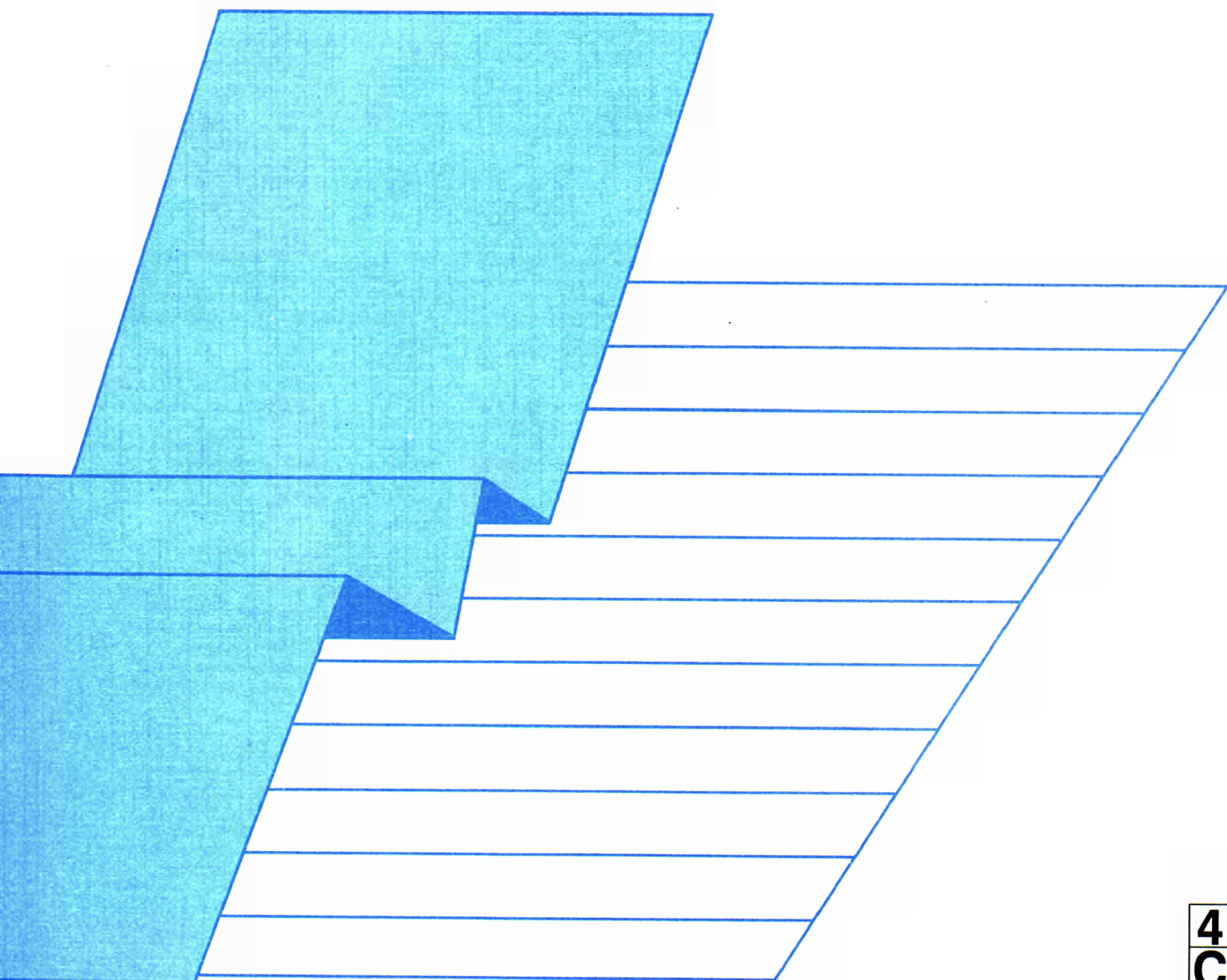


**BETRIEBSERGEBNISSE DER  
KERNKRAFTWERKE 1990**

**OPERATION OF  
NUCLEAR POWER STATIONS 1990**

**EXPLOITATION DES  
CENTRALES NUCLÉAIRES 1990**





STATISTISCHES AMT DER EUROPÄISCHEN GEMEINSCHAFTEN  
STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES  
OFFICE STATISTIQUE DES COMMUNAUTÉS EUROPÉENNES

L-2920 Luxembourg — Tél. 43 01-1 — Télex: Comeur Lu 3423  
B-1049 Bruxelles, bâtiment Berlaymont, rue de la Loi 200 (bureau de liaison) — Tél. 235 11 11

Eurostat hat die Aufgabe, den Informationsbedarf der Kommission und aller am Aufbau des Binnenmarktes Beteiligten mit Hilfe des europäischen statistischen Systems zu decken.

Um der Öffentlichkeit die große Menge an verfügbaren Daten zugänglich zu machen und Benutzern die Orientierung zu erleichtern, werden zwei Arten von Publikationen angeboten: Statistische Dokumente und Veröffentlichungen.

Statistische Dokumente sind für den Fachmann konzipiert und enthalten das ausführliche Datenmaterial: Bezugsdaten, bei denen die Konzepte allgemein bekannt, standardisiert und wissenschaftlich fundiert sind. Diese Daten werden in einer sehr tiefen Gliederung dargeboten. Die Statistischen Dokumente wenden sich an Fachleute, die in der Lage sind, selbständig die benötigten Daten aus der Fülle des dargebotenen Materials auszuwählen. Diese Daten sind in gedruckter Form und/oder auf Diskette, Magnetband, CD-ROM verfügbar. Statistische Dokumente unterscheiden sich auch optisch von anderen Veröffentlichungen durch den mit einer stilisierten Graphik versehenen weißen Einband.

Die zweite Publikationsart, die Veröffentlichungen, wenden sich an eine ganz bestimmte Zielgruppe, wie zum Beispiel an den Bildungsbereich oder an Entscheidungsträger in Politik und Verwaltung. Sie enthalten ausgewählte und auf die Bedürfnisse einer Zielgruppe abgestellte und kommentierte Informationen. Eurostat übernimmt hier also eine Art Beraterrolle.

Für einen breiteren Benutzerkreis gibt Eurostat Jahrbücher und periodische Veröffentlichungen heraus. Diese enthalten statistische Ergebnisse für eine erste Analyse sowie Hinweise auf weiteres Datenmaterial für vertiefende Untersuchungen. Diese Veröffentlichungen werden in gedruckter Form und in Datenbanken angeboten, die in Menütechnik zugänglich sind.

Um Benutzern die Datensuche zu erleichtern, hat Eurostat Themenkreise, d. h. eine Untergliederung nach Sachgebieten, eingeführt. Daneben sind sowohl die Statistischen Dokumente als auch die Veröffentlichungen in bestimmte Reihen, wie zum Beispiel „Jahrbücher“, „Konjunktur“, „Methoden“, untergliedert, um den Zugriff auf die statistischen Informationen zu erleichtern.

Y. Franchet  
Generaldirektor

It is Eurostat's responsibility to use the European statistical system to meet the requirements of the Commission and all parties involved in the development of the single market.

To ensure that the vast quantity of accessible data is made widely available, and to help each user make proper use of this information, Eurostat has set up two main categories of document: statistical documents and publications.

The statistical document is aimed at specialists and provides the most complete sets of data: reference data where the methodology is well established, standardized, uniform and scientific. These data are presented in great detail. The statistical document is intended for experts who are capable of using their own means to seek out what they require. The information is provided on paper and/or on diskette, magnetic tape, CD-ROM. The white cover sheet bears a stylized motif which distinguishes the statistical document from other publications.

The publications proper tend to be compiled for a well-defined and targeted public, such as educational circles or political and administrative decision-makers. The information in these documents is selected, sorted and annotated to suit the target public. In this instance, therefore, Eurostat works in an advisory capacity.

Where the readership is wider and less well defined, Eurostat provides the information required for an initial analysis, such as yearbooks and periodicals which contain data permitting more in-depth studies. These publications are available on paper or in Videotext databases.

To help the user focus his research, Eurostat has created 'themes', i.e. a subject classification. The statistical documents and publications are listed by series: e.g. yearbooks, short-term trends or methodology in order to facilitate access to the statistical data.

Y. Franchet  
Director-General

Pour établir, évaluer ou apprécier les différentes politiques communautaires, la Commission des Communautés européennes a besoin d'informations.

Eurostat a pour mission, à travers le système statistique européen, de répondre aux besoins de la Commission et de l'ensemble des personnes impliquées dans le développement du marché unique.

Pour mettre à la disposition de tous l'importante quantité de données accessibles et faire en sorte que chacun puisse s'orienter correctement dans cet ensemble, deux grandes catégories de documents ont été créées: les documents statistiques et les publications.

Le document statistique s'adresse aux spécialistes. Il fournit les données les plus complètes: données de référence où la méthodologie est bien connue, standardisée, normalisée et scientifique. Ces données sont présentées à un niveau très détaillé. Le document statistique est destiné aux experts capables de rechercher, par leurs propres moyens, les données requises. Les informations sont alors disponibles sur papier et/ou sur disquette, bande magnétique, CD-ROM. La couverture blanche ornée d'un graphisme stylisé démarque le document statistique des autres publications.

Les publications proprement dites peuvent, elles, être réalisées pour un public bien déterminé, ciblé, par exemple l'enseignement ou les décideurs politiques ou administratifs. Des informations sélectionnées, triées et commentées en fonction de ce public lui sont apportées. Eurostat joue, dès lors, le rôle de conseiller.

Dans le cas d'un public plus large, moins défini, Eurostat procure des éléments nécessaires à une première analyse, les annuaires et les périodiques, dans lesquels figurent les renseignements adéquats pour approfondir l'étude. Ces publications sont présentées sur papier ou dans des banques de données de type vidéotex.

Pour aider l'utilisateur à s'orienter dans ses recherches, Eurostat a créé les thèmes, c'est-à-dire une classification par sujet. Les documents statistiques et les publications sont répertoriés par série — par exemple, annuaire, conjoncture, méthodologie — afin de faciliter l'accès aux informations statistiques.

Y. Franchet  
Directeur général

**BETRIEBSERGEBNISSE DER  
KERNKRAFTWERKE 1990**

**OPERATION OF  
NUCLEAR POWER STATIONS 1990**

**EXPLOITATION DES  
CENTRALES NUCLÉAIRES 1990**

**Theme / Thème**  
**Miscellaneous / Divers**  
**Series / Série**

**4**  
**C**

**Accounts, surveys and statistics / Comptes, enquêtes et statistiques**

Diese Veröffentlichung fußt auf dem Ergebnis der Zusammenarbeit zwischen den Kernkraftbetrieben und dem Statistischen Amt der Europäischen Gemeinschaften.

This publication is the result of the collaboration between reactor operators and the Statistical Office of the European Communities.

Cette publication est le résultat d'une collaboration entre les exploitants des centrales et l'Office statistique des Communautés européennes.

Bibliographische Daten befinden sich am Ende der Veröffentlichung.

Cataloguing data can be found at the end of this publication.

Une fiche bibliographique figure à la fin de l'ouvrage.

Manuskript abgeschlossen im Mai 1991

Manuscript completed in May 1991

Manuscrit terminé en mai 1991

Luxembourg: Office des publications officielles des Communautés européennes, 1991

ISBN 92-826-2830-2

Kat./Cat.: CA-70-91-952-3A-C

© CECA-CEE-CEEA, Bruxelles • Luxembourg, 1991

Nachdruck, ausgenommen zu gewerblichen Zwecken, mit Quellenangabe gestattet.

Reproduction is authorized, except for commercial purposes, provided the source is acknowledged.

Reproduction autorisée, sauf à des fins commerciales, moyennant mention de la source.

*Printed in Belgium*

## I N H A L T

### ALLGEMEINE ERGEBNISSE

|  |    |
|--|----|
| Wichtigste statistische Daten für 1990 | 8  |
| Abkürzungen                            | 12 |

### BETRIEBLICHE MERKMALE NACH KRAFTWERKEN

|   |     |
|---|-----|
| Monatliche Betriebsergebnisse 1990            | .   |
| Zeitreihen mit jährlichen Betriebsergebnissen |     |
| BR Deutschland                                | 20  |
| France  | 42  |
| Italia  | 100 |
| Nederland                                     | 102 |
| Belgique/België                               | 104 |
| United Kingdom                                | 111 |
| España  | 136 |
| Definitionen                                  | 146 |

## C O N T E N T S

### GENERAL RESULTS

|                               |    |
|-------------------------------|----|
| Principal statistics for 1990 | 8  |
| Abbreviations                 | 12 |

### OPERATIONAL CHARACTERISTICS BY STATIONS

|   |     |
|---|-----|
| Monthly operations for 1990               | .   |
| Historical statistics of annual operation |     |
| BR Deutschland                            | 20  |
| France                                    | 42  |
| Italia                                    | 100 |
| Nederland                                 | 102 |
| Belgique/België                           | 104 |
| United Kingdom                            | 111 |
| España                                    | 136 |
| Definitions                               | 146 |

## T A B L E D E S M A T I E R E S

### RESULTATS GENERAUX

|  |    |
|--|----|
| Données caractéristiques de l'année 1990 | 8  |
| Sigles                                   | 12 |

### CARACTERISTIQUES D'EXPLOITATION PAR CENTRALES

#### Exploitation mensuelle 1990

#### Données historiques d'exploitation annuelle

|                 |     |
|-----------------|-----|
| BR Deutschland  | 20  |
| France          | 42  |
| Italia          | 100 |
| Nederland       | 102 |
| Belgique/België | 104 |
| United Kingdom  | 111 |
| España          | 136 |
| Définitions     | 146 |

VERZEICHNIS DER KERNKRAFTWERKE  
IN DER GEMEINSCHAFT

LISTING OF THE NUCLEAR POWER  
STATIONS IN THE COMMUNITY

LISTE DES CENTRALES NUCLEAIRES  
DE LA COMMUNAUTE

|                              | Seite/Page |                         | Seite/Page |                              | Seite/Page |
|------------------------------|------------|-------------------------|------------|------------------------------|------------|
| <b><u>BR DEUTSCHLAND</u></b> |            | <b><u>FRANCE</u></b>    |            | <b><u>BELGIQUE</u></b>       |            |
| KNK - 2                      | 20         | Gravelines T6           | 60         | Doel 1                       | 104        |
| Würgassen                    | 21         | Dampierre T1            | 61         | Doel 2                       | 105        |
| Brunsbüttel                  | 22         | Dampierre T2            | 62         | Doel 3                       | 106        |
| Isar Ohu I                   | 23         | Dampierre T3            | 63         | Doel 4                       | 107        |
| Isar Ohu II                  | 24         | Dampierre T4            | 64         | Tihange 1                    | 108        |
| Philippsburg I               | 25         | Tricastin T1            | 65         | Tihange 2                    | 109        |
| Krümmel                      | 26         | Tricastin T2            | 66         | Tihange 3                    | 110        |
| Obrigheim                    | 27         | Tricastin T3            | 67         |                              |            |
| Stade                        | 28         | Tricastin T4            | 68         |                              |            |
| Neckar Westheim I            | 29         | St. Laurent B1          | 69         |                              |            |
| Neckar Westheim II           | 30         | St. Laurent B2          | 70         |                              |            |
| Biblis A                     | 31         | Blayais T1              | 71         |                              |            |
| Biblis B                     | 32         | Blayais T2              | 72         | <b><u>UNITED KINGDOM</u></b> |            |
| Unterweser                   | 33         | Blayais T3              | 73         | Winfrith                     | 111        |
| Grafenrheinfeld              | 34         | Blayais T4              | 74         | Dounreay                     | 112        |
| Gundremmingen B              | 35         | Chinon B T1             | 75         | Calder Hall                  | 113        |
| Gundremmingen C              | 36         | Chinon B T2             | 76         | Chapelcross                  | 114        |
| Grohnde                      | 37         | Chinon B T3             | 77         | Bradwell                     | 115        |
| Philippsburg 2               | 38         | Chinon B T4             | 78         | Trawsfynydd                  | 116        |
| Mülheim-Kärlich              | 39         | Cruas T1                | 79         | Hinkley Point A              | 117        |
| Brokdorf                     | 40         | Cruas T2                | 80         | Dungeness A                  | 118        |
| Emsland                      | 41         | Cruas T3                | 81         | Sizewell                     | 119        |
|                              |            | Cruas T4                | 82         | Oldbury                      | 120        |
|                              |            | Paluel T1               | 83         | Wylfa                        | 121        |
| <b><u>FRANCE</u></b>         |            | Paluel T2               | 84         | Hunterstone B1               | 122        |
| Phénix                       | 42         | Paluel T3               | 85         | Hunterstone B2               | 123        |
| Creys-Malville               | 43         | Paluel T4               | 86         | Hinkley Point B1             | 124        |
| Chinon T3                    | 44         | St. Alban 1             | 87         | Hinkley Point B2             | 125        |
| St. Laurent A1               | 45         | St. Alban 2             | 88         | Dungeness B1                 | 126        |
| St. Laurent A2               | 46         | Flamanville 1           | 89         | Dungeness B2                 | 127        |
| Bugey T1                     | 47         | Flamanville 2           | 90         | Hartlepool A1                | 128        |
| Chooz                        | 48         | Cattenom 1              | 91         | Hartlepool A2                | 129        |
| Fessenheim 1                 | 49         | Cattenom 2              | 92         | Heysham 1A                   | 130        |
| Fessenheim 2                 | 50         | Cattenom 3              | 93         | Heysham 1B                   | 131        |
| Bugey T2                     | 51         | Bellevalle 1            | 94         | Heysham 2A                   | 132        |
| Bugey T3                     | 52         | Bellevalle 2            | 95         | Heysham 2B                   | 133        |
| Bugey T4                     | 53         | Nogent 1                | 96         | Torness 1                    | 134        |
| Bugey T5                     | 54         | Nogent 2                | 97         | Torness 2                    | 135        |
| Gravelines T1                | 55         | Golfech 1               | 98         |                              |            |
| Gravelines T2                | 56         | Penly 1                 | 99         | <b><u>ESPAÑA</u></b>         |            |
| Gravelines T3                | 57         |                         |            | Vandellos 1                  | 136        |
| Gravelines T4                | 58         | <b><u>ITALIA</u></b>    |            | St. Maria de Garoña          | 137        |
| Gravelines T5                | 59         | Caorso                  | 100        | Cofrentes                    | 138        |
|                              |            | Trino                   | 101        | Vandellos2                   | 139        |
|                              |            |                         |            | José Cabrera                 | 140        |
|                              |            | <b><u>NEDERLAND</u></b> |            | Almaraz 1                    | 141        |
|                              |            | Dodewaard               | 102        | Almaraz 2                    | 142        |
|                              |            | Borssele                | 103        | Asco 1                       | 143        |
|                              |            |                         |            | Asco 2                       | 144        |
|                              |            |                         |            | Trillo 1                     | 145        |





**ALLGEMEINE ERGEBNISSE**

**GENERAL RESULTS**

**RESULTATS GENERAUX**

DONNEES CARACTERISTIQUES DES EXPLOITATIONS NUCLEAIRES EN 1990

|   |     | E U R 1 2 |         |           | BELGIQUE/BELGIE |        |           |
|---|-----|-----------|---------|-----------|-----------------|--------|-----------|
|   |     | 1990      | 1989    | 1990/1989 | 1990            | 1989   | 1990/1989 |
| <b>PRODUCTION</b>   |     |           |         |           |                 |        |           |
| Thermal production  | GWh | 1827719   | 1825690 | 0.1%      | 124521          | 120537 | 3.3%      |
| Generation  | GWh | 628499    | 626446  | 0.3%      | 42721           | 41216  | 3.6%      |
| Net production  | GWh | 591578    | 589887  | 0.2%      | 40586           | 39133  | 3.7%      |
| of which :  |     |           |         |           |                 |        |           |
| Gas cooled reactors   | GWh | 29923     | 33785   | -11.4%    |                 |        |           |
| Advanced gas cooled reactors  | GWh | 32817     | 36552   | -10.2%    |                 |        |           |
| Light water reactors  | GWh | 526454    | 515846  | 2.0%      | 40586           | 39133  | 3.7%      |
| Fast reactors   | GWh | 2014      | 3279    | -38.5%    |                 |        |           |
| Others  | GWh | 368       | 423     | -13.0%    |                 |        |           |
| <b>1. Share of nuclear (heat generation) in total energy</b>                        |     |           |         |           |                 |        |           |
| - total primary energy production   | %   | 27.3      | 27.4    |           | 89.2            | 88.1   |           |
| - total energy consumption  | %   | 14.1      | 14.5    |           | 22.7            | 22.2   |           |
| <b>2. Share of nuclear (electricity production) in total electricity production</b> |     |           |         |           |                 |        |           |
|   | %   | 34.8      | 35.6    |           | 60.1            | 61.0   |           |
| <b>Equipment</b>  |     |           |         |           |                 |        |           |
| <b>1. Commissioned :</b>  |     |           |         |           |                 |        |           |
| Installed capacity  | MW  | 4109      | 1998    |           |                 |        |           |
| Maximum output capacity   | MW  | 3940      | 1850    |           |                 |        |           |
| <b>2. Decommissioned :</b>  |     |           |         |           |                 |        |           |
| Installed capacity  | MW  | 1118      | 473     |           |                 |        |           |
| Maximum output capacity   | MW  | 1050      | 434     |           |                 |        |           |
| <b>3. Rerated :</b>   |     |           |         |           |                 |        |           |
| Installed capacity  | MW  | -520      | +100    |           |                 |        |           |
| Maximum output capacity   | MW  | -560      | +110    |           |                 |        |           |
| <b>4. Situation end of year :</b>   |     |           |         |           |                 |        |           |
| Installed capacity  | MW  | 109908    | 107437  |           | 5766            | 5766   |           |
| Maximum output capacity   | MW  | 104363    | 102033  |           | 5501            | 5501   |           |
| of which :  |     |           |         |           |                 |        |           |
| Gas cooled reactors   | MW  | 5083      | 6133    |           |                 |        |           |
| Advanced gas cooled reactors  | MW  | 7510      | 8143    |           |                 |        |           |
| Light water reactors  | MW  | 89994     | 85981   |           | 5501            | 5501   |           |
| Fast reactors   | MW  | 1684      | 1684    |           |                 |        |           |
| Others  | MW  | 92        | 92      |           |                 |        |           |
| <b>PERFORMANCES (*)</b>   |     |           |         |           |                 |        |           |
| Mean energy availability factor   | %   | 70        |         |           | 85              | 82     |           |
| Load factor   | %   | 66        | 66      |           | 84              | 81     |           |
| of which :  |     |           |         |           |                 |        |           |
| Gas cooled reactors   | %   | 63        | 65      |           |                 |        |           |
| Boiling water reactors  | %   | 64        | 69      |           |                 |        |           |
| Pressurized water reactors  | %   | 70        | 68      |           | 84              | 81     |           |
| Advanced gas cooled reactors  | %   | 51        | 50      |           |                 |        |           |

(\*) > 100 MW - First connected to the grid before begin of the year

DONNEES CARACTERISTIQUES DES EXPLOITATIONS ANNUELLES EN 1990

|   |     | B. R. DEUTSCHLAND |        |           | ESPANA |        |           |
|---|-----|-------------------|--------|-----------|--------|--------|-----------|
|   |     | 1990              | 1989   | 1990/1989 | 1990   | 1989   | 1990/1989 |
| <b>PRODUCTION</b>   |     |                   |        |           |        |        |           |
| Thermal production  | GWh | 420554            | 426972 | -1.5%     | 159348 | 167533 | -4.8%     |
| Generation  | GWh | 147287            | 149452 | -1.4%     | 54263  | 56106  | -3.2%     |
| Net production  | GWh | 139301            | 141183 | -1.3%     | 51967  | 53761  | -3.3%     |
| of which :  |     |                   |        |           |        |        |           |
| Gas cooled reactors   | GWh |                   |        |           |        | 2454   | -100.0%   |
| Advanced gas cooled reactors  | GWh |                   |        |           |        |        |           |
| Light water reactors  | GWh | 139271            | 141196 | -1.3%     | 51967  | 51307  | 1.2%      |
| Fast reactors   | GWh | 29                | -12    |           |        |        |           |
| Others  | GWh |                   |        |           |        |        |           |
| <b>1. Share of nuclear (heat generation) in total energy</b>                        |     |                   |        |           |        |        |           |
| - total primary energy production   | %   | 29.0              | 29.0   |           | 45.0   | 46.4   |           |
| - total energy consumption  | %   | 13.5              | 14.0   |           | 16.2   | 17.0   |           |
| <b>2. Share of nuclear (electricity production) in total electricity production</b> |     |                   |        |           |        |        |           |
|   | %   | 33.1              | 34.3   |           | 35.9   | 38.6   |           |
| <b>Equipment</b>  |     |                   |        |           |        |        |           |
| <b>1. Commissioned :</b>  |     |                   |        |           |        |        |           |
| Installed capacity  | MW  |                   | 1316   |           |        |        |           |
| Maximum output capacity   | MW  |                   | 1225   |           |        |        |           |
| <b>2. Decommissioned :</b>  |     |                   |        |           |        |        |           |
| Installed capacity  | MW  |                   | 307    |           |        |        |           |
| Maximum output capacity   | MW  |                   | 296    |           |        |        |           |
| <b>3. Rerated :</b>   |     |                   |        |           |        |        |           |
| Installed capacity  | MW  | +42               | -8     |           |        |        |           |
| Maximum output capacity   | MW  | -155              | +10    |           |        |        |           |
| <b>4. Situation end of year :</b>   |     |                   |        |           |        |        |           |
| Installed capacity  | MW  | 23676             | 23634  |           | 7838   | 7838   |           |
| Maximum output capacity   | MW  | 22469             | 22624  |           | 7509   | 7509   |           |
| of which :  |     |                   |        |           |        |        |           |
| Gas cooled reactors   | MW  |                   |        |           | 480    | 480    |           |
| Advanced gas cooled reactors  | MW  |                   |        |           |        |        |           |
| Light water reactors  | MW  | 22452             | 22409  |           | 7029   | 7029   |           |
| Fast reactors   | MW  | 17                | 17     |           |        |        |           |
| Others  | MW  |                   |        |           |        |        |           |
| <b>PERFORMANCES (*)</b>   |     |                   |        |           |        |        |           |
| Mean energy availability factor   | %   | 74                | 75     |           | 79     | 81     |           |
| <b>Load factor</b>  |     |                   |        |           |        |        |           |
| of which :  | %   | 71                | 71     |           | 79     | 82     |           |
| Gas cooled reactors   | %   |                   |        |           |        | 58     |           |
| Boiling water reactors  | %   | 69                | 75     |           | 80     | 87     |           |
| Pressurized water reactors  | %   | 72                | 70     |           | 85     | 82     |           |
| Advanced gas cooled reactors  | %   |                   |        |           |        |        |           |

(\*) > 100 MW - First connected to the grid before begin of the year

DONNEES CARACTERISTIQUES DES EXPLOITATIONS NUCLEAIRES EN 1990

|   | FRANCE |        |           | ITALIA |      |           |
|---|--------|--------|-----------|--------|------|-----------|
|   | 1990   | 1989   | 1990/1989 | 1990   | 1989 | 1990/1989 |
| <b>PRODUCTION</b>   |        |        |           |        |      |           |
| Thermal production  | GWh    | 920297 | 892754    | 3.0%   |      |           |
| Generation  | GWh    | 314096 | 303922    | 3.3%   |      |           |
| Net production  | GWh    | 297834 | 288574    | 3.2%   | -48  | -56       |
| of which :  |        |        |           |        |      | -14.2%    |
| Gas cooled reactors   | GWh    | 5001   | 5843      | -14.4% |      |           |
| Advanced gas cooled reactors  | GWh    |        |           |        |      |           |
| Light water reactors  | GWh    | 291382 | 280481    | 3.8%   | -48  | -56       |
| Fast reactors   | GWh    | 1450   | 2249      | -35.5% |      |           |
| Others  | GWh    |        |           |        |      |           |
| <b>1. Share of nuclear (heat generation) in total energy</b>                        |        |        |           |        |      |           |
| - total primary energy production   | %      | 81.8   | 80.8      |        |      |           |
| - total energy consumption  | %      | 37.2   | 37.1      |        |      |           |
| <b>2. Share of nuclear (electricity production) in total electricity production</b> |        |        |           |        |      |           |
|   | %      | 74.5   | 74.5      |        |      |           |
| <b>Equipment</b>  |        |        |           |        |      |           |
| <b>1. Commissioned :</b>  |        |        |           |        |      |           |
| Installed capacity  | MW     | 4109   |           |        |      |           |
| Maximum output capacity   | MW     | 3940   |           |        |      |           |
| <b>2. Decommissioned :</b>  |        |        |           |        |      |           |
| Installed capacity  | MW     | 780    |           |        |      |           |
| Maximum output capacity   | MW     | 750    |           |        |      |           |
| <b>3. Retired :</b>   |        |        |           |        |      |           |
| Installed capacity  | MW     | -30    | +101      |        |      |           |
| Maximum output capacity   | MW     | -30    | +100      |        |      |           |
| <b>4. Situation end of year :</b>   |        |        |           |        |      |           |
| Installed capacity  | MW     | 58245  | 54886     |        | 1152 | 1152      |
| Maximum output capacity   | MW     | 55808  | 52588     |        | 1120 | 1120      |
| of which :  |        |        |           |        |      |           |
| Gas cooled reactors   | MW     | 990    | 1740      |        |      |           |
| Advanced gas cooled reactors  | MW     |        |           |        |      |           |
| Light water reactors  | MW     | 53385  | 49415     |        | 1120 | 1120      |
| Fast reactors   | MW     | 1433   | 1433      |        |      |           |
| Others  | MW     |        |           |        |      |           |
| <b>PERFORMANCES (*)</b>   |        |        |           |        |      |           |
| Mean energy availability factor   | %      | 70     | 69        |        |      |           |
| <b>Load factor</b>  |        |        |           |        |      |           |
| of which :  | %      | 64     | 63        |        |      |           |
| Gas cooled reactors   | %      | 33     | 36        |        |      |           |
| Boiling water reactors  | %      |        |           |        |      |           |
| Pressurized water reactors  | %      | 66     | 65        |        |      |           |
| Advanced gas cooled reactors  | %      |        |           |        |      |           |

(\*) > 100 MW - First connected to the grid before begin of the year

DONNEES CARACTERISTIQUES DES EXPLOITATIONS NUCLEAIRES EN 1990

|   | NEDERLAND |       |           | UNITED KINGDOM |        |           |        |
|---|-----------|-------|-----------|----------------|--------|-----------|--------|
|   | 1990      | 1989  | 1990/1989 | 1990           | 1989   | 1990/1989 |        |
| <b>PRODUCTION</b>   |           |       |           |                |        |           |        |
| Thermal production  | GWh       | 10242 | 11685     | -12.3%         | 192755 | 206206    | -6.5%  |
| Generation  | GWh       | 3501  | 4018      | -12.8%         | 66628  | 71729     | -7.1%  |
| Net production  | GWh       | 3294  | 3784      | -12.9%         | 58641  | 63505     | -7.6%  |
| of which :  |           |       |           |                |        |           |        |
| Gas cooled reactors   | GWh       |       |           |                | 24921  | 25487     | -2.2%  |
| Advanced gas cooled reactors  | GWh       |       |           |                | 32817  | 36552     | -10.2% |
| Light water reactors  | GWh       | 3294  | 3784      | -12.9%         |        |           |        |
| Fast reactors   | GWh       |       |           |                | 534    | 1042      | -48.7% |
| Others  | GWh       |       |           |                | 368    | 423       | -13.0% |
| <b>1. Share of nuclear (heat generation) in total energy</b>                        |           |       |           |                |        |           |        |
| - total primary energy production   | %         | 1.4   | 1.7       |                | 8.0    | 8.6       |        |
| - total energy consumption  | %         | 1.5   | 1.6       |                | 7.7    | 8.4       |        |
| <b>2. Share of nuclear (electricity production) in total electricity production</b> |           |       |           |                |        |           |        |
|   | %         | 4.9   | 5.3       |                | 19.7   | 21.7      |        |
| <b>Equipment</b>  |           |       |           |                |        |           |        |
| <b>1. Commissioned :</b>  |           |       |           |                |        |           |        |
| Installed capacity  | MW        |       |           |                |        | 682       |        |
| Maximum output capacity   | MW        |       |           |                |        | 625       |        |
| <b>2. Decommissioned :</b>  |           |       |           |                |        |           |        |
| Installed capacity  | MW        |       |           |                | 338    | 166       |        |
| Maximum output capacity   | MW        |       |           |                | 300    | 138       |        |
| <b>3. Retired :</b>   |           |       |           |                |        |           |        |
| Installed capacity  | MW        |       |           |                | -592   |           |        |
| Maximum output capacity   | MW        |       |           |                | -633   |           |        |
| <b>4. Situation end of year :</b>   |           |       |           |                |        |           |        |
| Installed capacity  | MW        | 539   | 539       |                | 12692  | 13622     |        |
| Maximum output capacity   | MW        | 507   | 507       |                | 11449  | 12382     |        |
| of which :  |           |       |           |                |        |           |        |
| Gas cooled reactors   | MW        |       |           |                | 3613   | 3913      |        |
| Advanced gas cooled reactors  | MW        |       |           |                | 7510   | 8143      |        |
| Light water reactors  | MW        | 507   | 507       |                |        |           |        |
| Fast reactors   | MW        |       |           |                | 234    | 234       |        |
| Others  | MW        |       |           |                | 92     | 92        |        |
| <b>PERFORMANCES (*)</b>   |           |       |           |                |        |           |        |
| Mean energy availability factor   | %         | 76    | 88        |                | 59     |           |        |
| Load factor   | %         | 68    | 86        |                | 59     | 58        |        |
| of which :  |           |       |           |                |        |           |        |
| Gas cooled reactors   | %         |       |           |                | 79     | 74        |        |
| Boiling water reactors  | %         |       |           |                |        |           |        |
| Pressurized water reactors  | %         | 68    | 86        |                |        |           |        |
| Advanced gas cooled reactors  | %         |       |           |                | 51     | 50        |        |

(\*) > 100 MW - First connected to the grid at the beginning of the year

## ABKÜRZUNGEN

|  |      |
|--|------|
| Gasgekühlter Reaktor                     | GCR  |
| Fortgeschrittener Gasgekühlter Reaktor   | AGR  |
| Leichtwasser Reaktor                     | LWR  |
| Siedewasser Reaktor                      | BWR  |
| Druckwasser Reaktor                      | PWR  |
| Schwerwasser Reaktor                     | HWR  |
| Leichtwasser-Graphit Moderierter Reaktor | RBMK |
| Hochtemperatur Reaktor                   | HTR  |
| Schneller Na-gekühlter Reaktor           | FBR  |

## ABBREVIATIONS

|                                   |      |
|-----------------------------------|------|
| Gas cooled reactor                | GCR  |
| Advanced gas cooled reactor       | AGR  |
| Light water reactor               | LWR  |
| Boiling water reactor             | BWR  |
| Pressurized water reactor         | PWR  |
| Heavy water reactor               | HWR  |
| Water, graphite, enriched uranium | RBMK |
| High temperature reactor          | HTR  |
| Fast breeder reactor              | FBR  |

## SIGLES

|  |      |
|--|------|
| Réacteur refroidi au gaz naturel (uranium naturel) | GCR  |
| Réacteur refroidi au gaz (uranium enrichi)         | AGR  |
| Réacteur à eau légère                              | LWR  |
| Réacteur à eau bouillante                          | BWR  |
| Réacteur à eau pressurisée                         | PWR  |
| Réacteur à eau lourde                              | HWR  |
| Eau, graphite, uranium enrichi                     | RBMK |
| Réacteur à haute température                       | HTR  |
| Réacteur surrégénérateur à uranium/plutonium       | FBR  |

KRAFTWERKE IN BAU

STATIONS UNDER CONSTRUCTION

CENTRALES EN CONSTRUCTION

| STATION NAME<br>NOM DE LA CENTRALE | Type of reactor<br>Type de reacteur | Nominal gross<br>Puiss. max. brute | Max output net<br>Puiss. max. nette | 1st coupling to grid<br>Mise en service |
|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|---|
| CATTENOM-4                         | PWR                                 | 1362                               | 1300                                | 1991                                    |
| CHOOZ-B1                           | PWR                                 | 1516                               | 1455                                | 1991                                    |
| PENLY-2                            | PWR                                 | 1382                               | 1330                                | 1992                                    |
| CHOOZ-B2                           | PWR                                 | 1516                               | 1455                                | 1993                                    |
| GOLFECH-2                          | PWR                                 | 1365                               | 1310                                | 1993                                    |
| TOTAL FRANCE                       | 5                                   | 7141                               | 6850                                |   |
| SIZEWELL-B                         | PWR                                 | 1258                               | 1188                                | 1994                                    |
| TOTAL UNITED KINGDOM               | 1                                   | 1258                               | 1188                                |   |
| TOTAL EUR 12                       | 6                                   | 8399                               | 8038                                |   |

PAGE 1

91-05-17 09:19:38

KRAFTWERKE IN BAU  
AUFGESCHLUSSELT NACH JAHR  
UND REAKTORTYP

STATIONS UNDER CONSTRUCTION  
BREAK-DOWN BY YEAR  
AND REACTOR TYPE

CENTRALES EN CONSTRUCTION  
VENTILATION PAR AN  
ET PAR TYPE DE REACTEUR

E U R 1 2

| Commissioning<br>Mise en service | AGR      |        | BWR      |        | PWR      |        | OTHERS / AUTRES |        | TOTAL    |        |
|----------------------------------|----------|--------|----------|--------|----------|--------|-----------------|--------|----------|--------|
|                                  | MW gross | MW net | MW gross | MW net | MW gross | MW net | MW gross        | MW net | MW gross | MW net |
| 1991                             |          |        |          |        | 2878     | 2755   |                 |        | 2878     | 2755   |
| 1992                             |          |        |          |        | 1382     | 1330   |                 |        | 1382     | 1330   |
| 1993                             |          |        |          |        | 2881     | 2765   |                 |        | 2881     | 2765   |
| 1994                             |          |        |          |        | 1258     | 1188   |                 |        | 1258     | 1188   |
| TOTAL                            |          |        |          |        | 8399     | 8038   |                 |        | 8399     | 8038   |



LEISTUNGSANALYSE (\*)  
 NACH REAKTORTYP

 PERFORMANCE ANALYSIS (\*)  
 BY TYPE OF REACTOR

 ANALYSE DES PERFORMANCES (\*)  
 PAR TYPE DE REACTEUR

| Year of<br>operation | GCR     |        |        |    | BWR     |        |        |    | PWR     |        |        |    | AGR     |        |        |    | Annee<br>d'exploitation |
|----------------------|---------|--------|--------|----|---------|--------|--------|----|---------|--------|--------|----|---------|--------|--------|----|-------------------------|
|                      | A<br>MW | B<br>% | C<br>% | D  | A<br>MW | B<br>% | C<br>% | D  | A<br>MW | B<br>% | C<br>% | D  | A<br>MW | B<br>% | C<br>% | D  |                         |
| 1983                 | 6604    | 68.8   | 68.8   | 18 | 4445    | 60.2   | 58.9   | 6  | 32892   | 70.9   | 68.4   | 40 | 2270    | 78.4   | 79.6   | 4  | 1983                    |
| 1984                 | 6604    | 71.2   | 71.3   | 18 | 5705    | 77.5   | 76.5   | 7  | 38244   | 80.5   | 76.7   | 46 | 3650    | 56.1   | 56.2   | 7  | 1984                    |
| 1985                 | 6604    | 72.5   | 73.5   | 18 | 9132    | 79.7   | 78.2   | 10 | 47117   | 79.3   | 76.1   | 54 | 4670    | 49.7   | 48.4   | 9  | 1985                    |
| 1986                 | 6424    | 68.4   | 67.0   | 17 | 9132    | 81.8   | 79.0   | 10 | 54939   | 77.5   | 73.2   | 61 | 5030    | 46.3   | 44.7   | 10 | 1986                    |
| 1987                 | 6424    | 66.8   | 64.8   | 17 | 9132    | 75.9   | 72.1   | 10 | 63684   | 76.4   | 69.5   | 68 | 5030    | 44.5   | 41.2   | 10 | 1987                    |
| 1988                 | 6271    | 74.1   | 69.7   | 16 | 9282    | 77.5   | 67.3   | 11 | 69452   | 75.9   | 65.9   | 73 | 5030    | 54.7   | 45.7   | 10 | 1988                    |
| 1989                 | 6271    | 69.0   | 62.5   | 16 | 9132    | 75.3   | 69.4   | 10 | 75642   | 72.3   | 68.1   | 78 | 6885    | 64.9   | 50.0   | 13 | 1989                    |
| 1990                 | 6133    | 70.5   | 57.4   | 15 | 9132    | 69.4   | 64.0   | 10 | 76867   | 73.7   | 69.5   | 79 | 7510    | 50.8   | 50.6   | 14 | 1990                    |

(\*) = Synchronisiert vor Jahresanfang  
 Connected to the grid before begin of the year  
 Couplees au reseau avant le debut de l'annee

A = Gesamtleistung für die Berechnungen  
 Total power used in performance calculations  
 Puissance totale servant au calcul de performance

B = Verfügbarkeitsgrad  
 Energy availability factors  
 Taux de disponibilite en energie

C = Arbeitsausnutzungsgrad  
 Load factor  
 Taux d'utilisation en energie

D = Anzahl von Kraftwerken  
 Number of stations  
 Nombre de centrales

PAGE 1

91-05-17 09:20:10

## NICHVERFUGBARKEIT

## ENERGY UNAVAILABILITY

## INDISPONIBILITE EN ENERGIE

der Kraftwerke > 100 MW  
erste Netzsynchroisation  
vor 1990

of power stations > 100 MW  
first connected to the grid  
before 1990

des centrales > 100 MW  
premier couplage au reseau  
avant 1990

EUR 1 2

| Reactor family size<br>Filiere<br>Tranche de puissance | Number of stations<br>Nombre de stations | Maximum output capacity<br>Puissance maximale possible | Energy unavailability factor<br>Taux d'indisponibilite en energie |                          |       |
|--|--|--|---|--------------------------|-------|
|  |  |  | Planned Programme   | Unplanned Hors programme | TOTAL |
|  |  | MW   | %   | %                        | %     |
| 1. GCR   | 15                                       | 6133   | 11.1  | 18.3                     | 29.4  |
| < 600 MW   | 14                                       | 5293   | 11.6  | 20.9                     | 32.6  |
| 600 - 899 MW   | 1  | 840  | 7.8   | 2.2                      | 10.1  |
| 900 - 1200 MW  |  |  | 0.0   | 0.0                      | 0.0   |
| > 1200 MW  |  |  | 0.0   | 0.0                      | 0.0   |
| 2. AGR   | 14                                       | 7510   | 45.7  | 3.4                      | 49.1  |
| < 600 MW   | 10                                       | 5030   | 33.7  | 4.2                      | 38.0  |
| 600 - 899 MW   | 4  | 2480   | 69.5  | 1.7                      | 71.3  |
| 900 - 1200 MW  |  |  | 0.0   | 0.0                      | 0.0   |
| > 1200 MW  |  |  | 0.0   | 0.0                      | 0.0   |
| 3. BWR   | 10                                       | 9132   | 19.5  | 11.0                     | 30.5  |
| < 600 MW   | 1  | 440  | 30.6  | 2.9                      | 33.6  |
| 600 - 899 MW   | 5  | 4005   | 23.9  | 22.5                     | 46.4  |
| 900 - 1200 MW  | 1  | 939  | 11.2  | 3.6                      | 14.9  |
| > 1200 MW  | 3  | 3748   | 15.6  | 1.5                      | 17.2  |
| 4. PWR   | 79                                       | 76867  | 15.8  | 10.3                     | 26.2  |
| < 600 MW   | 7  | 2310   | 15.7  | 26.9                     | 42.7  |
| 600 - 899 MW   | 19                                       | 16439  | 18.2  | 5.1                      | 23.3  |
| 900 - 1200 MW  | 29                                       | 26980  | 14.5  | 8.9                      | 23.4  |
| > 1200 MW  | 24                                       | 31138  | 15.8  | 13.1                     | 29.0  |
| 5. FBR   | 3  | 1667   | 16.2  | 63.0                     | 79.3  |
| < 600 MW   | 2  | 467  | 32.7  | 30.5                     | 63.3  |
| 600 - 899 MW   |  |  | 0.0   | 0.0                      | 0.0   |
| 900 - 1200 MW  | 1  | 1200   | 9.5   | 76.1                     | 85.7  |
| > 1200 MW  |  |  | 0.0   | 0.0                      | 0.0   |
| 6. TOTAL   | 121                                      | 1309   | 18.1  | 11.2                     | 29.3  |
| < 600 MW   | 34                                       | 13540  | 21.9  | 15.5                     | 37.5  |
| 600 - 899 MW   | 29                                       | 23764  | 24.1  | 7.5                      | 31.7  |
| 900 - 1200 MW  | 31                                       | 29119  | 14.2  | 11.5                     | 25.7  |
| > 1200 MW  | 27                                       | 34886  | 15.8  | 11.9                     | 27.7  |

LEISTUNGSANALYSE (M)  
NACH ALTERSGRUPPENPERFORMANCE ANALYSIS (M)  
BY AGEANALYSE DES PERFORMANCES (M)  
SUJON L'AGE

| Connection<br>to<br>grid |      | Year of operation / Année d'exploitation |       |       |       |       |       |       |       | Couplage<br>au<br>reseau |
|--------------------------|------|--|-------|-------|-------|-------|-------|-------|-------|--------------------------|
|                          |      | 1983                                     | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                          |
| 1956-1976                | A MW | 17956                                    | 17864 | 17599 | 17599 | 17435 | 17422 | 17284 | 16234 | 1956-1976                |
|                          | B X  | 66                                       | 77    | 75    | 72    | 71    | 75    | 68    | 68    |                          |
|                          | C X  | 65                                       | 76    | 74    | 70    | 67    | 70    | 64    | 65    |                          |
|                          | D    | 46                                       | 44    | 41    | 41    | 39    | 38    | 37    | 34    |                          |
| 1977-1979                | A MW | 9776                                     | 9776  | 9776  | 9776  | 9776  | 9776  | 9776  | 9776  | 1977-1979                |
|                          | B X  | 76                                       | 78    | 78    | 75    | 70    | 66    | 69    | 61    |                          |
|                          | C X  | 74                                       | 75    | 76    | 72    | 65    | 59    | 62    | 56    |                          |
|                          | D    | 12                                       | 12    | 12    | 12    | 12    | 12    | 12    | 12    |                          |
| 1980-1982                | A MW | 19311                                    | 19311 | 19311 | 19311 | 19311 | 19311 | 19311 | 19311 | 1980-1982                |
|                          | B X  | 69                                       | 81    | 82    | 82    | 77    | 78    | 78    | 75    |                          |
|                          | C X  | 66                                       | 77    | 78    | 77    | 70    | 67    | 74    | 70    |                          |
|                          | D    | 21                                       | 21    | 21    | 21    | 21    | 21    | 21    | 21    |                          |
| 1983                     | A MW |  | 7992  | 7992  | 7992  | 7992  | 7992  | 7992  | 7992  | 1983                     |
|                          | B X  |  | 65    | 67    | 72    | 72    | 74    | 80    | 74    |                          |
|                          | C X  |  | 62    | 63    | 69    | 63    | 61    | 69    | 69    |                          |
|                          | D    |  | 10    | 10    | 10    | 10    | 10    | 10    | 10    |                          |
| 1984                     | A MW |  |       | 13320 | 13320 | 13320 | 13320 | 13320 | 13320 | 1984                     |
|                          | B X  |  |       | 73    | 70    | 77    | 81    | 77    | 77    |                          |
|                          | C X  |  |       | 69    | 65    | 72    | 67    | 75    | 74    |                          |
|                          | D    |  |       | 13    | 13    | 13    | 13    | 13    | 13    |                          |
| 1985                     | A MW |  |       |       | 8478  | 8478  | 8478  | 8182  | 8182  | 1985                     |
|                          | B X  |  |       |       | 69    | 69    | 73    | 73    | 74    |                          |
|                          | C X  |  |       |       | 65    | 66    | 65    | 70    | 71    |                          |
|                          | D    |  |       |       | 9     | 9     | 9     | 8     | 8     |                          |
| 1986                     | A MW |  |       |       |       | 9945  | 9945  | 9945  | 9945  | 1986                     |
|                          | B X  |  |       |       |       | 62    | 52    | 51    | 55    |                          |
|                          | C X  |  |       |       |       | 55    | 48    | 47    | 50    |                          |
|                          | D    |  |       |       |       | 8     | 8     | 8     | 8     |                          |
| 1987                     | A MW |  |       |       |       |       | 5768  | 5768  | 5768  | 1987                     |
|                          | B X  |  |       |       |       |       | 77    | 41    | 76    |                          |
|                          | C X  |  |       |       |       |       | 63    | 40    | 71    |                          |
|                          | D    |  |       |       |       |       | 5     | 5     | 5     |                          |
| 1988                     | A MW |  |       |       |       |       |       | 8045  | 8045  | 1988                     |
|                          | B X  |  |       |       |       |       |       | 75    | 63    |                          |
|                          | C X  |  |       |       |       |       |       | 69    | 62    |                          |
|                          | D    |  |       |       |       |       |       | 8     | 8     |                          |
| 1989                     | A MW |  |       |       |       |       |       |       | 1850  | 1989                     |
|                          | B X  |  |       |       |       |       |       |       | 71    |                          |
|                          | C X  |  |       |       |       |       |       |       | 71    |                          |
|                          | D    |  |       |       |       |       |       |       | 2     |                          |

(M) = Synchronisiert vor Jahresanfang  
Connected to the grid before begin of the year  
Couplé au réseau avant le début de l'année

A = Netto-Engpassleistung  
Maximum output capacity  
Puissance maximale possible nette

D = Verfügbarkeitsgrad  
Energy availability factors  
Taux de disponibilité en énergie

C = Arbeitsausnutzungsgrad  
Load factor  
Taux d'utilisation en énergie

D = Anzahl von Kraftwerken  
Number of stations  
Nombre de centrales



BETRIEBLICHE MERKMALE NACH KRAFTWERKEN  
Monatliche Betriebsergebnisse 1990  
Zeitreihen mit jährlichen Betriebsergebnissen

OPERATIONAL CHARACTERISTICS BY STATIONS  
Monthly operations for 1990  
Historical statistic of annual operation

CARACTERISTIQUES D'EXPLOITATION PAR CENTRALES  
Exploitation mensuelle au cours de 1990  
Données historiques d'exploitation annuelle

STATION : KNK II

BR DEUTSCHLAND

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |       |
|----------------------------------|------------|----------------------------|-------|
| REAKTORTYP                       | FBR        | THERMISCHE REAKTORLEISTUNG | 58 MW |
| ERSTE KRITIKALITAET              | 10.10.1977 | BRUTTO-ENGPASSLEISTUNG     | 20 MW |
| ERSTE NETZSYNCHRONISATION        | 09.04.1978 | NETTO-ENGPASSLEISTUNG      | 17 MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 03.03.1979 |                            |       |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|------|------|------|------|------|------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |      |      |      |      |      |      |                              |
| THERMISCHE                              | GWH     | 656                          | 207  | 217  | 62   | 72   | 0    | 0    | 158  | 1372                         |
| ELEKTRISCHE BRUTTO                      | GWH     | 197                          | 68   | 69   | 19   | 21   | 0    | 0    | 44   | 418                          |
| ELEKTRISCHE NETTO                       | GWH     | 123                          | 49   | 51   | 5    | 7    | -9   | -11  | 30   | 243                          |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 15161                        | 4178 | 3966 | 1139 | 2538 | 0    | 0    | 4215 | 31197                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 8345                         | 3399 | 2996 | 307  | 403  | 0    | 0    | 1761 | 17211                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 21                           | 39   | 38   | 13   | 21   | 0    | 0    | 49   | 22                           |
| ARBEITSAUSNUTZUNG                       | %       | 17                           | 39   | 34   | 4    | 5    | -    | -    | 20   | 14                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                  |         | JAN  | FEB  | MAR  | APR  | MAI   | JUN  | JUL  | AUG  | SEP  | OKT  | NOV   | DEZ   | JAHR |
|----------------------------------|---------|------|------|------|------|-------|------|------|------|------|------|-------|-------|------|
| VERFUEGBARE ARBEIT               | GWH     | 0    | 7    | 6    | 8    | 13    | 6    | 0    | 0    | 0    | 5    | 12    | 13    | 70   |
| ENERGIEERZEUGUNG                 |         |      |      |      |      |       |      |      |      |      |      |       |       |      |
| THERMISCHE                       | GWH     | 0    | 23   | 15   | 17   | 26    | 13   | 0    | 0    | 0    | 12   | 25    | 26    | 158  |
| ELEKTRISCHE BRUTTO               | GWH     | 0    | 5    | 4    | 5    | 8     | 4    | 0    | 0    | 0    | 3    | 8     | 8     | 44   |
| ELEKTRISCHE NETTO                | GWH     | -0   | 4    | 3    | 4    | 6     | 3    | -0   | -0   | -0   | 3    | 6     | 6     | 30   |
| ELEKTRISCHE NETTO HOECHSTLAST MW |         |      | 9    | 9    | 9    | 9     | 9    |      |      |      | 9    | 9     | 9     | 9    |
| BETRIEBSZEIT<br>DES GENERATORS   | STUNDEN | 0    | 457  | 375  | 489  | 744   | 369  | 0    | 0    | 0    | 317  | 720   | 744   | 4215 |
| ZEIT AUSNUTZUNG                  | %       | 0.0  | 68.0 | 50.5 | 67.9 | 100.0 | 51.3 | 0.0  | 0.0  | 0.0  | 42.6 | 100.0 | 100.0 | 48.1 |
| ARBEITSVERFUEGBARKEIT            | %       | 1.8  | 68.7 | 51.5 | 68.5 | 100.0 | 52.1 | 1.8  | 1.8  | 1.8  | 43.6 | 100.0 | 100.0 | 49.0 |
| ARBEITSHICHTVERFUEGBARKEIT       | %       | 98.2 | 31.3 | 48.5 | 31.5 | 0.0   | 47.9 | 98.2 | 98.2 | 98.2 | 56.4 | 0.0   | 0.0   | 51.0 |
| DAVON: GEPLANT                   | %       | 98.2 | 31.3 | 0.0  | 31.5 | 0.0   | 21.7 | 98.2 | 98.2 | 98.2 | 56.4 | 0.0   | 0.0   | 44.7 |
| NICHTGEPLANT                     | %       | 0.0  | 0.0  | 48.5 | 0.0  | 0.0   | 26.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 6.3  |
| ARBEITSAUSNUTZUNG                | %       | -    | 31.3 | 24.4 | 32.4 | 46.8  | 23.9 | -    | -    | -    | 20.1 | 40.0  | 46.9  | 20.1 |
| THERMISCHER NETTOWIRKUNGSGRAD    | %       | -    | 15.4 | 20.7 | 23.4 | 22.6  | 22.4 | -    | -    | -    | 20.9 | 23.3  | 22.9  | 19.0 |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 1912 | MW |
| ERSTE KRITIKALITAET              | 22.10.1971 | BRUTTO-ENGPASSLEISTUNG     | 670  | MW |
| ERSTE NETZSYNCHRONISATION        | 18.12.1971 | NETTO-ENGPASSLEISTUNG      | 640  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 11.11.1975 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990 | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |      |                              |
| THERMISCHE                              | GWH     | 79844                        | 13353 | 13883 | 14561 | 14307 | 14220 | 11634 | 3259 | 165060                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 27463                        | 4683  | 4850  | 5049  | 4950  | 4883  | 3971  | 1143 | 56993                        |
| ELEKTRISCHE NETTO                       | GWH     | 26254                        | 4479  | 4643  | 4822  | 4732  | 4655  | 3787  | 1091 | 51463                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 55420                        | 7101  | 7947  | 7807  | 7929  | 7747  | 6241  | 1795 | 101987                       |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 41010                        | 6992  | 7253  | 7534  | 7393  | 7273  | 5922  | 1708 | 85086                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 39                           | 80    | 87    | 86    | 87    | 88    | 83    | 29   | 53                           |
| ARBEITSAUSNUTZUNG                       | %       | 39                           | 80    | 83    | 86    | 84    | 83    | 68    | 20   | 51                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                  |         | JAN  | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG   | SEP   | OKT  | NOV  | DEZ   | JAHR |
|----------------------------------|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|------|
| VERFUEGBARE ARBEIT               | GWH     | 466  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 340  | 359  | 474   | 1639 |
| ENERGIEERZEUGUNG                 |         |      |       |       |       |       |       |       |       |       |      |      |       |      |
| THERMISCHE                       | GWH     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 766  | 1073 | 1420  | 3259 |
| ELEKTRISCHE BRUTTO               | GWH     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 264  | 376  | 503   | 1143 |
| ELEKTRISCHE NETTO                | GWH     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 252  | 359  | 480   | 1091 |
| ELEKTRISCHE NETTO HOECHSTLAST MW |         |      |       |       |       |       |       |       |       |       | 645  | 645  | 652   | 652  |
| BETRIEBSZEIT<br>DES GENERATORS   | STUNDEN | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 446  | 605  | 744   | 1795 |
| ZEITAUSNUTZUNG                   | %       | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 59.9 | 84.0 | 100.0 | 20.5 |
| ARBEITSVERFUEGBARKEIT            | %       | 98.0 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 71.5 | 76.0 | 99.8  | 29.2 |
| ARBEITSHICHTVERFUEGBARKEIT       | %       | 2.0  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 28.5 | 22.0 | 0.2   | 70.8 |
| DAVON: GEPLANT                   | %       | 2.0  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 25.8 | 0.0  | 0.0   | 68.7 |
| HICHTGEPLANT                     | %       | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 2.7  | 22.0 | 0.2   | 2.1  |
| ARBEITSAUSNUTZUNG                | %       | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 53.0 | 70.0 | 100.8 | 19.5 |
| THERMISCHER NETTOWIRKUNGSGRAD    | %       | -    | -     | -     | -     | -     | -     | -     | -     | -     | 32.9 | 33.5 | 33.8  | 33.5 |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 2292 | MW |
| ERSTE KRITIKALITAET              | 22.06.1976 | BRUTTO-ENGPASSLEISTUNG     | 806  | MW |
| ERSTE NETZSYNCHRONISATION        | 13.07.1976 | NETTO-ENGPASSLEISTUNG      | 771  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 09.02.1977 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 54069                        | 16226 | 16840 | 16866 | 15562 | 15304 | 12627 | 14628 | 162122                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 18449                        | 5589  | 5883  | 5889  | 5473  | 5312  | 4296  | 5011  | 55902                        |
| ELEKTRISCHE NETTO                       | GWH     | 17555                        | 5334  | 5625  | 5632  | 5233  | 5085  | 4097  | 4780  | 53341                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 27083                        | 7549  | 7661  | 7802  | 7837  | 7800  | 6730  | 8527  | 80989                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 22885                        | 6931  | 7297  | 7315  | 6789  | 6597  | 5317  | 6202  | 69333                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 35                           | 79    | 83    | 86    | 86    | 86    | 72    | 94    | 59                           |
| ARBEITSAUSNUTZUNG                       | %       | 35                           | 79    | 83    | 84    | 78    | 75    | 61    | 71    | 55                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN  | FEB  | MAR   | APR   | MAI   | JUN  | JUL  | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|------|------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 477  | 503  | 571   | 551   | 569   | 548  | 505  | 557   | 552   | 550   | 496   | 455   | 6334  |
| ENERGIEERZEUGUNG               |         |      |      |       |       |       |      |      |       |       |       |       |       |       |
| THERMISCHE                     | GWH     | 1241 | 1386 | 1356  | 1236  | 1283  | 1212 | 1096 | 1174  | 1161  | 1213  | 1150  | 1120  | 14628 |
| ELEKTRISCHE BRUTTO             | GWH     | 436  | 492  | 476   | 425   | 434   | 410  | 368  | 391   | 388   | 410   | 394   | 387   | 5011  |
| ELEKTRISCHE NETTO              | GWH     | 416  | 470  | 455   | 406   | 415   | 392  | 351  | 372   | 370   | 390   | 375   | 368   | 4780  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 770  | 770  | 765   | 770   | 760   | 755  | 616  | 620   | 620   | 600   | 650   | 690   | 770   |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 643  | 660  | 743   | 720   | 744   | 669  | 675  | 744   | 721   | 744   | 720   | 744   | 8527  |
| ZEIT AUSNUTZUNG                | %       | 86.4 | 98.2 | 100.0 | 100.0 | 100.0 | 92.9 | 90.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 97.3  |
| ARBEITSVERFUEGBARKEIT          | %       | 83.2 | 97.3 | 99.7  | 99.3  | 99.2  | 98.8 | 88.1 | 97.1  | 99.4  | 95.9  | 87.4  | 77.4  | 93.9  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 16.8 | 2.7  | 0.3   | 0.7   | 0.8   | 1.2  | 11.9 | 2.9   | 0.6   | 4.1   | 10.6  | 20.6  | 6.1   |
| DAVON: GEPLANT                 | %       | 11.1 | 0.2  | 0.1   | 0.0   | 0.4   | 0.9  | 10.0 | 0.0   | 0.1   | 2.4   | 10.6  | 20.6  | 4.7   |
| NICHTGEPLANT                   | %       | 5.7  | 2.5  | 0.2   | 0.7   | 0.4   | 0.3  | 1.9  | 2.9   | 0.5   | 1.7   | 0.0   | 0.0   | 1.4   |
| ARBEITSAUSNUTZUNG              | %       | 72.5 | 90.7 | 79.4  | 73.1  | 72.4  | 70.6 | 61.2 | 69.9  | 66.5  | 68.0  | 67.6  | 64.2  | 70.8  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.5 | 33.9 | 33.6  | 32.8  | 32.3  | 32.4 | 32.0 | 31.7  | 31.8  | 32.2  | 32.6  | 32.9  | 32.7  |



STATION : ISAR 1 (KKI)

BR DEUTSCHLAND

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 2575 | MW |
| ERSTE KRITIKALITAET              | 20.11.1977 | BRUTTO-ENGPASSLEISTUNG     | 907  | MW |
| ERSTE NETZSYNCHRONISATION        | 03.12.1977 | NETTO-ENGPASSLEISTUNG      | 870  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 21.03.1979 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 76009                        | 16997 | 19665 | 19124 | 21202 | 17055 | 15825 | 15569 | 201446                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 25849                        | 5839  | 6806  | 6656  | 7464  | 5899  | 5451  | 5302  | 69266                        |
| ELEKTRISCHE NETTO                       | GWH     | 24740                        | 5587  | 6516  | 6370  | 7166  | 5639  | 5201  | 5051  | 66269                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 33789                        | 7262  | 8006  | 7871  | 8335  | 7674  | 7233  | 7577  | 87747                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 28501                        | 6439  | 7490  | 7323  | 8234  | 6483  | 5974  | 5808  | 76252                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 54                           | 74    | 86    | 83    | 94    | 82    | 74    | 74    | 68                           |
| ARBEITSAUSNUTZUNG                       | %       | 54                           | 73    | 86    | 84    | 94    | 74    | 68    | 66    | 67                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAH   | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG   | SEP   | OKT  | NOV   | DEZ  | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 591   | 530   | 602   | 564   | 601   | 552   | 532   | 487   | 454   | 158  | 0     | 577  | 5648  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |       |       |       |       |      |       |      |       |
| THERMISCHE                     | GWH     | 1673  | 1516  | 1643  | 1362  | 1371  | 1415  | 1537  | 1518  | 1431  | 515  | 4     | 1584 | 15569 |
| ELEKTRISCHE BRUTTO             | GWH     | 582   | 529   | 571   | 462   | 459   | 478   | 520   | 509   | 475   | 170  | 0     | 546  | 5302  |
| ELEKTRISCHE NETTO              | GWH     | 557   | 506   | 545   | 441   | 439   | 456   | 495   | 484   | 451   | 159  | -3    | 522  | 5051  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 850   | 850   | 851   | 848   | 798   | 793   | 749   | 686   | 674   | 603  | 555   | 372  | 872   |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 720   | 744   | 720   | 744   | 744   | 721   | 282  | 1     | 742  | 7577  |
| ZEIT AUSNUTZUNG                | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 37.9 | 0.1   | 99.7 | 86.5  |
| ARBEITSVERFUEGBARKEIT          | %       | 91.3  | 90.6  | 93.2  | 90.2  | 92.9  | 88.2  | 82.3  | 75.4  | 72.5  | 24.5 | 0.0   | 89.3 | 74.2  |
| ARBEITSHICHTVERFUEGBARKEIT     | %       | 8.7   | 9.4   | 6.8   | 9.8   | 7.1   | 11.8  | 17.7  | 24.6  | 27.5  | 75.5 | 100.0 | 10.7 | 25.8  |
| DAVON: GEPLANT                 | %       | 8.2   | 9.4   | 6.8   | 9.8   | 7.1   | 11.8  | 17.3  | 24.4  | 27.1  | 75.5 | 100.0 | 8.6  | 25.5  |
| NICHTGEPLANT                   | %       | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.4   | 0.2   | 0.4   | 0.0  | 0.0   | 2.1  | 0.3   |
| ARBEITSAUSNUTZUNG              | %       | 86.1  | 86.5  | 84.3  | 70.5  | 67.7  | 72.8  | 76.5  | 74.8  | 71.9  | 24.5 | -     | 80.6 | 66.3  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.3  | 33.4  | 33.2  | 32.4  | 32.0  | 32.2  | 32.2  | 31.9  | 31.5  | 30.8 | -     | 32.9 | 32.4  |

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3765 | MW |
| ERSTE KRITIKALITAET              | 15.01.1988 | BRUTTO-ENGPASSLEISTUNG     | 1390 | MW |
| ERSTE NETZSYNCHRONISATION        | 22.01.1988 | NETTO-ENGPASSLEISTUNG      | 1310 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 09.04.1988 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|------|------|------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |      |      |      |       |       |       |                              |
| THERMISCHE                              | GWH     |                              |      |      |      |      | 22682 | 23105 | 27542 | 73330                        |
| ELEKTRISCHE BRUTTO                      | GWH     |                              |      |      |      |      | 8146  | 8276  | 9866  | 26288                        |
| ELEKTRISCHE NETTO                       | GWH     |                              |      |      |      |      | 7473  | 7728  | 9271  | 24473                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN |                              |      |      |      |      | 6177  | 6876  | 7915  | 20968                        |
| VOLLASTBEWUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN |                              |      |      |      |      | 5815  | 5895  | 7078  | 18789                        |
| ARBEITSVERFUEGBARKEIT                   | %       |                              |      |      |      |      | 96    | 73    | 85    | 85                           |
| ARBEITSAUSNUTZUNG                       | %       |                              |      |      |      |      | 66    | 67    | 81    | 71                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG  | SEP   | OKT  | NOV  | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 975   | 879   | 972   | 943   | 974   | 942   | 830   | 518  | 0     | 848  | 887  | 974   | 9742  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |       |       |      |       |      |      |       |       |
| THERMISCHE                     | GWH     | 2786  | 2486  | 2748  | 2436  | 2490  | 2555  | 2520  | 1729 | 0     | 2457 | 2556 | 2779  | 27542 |
| ELEKTRISCHE BRUTTO             | GWH     | 1015  | 899   | 990   | 871   | 878   | 903   | 885   | 570  | 0     | 889  | 739  | 1026  | 9866  |
| ELEKTRISCHE NETTO              | GWH     | 959   | 849   | 934   | 818   | 824   | 853   | 831   | 518  | 0     | 834  | 785  | 969   | 9271  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1386  | 1305  | 1299  | 1300  | 1290  | 1278  | 1259  | 927  |       | 1315 | 1322 | 1324  | 1386  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 720   | 744   | 720   | 744   | 736  | 0     | 673  | 680  | 739   | 7915  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 98.9 | 0.0   | 90.5 | 91.4 | 99.3  | 90.4  |
| ARBEITSVERFUEGBARKEIT          | %       | 100.0 | 99.9  | 99.9  | 100.0 | 100.0 | 99.9  | 85.2  | 53.2 | 0.0   | 87.1 | 91.1 | 100.0 | 84.9  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.0   | 0.1   | 0.1   | 0.0   | 0.0   | 0.1   | 14.8  | 46.8 | 100.0 | 12.9 | 5.9  | 0.0   | 15.1  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.1   | 0.1   | 0.0   | 0.0   | 0.1   | 14.7  | 46.8 | 100.0 | 12.9 | 0.0  | 0.0   | 14.6  |
| NICHTGEPLANT                   | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.0  | 0.0   | 0.0  | 5.9  | 0.0   | 0.5   |
| ARBEITSAUSNUTZUNG              | %       | 98.4  | 96.4  | 95.9  | 86.7  | 84.5  | 90.4  | 85.2  | 53.1 | 0.0   | 85.6 | 93.8 | 99.4  | 80.8  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 34.4  | 34.2  | 34.0  | 33.6  | 33.1  | 33.4  | 33.0  | 30.0 | -     | 33.9 | 34.6 | 34.8  | 33.7  |

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 2575 | MW |
| ERSTE KRITIKALITAET              | 09.03.1979 | BRUTTO-ENGPASSLEISTUNG     | 900  | MW |
| ERSTE NETZSYNCHRONISATION        | 05.05.1979 | NETTO-ENGPASSLEISTUNG      | 864  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 26.03.1980 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 45716                        | 18868 | 18395 | 15557 | 19150 | 18397 | 18415 | 15532 | 170029                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 15788                        | 6584  | 6392  | 5444  | 6754  | 6466  | 6456  | 5435  | 57318                        |
| ELEKTRISCHE NETTO                       | GWH     | 14997                        | 6325  | 6120  | 5221  | 6488  | 6200  | 6159  | 5203  | 56712                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 19830                        | 7483  | 7562  | 6148  | 7581  | 7303  | 7432  | 6138  | 69477                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 17547                        | 7317  | 7087  | 6044  | 7507  | 7177  | 7131  | 6018  | 65828                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 45                           | 83    | 82    | 69    | 85    | 84    | 81    | 68    | 65                           |
| ARBEITSAUSNUTZUNG                       | %       | 43                           | 83    | 81    | 69    | 86    | 82    | 81    | 69    | 64                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN  | JUL   | AUG   | SEP  | OKT  | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|------|-------|-------|------|------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 643   | 571   | 640   | 619   | 603   | 136  | 0     | 0     | 57   | 633  | 620   | 641   | 5163  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |      |       |       |      |      |       |       |       |
| THERMISCHE                     | GWH     | 1916  | 1703  | 1908  | 1849  | 1847  | 421  | 0     | 0     | 239  | 1887 | 1850  | 1911  | 15532 |
| ELEKTRISCHE BRUTTO             | GWH     | 670   | 602   | 673   | 648   | 630   | 143  | 0     | 0     | 79   | 660  | 654   | 677   | 5435  |
| ELEKTRISCHE NETTO              | GWH     | 639   | 578   | 647   | 622   | 603   | 134  | 0     | 0     | 74   | 631  | 629   | 648   | 5203  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 878   | 879   | 879   | 875   | 854   | 879  |       |       | 858  | 876  | 880   | 880   | 880   |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 720   | 744   | 183  | 0     | 0     | 127  | 741  | 720   | 744   | 6138  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 25.4 | 0.0   | 0.0   | 17.6 | 99.6 | 100.0 | 100.0 | 70.1  |
| ARBEITSVERFUEGBARKEIT          | %       | 100.0 | 98.4  | 99.8  | 99.7  | 93.9  | 22.0 | 0.0   | 0.0   | 9.2  | 98.5 | 97.8  | 99.8  | 68.3  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.0   | 1.6   | 0.2   | 0.3   | 6.1   | 78.0 | 100.0 | 100.0 | 90.8 | 1.5  | 0.2   | 0.2   | 31.7  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.3   | 0.2   | 0.3   | 6.1   | 78.0 | 100.0 | 100.0 | 73.0 | 0.3  | 0.2   | 0.2   | 30.0  |
| NICHTGEPLANT                   | %       | 0.0   | 1.3   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 17.8 | 1.2  | 0.0   | 0.0   | 1.7   |
| ARBEITSAUSNUTZUNG              | %       | 99.5  | 99.5  | 100.7 | 99.9  | 93.8  | 21.5 | 0.0   | 0.0   | 11.8 | 98.1 | 101.1 | 100.8 | 68.7  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.4  | 33.9  | 33.9  | 33.6  | 32.6  | 31.7 | -     | -     | 30.8 | 33.4 | 34.0  | 33.9  | 33.5  |

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 3690 | MW |
| ERSTE KRITIKALITAET              | 14.09.1983 | BRUTTO-ENGPASSLEISTUNG     | 1316 | MW |
| ERSTE NETZSYNCHRONISATION        | 29.09.1983 | NETTO-ENGPASSLEISTUNG      | 1260 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 28.03.1984 |                            |      |    |

| JAERLICHE BETRIEBSERGEBNISSE            |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 2741                         | 28179 | 27028 | 27402 | 26658 | 26796 | 24012 | 25782 | 186598                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 1000                         | 10101 | 9711  | 9890  | 9572  | 9614  | 8629  | 9226  | 67743                        |
| ELEKTRISCHE NETTO                       | GWH     | 944                          | 9672  | 9302  | 9482  | 9180  | 9219  | 8235  | 8823  | 64857                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 1653                         | 8095  | 7551  | 7780  | 7822  | 8018  | 7247  | 7507  | 55673                        |
| VOLLASTBEHUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 761                          | 7677  | 7385  | 7525  | 7288  | 7317  | 6535  | 6999  | 51487                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 34                           | 87    | 86    | 87    | 88    | 90    | 79    | 85    | 84                           |
| ARBEITSAUSNUTZUNG                       | %       | 34                           | 87    | 84    | 86    | 83    | 83    | 75    | 80    | 81                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                  |         | JAN   | FEB   | MAR   | APR   | MAI  | JUN   | JUL  | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|----------------------------------|---------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT               | GWH     | 934   | 845   | 935   | 888   | 660  | 0     | 467  | 913   | 906   | 934   | 907   | 932   | 9321  |
| ENERGIEERZEUGUNG                 |         |       |       |       |       |      |       |      |       |       |       |       |       |       |
| THERMISCHE                       | GWH     | 2536  | 2377  | 2657  | 2467  | 1879 | 0     | 973  | 2549  | 2564  | 2664  | 2554  | 2564  | 25782 |
| ELEKTRISCHE BRUTTO               | GWH     | 917   | 860   | 960   | 881   | 647  | 0     | 330  | 893   | 918   | 961   | 929   | 931   | 9226  |
| ELEKTRISCHE NETTO                | GWH     | 880   | 824   | 919   | 842   | 613  | -6    | 308  | 855   | 881   | 923   | 892   | 894   | 8823  |
| ELEKTRISCHE NETTO HOECHSTLAST MW |         | 1293  | 1290  | 1284  | 1272  | 1203 |       | 1238 | 1261  | 1284  | 1290  | 1293  | 1296  | 1296  |
| BETRIEBSZEIT<br>DES GENERATORS   | STUNDEN | 744   | 672   | 743   | 720   | 600  | 0     | 355  | 744   | 721   | 744   | 720   | 744   | 7507  |
| ZEIT AUSNUTZUNG                  | %       | 100.0 | 100.0 | 100.0 | 100.0 | 80.6 | 0.0   | 47.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 85.7  |
| ARBEITSVERFUEGBARKEIT            | %       | 99.7  | 99.9  | 100.0 | 97.9  | 70.5 | 0.0   | 49.9 | 97.4  | 99.8  | 99.8  | 100.0 | 99.5  | 84.5  |
| ARBEITSNICHTVERFUEGBARKEIT       | %       | 0.3   | 0.1   | 0.0   | 2.1   | 29.5 | 100.0 | 50.1 | 2.6   | 0.2   | 0.2   | 0.0   | 0.5   | 15.5  |
| DAVON: GEPLANT                   | %       | 0.3   | 0.1   | 0.0   | 2.1   | 29.5 | 100.0 | 19.8 | 2.5   | 0.2   | 0.2   | 0.0   | 0.5   | 12.9  |
| NICHTGEPLANT                     | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 30.3 | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 2.6   |
| ARBEITSAUSNUTZUNG                | %       | 93.8  | 97.3  | 98.2  | 92.8  | 65.4 | -     | 32.8 | 91.2  | 97.0  | 98.4  | 98.3  | 95.4  | 79.9  |
| THERMISCHER NETTOWIRKUNGSGRAD    | %       | 34.7  | 34.7  | 34.6  | 34.1  | 32.6 | -     | 31.6 | 33.6  | 34.4  | 34.6  | 34.9  | 34.9  | 34.2  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 1050 | MW |
| ERSTE KRITIKALITAET              | 22.09.1968 | BRUTTO-ENGPASSLEISTUNG     | 357  | MW |
| ERSTE NETZSYNCHRONISATION        | 29.10.1968 | HETTO-ENGPASSLEISTUNG      | 340  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 30.03.1969 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE        |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | KUMULIERT<br>BIS<br>31.12.90 |
|--------------------------------------|---------|------------------------------|------|------|------|------|------|------|------|------------------------------|
| ENERGIEERZEUGUNG                     |         |                              |      |      |      |      |      |      |      |                              |
| THERMISCHE                           | GWH     | 110745                       | 7863 | 8008 | 8158 | 7649 | 8147 | 7974 | 3646 | 162190                       |
| ELEKTRISCHE BRUTTO                   | GWH     | 35952                        | 2609 | 2714 | 2798 | 2608 | 2755 | 2689 | 1236 | 53361                        |
| ELEKTRISCHE NETTO                    | GWH     | 34089                        | 2485 | 2593 | 2662 | 2481 | 2622 | 2558 | 1169 | 50659                        |
| BETRIEBSZEIT DES GENERATORS          |         |                              |      |      |      |      |      |      |      |                              |
|                                      | STUNDEN | 108562                       | 7798 | 7782 | 7869 | 7351 | 7800 | 7756 | 3475 | 156393                       |
| VOLLASTBENUTZUNG DER ENGPASSLEISTUNG |         |                              |      |      |      |      |      |      |      |                              |
|                                      | STUNDEN | 104104                       | 7563 | 7630 | 7831 | 7297 | 7712 | 7525 | 3434 | 153096                       |
| ARBEITSVERFUEGBARKEIT                | %       | 79                           | 87   | 87   | 89   | 83   | 88   | 86   | 39   | 79                           |
| ARBEITSAUSNUTZUNG                    | %       | 78                           | 86   | 87   | 89   | 83   | 88   | 86   | 39   | 79                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                               |         | JAN   | FEB   | MAR   | APR   | MAI  | JUN   | JUL   | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR |
|-------------------------------|---------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|------|
| VERFUEGBARE ARBEIT            | GWH     | 252   | 223   | 252   | 243   | 202  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1172 |
| ENERGIEERZEUGUNG              |         |       |       |       |       |      |       |       |       |       |       |       |       |      |
| THERMISCHE                    | GWH     | 784   | 695   | 783   | 756   | 628  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 3646 |
| ELEKTRISCHE BRUTTO            | GWH     | 266   | 236   | 266   | 256   | 212  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1236 |
| ELEKTRISCHE NETTO             | GWH     | 254   | 225   | 254   | 245   | 201  | -1    | -0    | -0    | -0    | -0    | -0    | -0    | 1169 |
| ELEKTRISCHE NETTO HOECHSTLAST | MW      | 344   | 343   | 344   | 343   | 342  |       |       |       |       |       |       |       | 344  |
| BETRIEBSZEIT DES GENERATORS   | STUNDEN | 744   | 672   | 743   | 720   | 596  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 3475 |
| ZEIT AUSNUTZUNG               | %       | 100.0 | 100.0 | 100.0 | 100.0 | 80.1 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 39.7 |
| ARBEITSVERFUEGBARKEIT         | %       | 99.9  | 97.9  | 99.9  | 99.5  | 79.9 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 39.4 |
| ARBEITSNICHTVERFUEGBARKEIT    | %       | 0.1   | 2.1   | 0.1   | 0.5   | 20.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 60.6 |
| DAVON: GEPLANT                | %       | 0.1   | 0.1   | 0.1   | 0.1   | 0.0  | 27.5  | 100.0 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 10.8 |
| NICHTGEPLANT                  | %       | 0.0   | 2.0   | 0.0   | 0.4   | 20.1 | 72.5  | 0.0   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 49.8 |
| ARBEITSAUSNUTZUNG             | %       | 100.5 | 98.4  | 100.4 | 100.0 | 79.4 | -     | -     | -     | -     | -     | -     | -     | 39.2 |
| THERMISCHER NETTOWIRKUNGSGRAD | %       | 32.5  | 32.3  | 32.4  | 32.4  | 32.0 | -     | -     | -     | -     | -     | -     | -     | 32.1 |

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 1900 | MW |
| ERSTE KRITIKALITAET              | 08.01.1972 | BRUTTO-ENGPASSLEISTUNG     | 672  | MW |
| ERSTE NETZSYNCHRONISATION        | 29.01.1972 | NETTO-ENGPASSLEISTUNG      | 640  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 19.05.1972 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| <b>ENERGIEERZEUGUNG</b>                 |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 167382                       | 14729 | 15246 | 14970 | 13292 | 13347 | 12551 | 12628 | 264144                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 57625                        | 5141  | 5114  | 5279  | 4663  | 4679  | 4402  | 4428  | 91331                        |
| ELEKTRISCHE NETTO                       | GWH     | 54791                        | 4890  | 4860  | 5020  | 4429  | 4445  | 4187  | 4209  | 86832                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 88652                        | 7841  | 7827  | 8060  | 7540  | 7423  | 6728  | 6902  | 140973                       |
| VOLLASTBEHUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 87016                        | 7765  | 7595  | 7840  | 6920  | 6948  | 6544  | 6579  | 137207                       |
| ARBEITSVERFUEGBARKEIT                   | X       | 84                           | 89    | 89    | 89    | 84    | 81    | 77    | 77    | 84                           |
| ARBEITSAUSNUTZUNG                       | X       | 83                           | 88    | 87    | 90    | 79    | 79    | 75    | 75    | 83                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                  |         | JAN   | FEB   | MAR  | APR   | MAI  | JUN   | JUL  | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|----------------------------------|---------|-------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT               | GWH     | 474   | 381   | 12   | 0     | 195  | 460   | 470  | 475   | 458   | 475   | 160   | 475   | 4335  |
| <b>ENERGIEERZEUGUNG</b>          |         |       |       |      |       |      |       |      |       |       |       |       |       |       |
| THERMISCHE                       | GWH     | 1381  | 1145  | 41   | 0     | 582  | 1354  | 1311 | 1373  | 1330  | 1397  | 1343  | 1370  | 12628 |
| ELEKTRISCHE BRUTTO               | GWH     | 488   | 402   | 13   | 0     | 202  | 476   | 451  | 473   | 465   | 494   | 476   | 487   | 4428  |
| ELEKTRISCHE NETTO                | GWH     | 465   | 381   | 12   | 0     | 192  | 452   | 428  | 449   | 442   | 470   | 454   | 463   | 4209  |
| ELEKTRISCHE NETTO HOECHSTLAST MW |         | 633   | 631   | 423  |       | 619  | 625   | 623  | 620   | 621   | 633   | 633   | 635   | 635   |
| BETRIEBSZEIT<br>DES GENERATORS   | STUNDEN | 744   | 672   | 32   | 0     | 324  | 720   | 737  | 744   | 721   | 744   | 720   | 744   | 6902  |
| ZEIT AUSNUTZUNG                  | X       | 100.0 | 100.0 | 4.3  | 0.0   | 43.5 | 100.0 | 99.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 78.8  |
| ARBEITSVERFUEGBARKEIT            | X       | 99.7  | 88.6  | 2.6  | 0.0   | 41.0 | 100.0 | 98.8 | 99.9  | 99.4  | 100.0 | 99.8  | 100.0 | 77.4  |
| ARBEITSNICHTVERFUEGBARKEIT       | X       | 0.3   | 11.4  | 97.4 | 100.0 | 59.0 | 0.0   | 1.2  | 0.1   | 0.6   | 0.0   | 0.2   | 0.0   | 22.6  |
| DAVON: GEPLANT                   | X       | 0.0   | 10.9  | 97.4 | 100.0 | 58.9 | 0.0   | 0.1  | 0.1   | 0.1   | 0.0   | 0.1   | 0.0   | 22.4  |
| NICHTGEPLANT                     | X       | 0.3   | 0.5   | 0.0  | 0.0   | 0.1  | 0.0   | 1.1  | 0.0   | 0.5   | 0.0   | 0.1   | 0.0   | 0.2   |
| ARBEITSAUSNUTZUNG                | X       | 97.7  | 88.6  | 2.6  | 0.0   | 40.2 | 98.1  | 89.9 | 94.4  | 95.8  | 98.8  | 93.4  | 97.3  | 75.1  |
| THERMISCHER NETTOWIRKUNGSGRAD    | X       | 33.7  | 33.3  | 30.2 | -     | 32.9 | 33.4  | 32.6 | 32.7  | 33.2  | 33.7  | 33.8  | 33.8  | 33.3  |

STATION : NECKARWESTHEIM 1 (GKN)

BR DEUTSCHLAND

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 2497 | MW |
| ERSTE KRITIKALITAET              | 26.05.1976 | BRUTTO-ENGPASSLEISTUNG     | 840  | MW |
| ERSTE NETZSYNCHRONISATION        | 01.07.1976 | NETTO-ENGPASSLEISTUNG      | 785  | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 01.12.1976 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 124026                       | 17869 | 19685 | 13037 | 16925 | 16798 | 13241 | 18537 | 240117                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 41220                        | 6248  | 6595  | 4429  | 5746  | 5622  | 4352  | 6192  | 80404                        |
| ELEKTRISCHE NETTO                       | GWH     | 38618                        | 5842  | 6162  | 4152  | 5395  | 5269  | 4019  | 5754  | 75212                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 51509                        | 7618  | 8050  | 5368  | 6828  | 6771  | 6395  | 7524  | 100063                       |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 48205                        | 7308  | 7753  | 5221  | 6789  | 6632  | 5055  | 7332  | 94295                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 73                           | 83    | 91    | 60    | 77    | 76    | 64    | 83    | 75                           |
| ARBEITSAUSNUTZUNG                       | %       | 73                           | 83    | 89    | 60    | 78    | 76    | 58    | 84    | 74                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG  | SEP  | OKT   | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 569   | 517   | 573   | 554   | 560   | 539   | 540   | 28   | 103  | 563   | 558   | 582   | 5686  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |       |       |      |      |       |       |       |       |
| THERMISCHE                     | GWH     | 1853  | 1676  | 1853  | 1766  | 1812  | 1792  | 1805  | 126  | 364  | 1848  | 1793  | 1851  | 18537 |
| ELEKTRISCHE BRUTTO             | GWH     | 621   | 561   | 623   | 592   | 598   | 589   | 593   | 40   | 120  | 616   | 608   | 631   | 6192  |
| ELEKTRISCHE NETTO              | GWH     | 577   | 524   | 582   | 551   | 553   | 545   | 548   | 36   | 110  | 570   | 568   | 590   | 5754  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 789   | 797   | 796   | 795   | 790   | 787   | 789   | 637  | 751  | 800   | 606   | 810   | 810   |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 720   | 744   | 720   | 744   | 60   | 169  | 744   | 720   | 744   | 7524  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 8.1  | 23.4 | 100.0 | 100.0 | 100.0 | 85.9  |
| ARBEITSVERFUEGBARKEIT          | %       | 97.6  | 98.0  | 98.4  | 98.1  | 96.0  | 95.5  | 92.6  | 4.9  | 18.2 | 96.5  | 92.9  | 97.8  | 82.8  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 2.4   | 2.0   | 1.6   | 1.9   | 4.0   | 4.5   | 7.4   | 95.1 | 81.8 | 3.5   | 1.1   | 0.2   | 17.2  |
| DAVON: GEPLANT                 | %       | 2.4   | 2.0   | 1.6   | 1.9   | 3.8   | 4.5   | 7.4   | 95.1 | 81.8 | 3.5   | 1.1   | 0.2   | 17.2  |
| NICHTGEPLANT                   | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.2   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   |
| ARBEITSAUSNUTZUNG              | %       | 98.8  | 99.3  | 99.9  | 97.4  | 94.7  | 96.5  | 93.9  | 6.1  | 19.5 | 97.6  | 100.4 | 101.0 | 83.7  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 31.1  | 31.3  | 31.4  | 31.2  | 30.5  | 30.4  | 30.4  | 28.5 | 30.3 | 30.8  | 31.7  | 31.8  | 31.0  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3765 | MW |
| ERSTE KRITIKALITAET              | 29.12.1988 | BRUTTO-ENGPASSLEISTUNG     | 1316 | MW |
| ERSTE NETZSYNCHRONISATION        | 02.01.1989 | NETTO-ENGPASSLEISTUNG      | 1225 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 15.04.1989 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|------|------|------|------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |      |      |      |      |       |       |                              |
| THERMISCHE                              | GWH     |                              |      |      |      |      |      | 27203 | 29428 | 56631                        |
| ELEKTRISCHE BRUTTO                      | GWH     |                              |      |      |      |      |      | 9506  | 10382 | 17888                        |
| ELEKTRISCHE NETTO                       | GWH     |                              |      |      |      |      |      | 8673  | 9694  | 18367                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN |                              |      |      |      |      |      | 8205  | 7958  | 16163                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN |                              |      |      |      |      |      | 7078  | 7910  | 14988                        |
| ARBEITSVERFUEGBARKEIT                   | %       |                              |      |      |      |      |      | 100   | 90    | 95                           |
| ARBEITSAUSNUTZUNG                       | %       |                              |      |      |      |      |      | 81    | 90    | 86                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN  | JUL  | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 911   | 819   | 909   | 882   | 900   | 192  | 578  | 899   | 881   | 910   | 881   | 710   | 9672  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |      |      |       |       |       |       |       |       |
| THERMISCHE                     | GWH     | 2723  | 2499  | 2774  | 2661  | 2710  | 598  | 1786 | 2745  | 2706  | 2755  | 2690  | 2781  | 29428 |
| ELEKTRISCHE BRUTTO             | GWH     | 974   | 885   | 985   | 941   | 951   | 208  | 617  | 953   | 951   | 970   | 954   | 792   | 10382 |
| ELEKTRISCHE NETTO              | GWH     | 909   | 826   | 920   | 879   | 887   | 193  | 577  | 888   | 889   | 905   | 895   | 927   | 9694  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1269  | 1265  | 1262  | 1256  | 1235  | 1153 | 1236 | 1234  | 1240  | 1245  | 1260  | 1255  | 1269  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 670   | 743   | 720   | 744   | 182  | 482  | 744   | 721   | 744   | 720   | 744   | 7958  |
| ZEIT AUSNUTZUNG                | %       | 100.0 | 99.7  | 100.0 | 100.0 | 100.0 | 25.3 | 64.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 90.8  |
| ARBEITSVERFUEGBARKEIT          | %       | 100.0 | 99.6  | 99.9  | 100.0 | 98.8  | 21.9 | 63.4 | 98.8  | 99.9  | 100.0 | 100.0 | 100.0 | 90.3  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.0   | 0.4   | 0.1   | 0.0   | 1.2   | 78.1 | 36.6 | 1.2   | 0.1   | 0.0   | 0.0   | 0.0   | 9.7   |
| DAVON: GEPLANT                 | %       | 0.0   | 0.0   | 0.1   | 0.0   | 1.2   | 78.1 | 34.8 | 0.5   | 0.1   | 0.0   | 0.0   | 0.0   | 9.5   |
| NICHTGEPLANT                   | %       | 0.0   | 0.4   | 0.0   | 0.0   | 0.0   | 0.0  | 1.8  | 0.7   | 0.0   | 0.0   | 0.0   | 0.0   | 0.2   |
| ARBEITSAUSNUTZUNG              | %       | 99.7  | 100.4 | 101.1 | 99.6  | 97.3  | 21.9 | 63.3 | 97.4  | 100.6 | 99.3  | 101.5 | 101.7 | 90.3  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.4  | 33.1  | 33.2  | 33.0  | 32.7  | 32.2 | 32.3 | 32.3  | 32.8  | 32.8  | 33.3  | 33.3  | 32.9  |



## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3517 | MW |
| ERSTE KRITIKALITAET              | 16.07.1974 | BRUTTO-ENGPASSLEISTUNG     | 1204 | MW |
| ERSTE NETZSYNCHRONISATION        | 25.08.1974 | NETTO-ENGPASSLEISTUNG      | 1146 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 26.02.1975 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 186290                       | 20943 | 22769 | 21084 | 22115 | 18265 | 19530 | 15357 | 326353                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 64862                        | 7307  | 8017  | 7492  | 7931  | 6408  | 6830  | 5376  | 114224                       |
| ELEKTRISCHE NETTO                       | GWH     | 60932                        | 6890  | 7558  | 6965  | 7465  | 5983  | 6411  | 5028  | 107232                       |
| BETRIEBSZEIT<br>DES GENERATORS          |         |                              |       |       |       |       |       |       |       |                              |
|   | STUNDEN | 58485                        | 6175  | 6797  | 7227  | 7154  | 6594  | 5904  | 4676  | 103012                       |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG |         |                              |       |       |       |       |       |       |       |                              |
|   | STUNDEN | 53862                        | 6070  | 6596  | 6079  | 6517  | 5218  | 5598  | 4389  | 94329                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 71                           | 69    | 75    | 77    | 81    | 73    | 67    | 53    | 71                           |
| ARBEITSAUSNUTZUNG                       | %       | 66                           | 69    | 75    | 69    | 74    | 59    | 64    | 50    | 66                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI  | JUN   | JUL   | AUG   | SEP   | OKT  | NOV  | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 852   | 769   | 851   | 825   | 493  | 0     | 0     | 0     | 0     | 146  | 540  | 849   | 5325  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |      |       |       |       |       |      |      |       |       |
| THERMISCHE                     | GWH     | 2593  | 2292  | 2413  | 2172  | 1395 | 0     | 0     | 0     | 0     | 472  | 1643 | 2376  | 15357 |
| ELEKTRISCHE BRUTTO             | GWH     | 918   | 809   | 843   | 754   | 477  | 0     | 0     | 0     | 0     | 156  | 581  | 839   | 5376  |
| ELEKTRISCHE NETTO              | GWH     | 864   | 767   | 796   | 709   | 447  | -2    | -2    | -3    | -14   | 132  | 547  | 792   | 5028  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1179  | 1187  | 1169  | 1169  | 1149 |       |       |       |       | 1207 | 1207 | 1186  | 1207  |
| BETRIEBSZEIT<br>DES GENERATORS |         |       |       |       |       |      |       |       |       |       |      |      |       |       |
|                                | STUNDEN | 744   | 672   | 743   | 720   | 431  | 0     | 0     | 0     | 0     | 144  | 478  | 744   | 4676  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 100.0 | 100.0 | 57.9 | 0.0   | 0.0   | 0.0   | 0.0   | 19.4 | 66.4 | 100.0 | 53.4  |
| ARBEITSVERFUEGBARKEIT          | %       | 100.0 | 100.0 | 100.0 | 100.0 | 57.9 | 0.0   | 0.0   | 0.0   | 0.0   | 17.1 | 65.4 | 99.6  | 53.0  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.0   | 0.0   | 0.0   | 0.0   | 42.1 | 100.0 | 100.0 | 100.0 | 100.0 | 82.9 | 34.6 | 0.4   | 47.0  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.0   | 0.0   | 0.0   | 42.1 | 100.0 | 100.0 | 83.9  | 0.0   | 1.9  | 0.7  | 0.4   | 27.7  |
| NICHTGEPLANT                   | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 16.1  | 100.0 | 81.0 | 33.9 | 0.0   | 19.3  |
| ARBEITSAUSNUTZUNG              | %       | 101.3 | 99.6  | 93.5  | 86.0  | 52.4 | -     | -     | -     | -     | 15.4 | 66.3 | 92.8  | 50.1  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.3  | 33.4  | 33.0  | 32.6  | 32.0 | -     | -     | -     | -     | 27.9 | 33.3 | 33.3  | 32.7  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3733 | MW |
| ERSTE KRITIKALITAET              | 25.03.1976 | BRUTTO-ENGPASSLEISTUNG     | 1300 | MW |
| ERSTE NETZSYNCHRONISATION        | 25.04.1976 | NETTO-ENGPASSLEISTUNG      | 1240 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 31.01.1977 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 155939                       | 25105 | 23663 | 20667 | 18117 | 17825 | 16137 | 28118 | 305571                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 53218                        | 8756  | 8280  | 7176  | 6112  | 6049  | 5523  | 9716  | 101830                       |
| ELEKTRISCHE NETTO                       | GWH     | 49685                        | 8276  | 7769  | 6711  | 5570  | 5587  | 5153  | 9100  | 97850                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 47428                        | 7338  | 6928  | 6370  | 7272  | 6587  | 4807  | 8631  | 95361                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 40933                        | 6737  | 6263  | 5414  | 4494  | 4506  | 4152  | 7341  | 77841                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 67                           | 78    | 74    | 68    | 76    | 75    | 54    | 90    | 70                           |
| ARBEITSAUSNUTZUNG                       | %       | 60                           | 77    | 72    | 62    | 51    | 51    | 47    | 84    | 62                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR  | APR   | MAI   | JUN   | JUL   | AUG   | SEP   | OKT  | NOV  | DEZ  | JAHR  |
|--------------------------------|---------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|------|------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 921   | 830   | 908  | 893   | 922   | 890   | 921   | 880   | 866   | 768  | 615  | 364  | 9778  |
| ENERGIEERZEUGUNG               |         |       |       |      |       |       |       |       |       |       |      |      |      |       |
| THERMISCHE                     | GWH     | 2730  | 2432  | 2656 | 2424  | 2477  | 2303  | 2441  | 2645  | 2469  | 2362 | 1741 | 1238 | 28118 |
| ELEKTRISCHE BRUTTO             | GWH     | 963   | 856   | 931  | 843   | 845   | 781   | 824   | 888   | 910   | 810  | 658  | 405  | 9716  |
| ELEKTRISCHE NETTO              | GWH     | 903   | 805   | 879  | 793   | 793   | 732   | 773   | 835   | 858   | 759  | 610  | 361  | 9100  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1261  | 1261  | 1258 | 1252  | 1233  | 1235  | 1230  | 1199  | 1227  | 1222 | 1066 | 660  | 1261  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 734  | 720   | 744   | 720   | 744   | 744   | 721   | 694  | 709  | 685  | 8631  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 98.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 93.3 | 98.5 | 92.1 | 98.5  |
| ARBEITSVERFUEGBARKEIT          | %       | 99.9  | 99.7  | 98.7 | 100.0 | 100.0 | 99.7  | 99.9  | 95.4  | 96.9  | 83.3 | 68.9 | 39.5 | 90.0  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.1   | 0.3   | 1.3  | 0.0   | 0.0   | 0.3   | 0.1   | 4.6   | 3.1   | 16.7 | 31.1 | 60.5 | 10.0  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.2   | 0.0  | 0.0   | 0.0   | 0.1   | 0.0   | 0.1   | 0.1   | 2.9  | 26.1 | 45.2 | 6.3   |
| NICHTGEPLANT                   | %       | 0.1   | 0.1   | 1.3  | 0.0   | 0.0   | 0.2   | 0.1   | 4.5   | 3.0   | 13.8 | 5.0  | 15.3 | 3.7   |
| ARBEITSAUSNUTZUNG              | %       | 97.9  | 96.6  | 95.4 | 88.8  | 86.0  | 81.9  | 83.8  | 90.5  | 96.0  | 82.2 | 68.3 | 39.2 | 83.8  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.1  | 33.1  | 33.1 | 32.7  | 32.0  | 31.8  | 31.7  | 31.6  | 34.8  | 32.1 | 31.4 | 29.2 | 32.4  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3733 | MW |
| ERSTE KRITIKALITAET              | 16.09.1978 | BRUTTO-ENGPASSLEISTUNG     | 1300 | MW |
| ERSTE NETZSYNCHRONISATION        | 01.10.1978 | NETTO-ENGPASSLEISTUNG      | 1230 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 06.09.1979 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     | 137039                       | 28614 | 29977 | 22096 | 26074 | 27299 | 27933 | 25394 | 324424                       |
| ELEKTRISCHE BRUTTO                      | GWH     | 47179                        | 10009 | 10474 | 7690  | 9163  | 9615  | 9763  | 8941  | 112833                       |
| ELEKTRISCHE NETTO                       | GWH     | 44494                        | 9483  | 9932  | 7282  | 8683  | 9108  | 9246  | 8485  | 106713                       |
| BETRIEBSZEIT<br>DES GENERATORS          |         |                              |       |       |       |       |       |       |       |                              |
|   | STUNDEN | 39511                        | 7908  | 8279  | 6642  | 7277  | 7627  | 7873  | 6921  | 92038                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG |         |                              |       |       |       |       |       |       |       |                              |
|   | STUNDEN | 36289                        | 7704  | 8077  | 5922  | 7061  | 7405  | 7516  | 6894  | 86867                        |
| ARBEITSVERFUEGBARKEIT                   | %       | 81                           | 88    | 95    | 67    | 81    | 85    | 88    | 79    | 82                           |
| ARBEITSAUSNUTZUNG                       | %       | 78                           | 88    | 92    | 68    | 81    | 84    | 86    | 79    | 80                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG   | SEP  | OKT   | NOV   | DEZ  | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 912   | 826   | 910   | 885   | 911   | 886   | 0     | 0     | 475  | 914   | 885   | 895  | 8499  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |       |       |       |      |       |       |      |       |
| THERMISCHE                     | GWH     | 2745  | 2477  | 2761  | 2656  | 2757  | 2547  | 0     | 0     | 1447 | 2667  | 2459  | 2678 | 25394 |
| ELEKTRISCHE BRUTTO             | GWH     | 966   | 872   | 972   | 933   | 959   | 883   | 0     | 0     | 511  | 946   | 747   | 754  | 8941  |
| ELEKTRISCHE NETTO              | GWH     | 916   | 828   | 922   | 885   | 911   | 837   | 0     | 0     | 484  | 897   | 899   | 905  | 8485  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1262  | 1259  | 1261  | 1260  | 1252  | 1240  |       |       | 1269 | 1274  | 1277  | 1278 | 1278  |
| BETRIEBSZEIT<br>DES GENERATORS |         |       |       |       |       |       |       |       |       |      |       |       |      |       |
|                                | STUNDEN | 744   | 672   | 743   | 720   | 744   | 702   | 0     | 0     | 402  | 744   | 720   | 730  | 6921  |
| ZEIT AUSNUTZUNG                | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 97.5  | 0.0   | 0.0   | 55.8 | 100.0 | 100.0 | 98.1 | 79.0  |
| ARBEITSVERFUEGBARKEIT          | %       | 99.7  | 99.9  | 99.6  | 99.9  | 99.6  | 100.0 | 0.0   | 0.0   | 53.5 | 100.0 | 97.9  | 97.9 | 78.9  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.3   | 0.1   | 0.4   | 0.1   | 0.4   | 0.0   | 100.0 | 100.0 | 46.5 | 0.0   | 0.1   | 2.1  | 21.1  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.1   | 0.0   | 0.1   | 0.1   | 0.0   | 100.0 | 9.7   | 2.2  | 0.0   | 0.0   | 0.0  | 9.5   |
| NICHTGEPLANT                   | %       | 0.3   | 0.0   | 0.4   | 0.0   | 0.3   | 0.0   | 0.0   | 90.3  | 44.3 | 0.0   | 0.1   | 2.1  | 11.6  |
| ARBEITSAUSNUTZUNG              | %       | 100.1 | 100.2 | 100.9 | 100.0 | 99.5  | 94.5  | 0.0   | 0.0   | 54.6 | 98.0  | 101.6 | 98.9 | 78.7  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 33.4  | 33.4  | 33.4  | 33.3  | 33.0  | 32.9  | -     | -     | 33.5 | 33.6  | 33.8  | 33.8 | 33.4  |

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3765 | MW |
| ERSTE KRITIKALITAET              | 09.12.1981 | BRUTTO-ENGPASSLEISTUNG     | 1300 | MW |
| ERSTE NETZSYNCHRONISATION        | 21.12.1981 | NETTO-ENGPASSLEISTUNG      | 1235 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 17.06.1982 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE        |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|--------------------------------------|---------|------------------------------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                     |         |                              |       |       |       |       |       |       |       |                              |
| THERMISCHE                           | GWH     | 60578                        | 29358 | 29937 | 26820 | 26053 | 27219 | 28992 | 24373 | 253331                       |
| ELEKTRISCHE BRUTTO                   | GWH     | 18622                        | 10155 | 10260 | 9204  | 8863  | 9323  | 9914  | 8353  | 84694                        |
| ELEKTRISCHE NETTO                    | GWH     | 17556                        | 9590  | 9740  | 8712  | 8359  | 8789  | 9402  | 7901  | 80050                        |
| BETRIEBSZEIT DES GENERATORS          |         |                              |       |       |       |       |       |       |       |                              |
|                                      | STUNDEN | 15273                        | 7890  | 8154  | 7179  | 7509  | 7604  | 7840  | 6743  | 63192                        |
| VOLLASTBEHUTZUNG DER ENGPASSLEISTUNG |         |                              |       |       |       |       |       |       |       |                              |
|                                      | STUNDEN | 14319                        | 7809  | 7893  | 7087  | 6771  | 7115  | 7612  | 6395  | 65001                        |
| ARBEITSVERFUEGBARKEIT                | %       | 81                           | 89    | 90    | 81    | 78    | 84    | 88    | 74    | 83                           |
| ARBEITSAUSNUTZUNG                    | %       | 81                           | 89    | 90    | 81    | 77    | 81    | 87    | 73    | 82                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                               |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN  | JUL   | AUG  | SEP   | OKT   | NOV   | DEZ  | JAHR  |
|-------------------------------|---------|-------|-------|-------|-------|-------|------|-------|------|-------|-------|-------|------|-------|
| VERFUEGBARE ARBEIT            | GWH     | 918   | 829   | 915   | 851   | 664   | 24   | 0     | 255  | 890   | 915   | 889   | 801  | 7951  |
| ENERGIEERZEUGUNG              |         |       |       |       |       |       |      |       |      |       |       |       |      |       |
| THERMISCHE                    | GWH     | 2793  | 2524  | 2782  | 2608  | 2132  | 87   | 1     | 803  | 2712  | 2770  | 2710  | 2451 | 24373 |
| ELEKTRISCHE BRUTTO            | GWH     | 967   | 870   | 956   | 896   | 711   | 28   | 0     | 265  | 927   | 949   | 936   | 848  | 8353  |
| ELEKTRISCHE NETTO             | GWH     | 919   | 827   | 908   | 850   | 664   | 19   | -8    | 245  | 882   | 902   | 890   | 803  | 7901  |
| ELEKTRISCHE NETTO HOECHSTLAST | MW      | 1248  | 1248  | 1244  | 1236  | 1104  | 731  |       | 1223 | 1241  | 1249  | 1251  | 1253 | 1253  |
| BETRIEBSZEIT DES GENERATORS   |         |       |       |       |       |       |      |       |      |       |       |       |      |       |
|                               | STUNDEN | 744   | 672   | 743   | 720   | 744   | 40   | 0     | 232  | 721   | 744   | 720   | 663  | 6743  |
| ZEITAUSNUTZUNG                | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 5.6  | 0.0   | 31.2 | 100.0 | 100.0 | 100.0 | 89.1 | 77.0  |
| ARBEITSVERFUEGBARKEIT         | %       | 99.9  | 100.0 | 99.7  | 95.8  | 72.3  | 2.8  | 0.0   | 27.8 | 100.0 | 99.6  | 100.0 | 87.2 | 73.6  |
| ARBEITSHICHTVERFUEGBARKEIT    | %       | 0.1   | 0.0   | 0.3   | 4.2   | 27.7  | 97.2 | 100.0 | 72.2 | 0.0   | 0.4   | 0.0   | 12.8 | 26.4  |
| DAVON: GEPLANT                | %       | 0.1   | 0.0   | 0.1   | 4.0   | 27.7  | 97.2 | 100.0 | 70.7 | 0.0   | 0.4   | 0.0   | 0.0  | 25.2  |
| NICHTGEPLANT                  | %       | 0.0   | 0.0   | 0.2   | 0.2   | 0.0   | 0.0  | 0.0   | 1.5  | 0.0   | 0.0   | 0.0   | 12.8 | 1.2   |
| ARBEITSAUSNUTZUNG             | %       | 100.0 | 99.6  | 99.0  | 95.6  | 72.3  | 2.1  | -     | 26.7 | 99.1  | 98.2  | 100.1 | 87.4 | 73.0  |
| THERMISCHER NETTOWIRKUNGSGRAD | %       | 32.9  | 32.8  | 32.6  | 32.6  | 31.2  | 21.4 | -     | 30.5 | 32.5  | 32.6  | 32.9  | 32.8 | 32.4  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |         |
|----------------------------------|------------|----------------------------|---------|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 3840 MW |
| ERSTE KRITIKALITAET              | 09.03.1984 | BRUTTO-ENGPASSLEISTUNG     | 1300 MW |
| ERSTE NETZSYNCHRONISATION        | 16.03.1984 | NETTO-ENGPASSLEISTUNG      | 1240 MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 19.07.1984 |                            |         |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990   | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|-------|-------|-------|-------|-------|-------|--------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |       |       |       |       |       |       |        |                              |
| THERMISCHE                              | GWH     | 19515                        | 28500 | 25871 | 26171 | 22569 | 30377 | 26676 | 179678 |                              |
| ELEKTRISCHE BRUTTO                      | GWH     | 6541                         | 9652  | 8768  | 8860  | 7493  | 10198 | 8929  | 65441  |                              |
| ELEKTRISCHE NETTO                       | GWH     | 6132                         | 9141  | 8299  | 8410  | 7072  | 9654  | 8435  | 57143  |                              |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN | 5744                         | 7852  | 7434  | 7876  | 7706  | 8743  | 7717  | 53072  |                              |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN | 4990                         | 7350  | 6675  | 6780  | 5701  | 7788  | 6807  | 46090  |                              |
| ARBEITSVERFUEGBARKEIT                   | %       | 72                           | 84    | 83    | 84    | 84    | 98    | 84    | 84     |                              |
| ARBEITSAUSNUTZUNG                       | %       | 72                           | 84    | 76    | 77    | 65    | 89    | 78    | 77     |                              |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                  |         | JAN   | FEB  | MAR   | APR   | MAI   | JUN   | JUL   | AUG   | SEP   | OKT  | NOV   | DEZ   | JAHR  |
|----------------------------------|---------|-------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| VERFUEGBARE ARBEIT               | GWH     | 758   | 320  | 0     | 826   | 918   | 889   | 886   | 918   | 892   | 876  | 875   | 921   | 9079  |
| ENERGIEERZEUGUNG                 |         |       |      |       |       |       |       |       |       |       |      |       |       |       |
| THERMISCHE                       | GWH     | 2384  | 1029 | 2     | 2363  | 2402  | 2508  | 2570  | 2646  | 2629  | 2635 | 2685  | 2823  | 26676 |
| ELEKTRISCHE BRUTTO               | GWH     | 787   | 335  | 0     | 795   | 798   | 836   | 855   | 876   | 883   | 879  | 917   | 969   | 8929  |
| ELEKTRISCHE NETTO                | GWH     | 740   | 308  | -6    | 754   | 754   | 790   | 809   | 829   | 837   | 831  | 869   | 920   | 8435  |
| ELEKTRISCHE NETTO HOECHSTLAST MW |         | 1187  | 967  | 188   | 1248  | 1234  | 1230  | 1230  | 1237  | 1234  | 1241 | 1252  | 1257  | 1257  |
| BETRIEBSZEIT<br>DES GENERATORS   | STUNDEN | 744   | 375  | 1     | 720   | 744   | 720   | 744   | 744   | 721   | 740  | 720   | 744   | 7717  |
| ZEIT AUSNUTZUNG                  | %       | 100.0 | 55.8 | 0.1   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.5 | 100.0 | 100.0 | 88.1  |
| ARBEITSVERFUEGBARKEIT            | %       | 82.1  | 38.5 | 0.0   | 92.6  | 99.6  | 99.6  | 96.0  | 99.5  | 99.8  | 95.0 | 98.1  | 99.9  | 83.6  |
| ARBEITSNICHTVERFUEGBARKEIT       | %       | 17.9  | 61.5 | 100.0 | 7.4   | 0.4   | 0.4   | 4.0   | 0.5   | 0.2   | 5.0  | 1.9   | 0.1   | 16.4  |
| DAVON: GEPLANT                   | %       | 17.3  | 59.4 | 100.0 | 7.4   | 0.1   | 0.4   | 3.9   | 0.2   | 0.2   | 4.5  | 0.1   | 0.1   | 15.9  |
| NICHTGEPLANT                     | %       | 0.6   | 2.1  | 0.0   | 0.0   | 0.3   | 0.0   | 0.1   | 0.3   | 0.0   | 0.5  | 1.8   | 0.0   | 0.5   |
| ARBEITSAUSNUTZUNG                | %       | 80.2  | 37.0 | -     | 84.5  | 81.8  | 88.5  | 87.6  | 89.8  | 93.6  | 90.1 | 97.4  | 99.7  | 77.7  |
| THERMISCHER NETTOWIRKUNGSGRAD    | %       | 31.0  | 30.0 | -     | 31.9  | 31.4  | 31.5  | 31.5  | 31.3  | 31.8  | 31.5 | 32.4  | 32.6  | 31.6  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | BWR        | THERMISCHE REAKTORLEISTUNG | 3840 | MW |
| ERSTE KRITIKALITAET              | 26.10.1984 | BRUTTO-ENGAPASLEISTUNG     | 1308 | MW |
| ERSTE NETZSYNCHRONISATION        | 02.11.1984 | NETTO-EHGPASLEISTUNG       | 1248 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 18.01.1985 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     |                              | 4049 | 28242 | 25139 | 22982 | 23269 | 24566 | 25885 | 154133                       |
| ELEKTRISCHE BRUTTO                      | GWH     |                              | 1386 | 9607  | 8444  | 7755  | 7854  | 8274  | 8673  | 51994                        |
| ELEKTRISCHE NETTO                       | GWH     |                              | 1309 | 9150  | 8012  | 7325  | 7456  | 7881  | 8260  | 49392                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN |                              | 1258 | 7663  | 7945  | 7345  | 7887  | 7722  | 7519  | 47339                        |
| VOLLASTBENUTZUNG<br>DER ENGAPASLEISTUNG | STUNDEN |                              | 1058 | 7358  | 6439  | 5869  | 5973  | 6316  | 6623  | 37636                        |
| ARBEITSVERFUEGBARKEIT                   | %       |                              | 78   | 89    | 85    | 75    | 88    | 84    | 80    | 83                           |
| ARBEITSAUSNUTZUNG                       | %       |                              | 75   | 84    | 74    | 67    | 68    | 72    | 76    | 73                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN  | JUL  | AUG  | SEP   | OKT  | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|------|------|------|-------|------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 923   | 812   | 913   | 883   | 901   | 800  | 617  | 347  | 0     | 754  | 896   | 922   | 8768  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |      |      |      |       |      |       |       |       |
| THERMISCHE                     | GWH     | 2783  | 2432  | 2741  | 2417  | 2438  | 2422 | 1909 | 1171 | 0     | 2296 | 2493  | 2584  | 25885 |
| ELEKTRISCHE BRUTTO             | GWH     | 952   | 826   | 928   | 814   | 809   | 788  | 625  | 364  | 0     | 767  | 918   | 882   | 8673  |
| ELEKTRISCHE NETTO              | GWH     | 911   | 789   | 885   | 774   | 770   | 751  | 591  | 341  | -4    | 730  | 878   | 844   | 8260  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1268  | 1260  | 1255  | 1250  | 1235  | 1221 | 1082 | 914  |       | 1249 | 1265  | 1270  | 1270  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 720   | 744   | 719  | 624  | 400  | 0     | 689  | 720   | 744   | 7519  |
| ZEIT AUSNUTZUNG                | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.9 | 83.9 | 53.8 | 0.0   | 92.6 | 100.0 | 100.0 | 85.8  |
| ARBEITSVERFUEGBARKEIT          | %       | 99.4  | 96.9  | 98.6  | 98.3  | 97.1  | 89.0 | 66.5 | 37.4 | 0.0   | 81.2 | 99.8  | 99.3  | 80.2  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.6   | 3.1   | 1.4   | 1.7   | 2.9   | 11.0 | 33.5 | 62.6 | 100.0 | 18.8 | 0.2   | 0.7   | 19.8  |
| DAVON: GEPLANT                 | %       | 0.4   | 2.8   | 0.7   | 0.3   | 1.8   | 10.7 | 20.6 | 62.2 | 100.0 | 16.7 | 0.2   | 0.7   | 18.1  |
| NICHTGEPLANT                   | %       | 0.2   | 0.3   | 0.7   | 1.4   | 1.1   | 0.3  | 12.9 | 0.4  | 0.0   | 2.1  | 0.0   | 0.0   | 1.7   |
| ARBEITSAUSNUTZUNG              | %       | 98.1  | 94.1  | 95.4  | 86.1  | 83.0  | 83.5 | 63.6 | 36.8 | -     | 78.7 | 97.7  | 90.9  | 75.6  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 32.7  | 32.5  | 32.3  | 32.0  | 31.6  | 31.0 | 30.9 | 29.2 | -     | 31.8 | 32.6  | 32.7  | 31.9  |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3850 | MW |
| ERSTE KRITIKALITAET              | 01.09.1984 | BRUTTO-ENGPASSLEISTUNG     | 1395 | MW |
| ERSTE NETZSYNCHRONISATION        | 04.09.1984 | NETTO-ENGPASSLEISTUNG      | 1325 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 01.02.1985 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     |                              | 3740 | 30259 | 29475 | 27778 | 29447 | 29869 | 29647 | 180216                       |
| ELEKTRISCHE BRUTTO                      | GWH     |                              | 1302 | 11477 | 10794 | 10217 | 10804 | 10867 | 10694 | 65155                        |
| ELEKTRISCHE NETTO                       | GWH     |                              | 1214 | 10871 | 10208 | 9650  | 10208 | 10279 | 10124 | 62554                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN |                              | 1424 | 8406  | 8120  | 7979  | 8104  | 8058  | 7872  | 49963                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN |                              | 954  | 8366  | 7910  | 7420  | 7853  | 7910  | 7700  | 48113                        |
| ARBEITSVERFUEGBARKEIT                   | %       |                              | 34   | 96    | 90    | 84    | 91    | 90    | 88    | 87                           |
| ARBEITSAUSNUTZUNG                       | %       |                              | 33   | 96    | 90    | 85    | 89    | 90    | 88    | 87                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR  | MAI  | JUN   | JUL   | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 966   | 873   | 945   | 565  | 98   | 944   | 960   | 956   | 941   | 972   | 945   | 979   | 10144 |
| ENERGIEERZEUGUNG               |         |       |       |       |      |      |       |       |       |       |       |       |       |       |
| THERMISCHE                     | GWH     | 2795  | 2542  | 2723  | 1636 | 294  | 2765  | 2829  | 2818  | 2769  | 2860  | 2763  | 2852  | 29647 |
| ELEKTRISCHE BRUTTO             | GWH     | 1030  | 936   | 1003  | 599  | 107  | 975   | 990   | 975   | 995   | 1026  | 1011  | 1047  | 10694 |
| ELEKTRISCHE NETTO              | GWH     | 977   | 889   | 953   | 564  | 101  | 921   | 935   | 920   | 942   | 971   | 959   | 992   | 10124 |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1328  | 1351  | 1329  | 1209 | 1340 | 1342  | 1341  | 1323  | 1345  | 1345  | 1355  | 1357  | 1357  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 488  | 88   | 720   | 744   | 744   | 721   | 744   | 720   | 744   | 7872  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 100.0 | 67.8 | 11.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 89.9  |
| ARBEITSVERFUEGBARKEIT          | %       | 100.0 | 100.0 | 97.9  | 60.4 | 10.2 | 99.0  | 97.5  | 97.0  | 98.6  | 98.6  | 99.1  | 99.3  | 88.1  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 0.0   | 0.0   | 2.1   | 39.6 | 89.8 | 1.0   | 2.5   | 3.0   | 1.4   | 1.4   | 0.9   | 0.7   | 11.9  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.0   | 2.1   | 39.6 | 89.8 | 1.0   | 2.5   | 3.0   | 1.2   | 1.4   | 0.9   | 0.7   | 11.9  |
| NICHTGEPLANT                   | %       | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   |
| ARBEITSAUSNUTZUNG              | %       | 101.0 | 101.8 | 98.6  | 60.2 | 10.4 | 96.6  | 94.9  | 93.3  | 98.6  | 98.5  | 100.5 | 100.6 | 87.9  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 34.9  | 35.0  | 35.0  | 34.5 | 34.2 | 33.3  | 33.1  | 32.6  | 34.0  | 34.0  | 34.7  | 34.8  | 34.1  |

STATION : PHILIPPSBURG 2 (KKP)

BR DEUTSCHLAND

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3765 | MW |
| ERSTE KRITIKALITAET              | 13.12.1984 | BRUTTO-ENGPASSLEISTUNG     | 1349 | MW |
| ERSTE NETZSYNCHRONISATION        | 17.12.1984 | NETTO-ENGPASSLEISTUNG      | 1268 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 18.04.1985 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE           |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|-------|-------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |       |       |       |       |       |       |                              |
| THERMISCHE                              | GWH     |                              | 212  | 27682 | 29656 | 27626 | 28280 | 28263 | 24956 | 164676                       |
| ELEKTRISCHE BRUTTO                      | GWH     |                              | 33   | 9877  | 10749 | 10083 | 10214 | 10190 | 8970  | 60116                        |
| ELEKTRISCHE NETTO                       | GWH     |                              | 26   | 9360  | 10234 | 9616  | 9711  | 9677  | 8516  | 57140                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN |                              | 110  | 7895  | 7957  | 7445  | 8181  | 7575  | 6628  | 45791                        |
| VOLLASTBEWUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN |                              | 82   | 7385  | 8068  | 7586  | 7660  | 7630  | 6719  | 45129                        |
| ARBEITSVERFUEGBARKEIT                   | %       |                              | 24   | 95    | 91    | 85    | 92    | 86    | 76    | 87                           |
| ARBEITSAUSNUTZUNG                       | %       |                              | 24   | 84    | 92    | 87    | 87    | 87    | 77    | 85                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN  | FEB   | MAR   | APR  | MAI   | JUN   | JUL   | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|--------------------------------|---------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 775  | 0     | 0     | 155  | 941   | 912   | 942   | 943   | 913   | 942   | 912   | 943   | 8378  |
| ENERGIEERZEUGUNG               |         |      |       |       |      |       |       |       |       |       |       |       |       |       |
| THERMISCHE                     | GWH     | 2393 | 0     | 0     | 475  | 2784  | 2703  | 2791  | 2800  | 2707  | 2797  | 2709  | 2796  | 24956 |
| ELEKTRISCHE BRUTTO             | GWH     | 823  | 0     | 0     | 173  | 1007  | 976   | 1002  | 998   | 978   | 1009  | 986   | 1017  | 8970  |
| ELEKTRISCHE NETTO              | GWH     | 770  | 0     | 0     | 154  | 961   | 932   | 954   | 946   | 930   | 959   | 942   | 968   | 8516  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1295 |       |       | 1306 | 1306  | 1304  | 1300  | 1279  | 1303  | 1307  | 1311  | 1309  | 1311  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 620  | 0     | 0     | 127  | 744   | 720   | 744   | 744   | 721   | 744   | 720   | 744   | 6628  |
| ZEIT AUSNUTZUNG                | %       | 83.3 | 0.0   | 0.0   | 17.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 75.7  |
| ARBEITSVERFUEGBARKEIT          | %       | 82.2 | 0.0   | 0.0   | 17.1 | 99.8  | 99.9  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 75.5  |
| ARBEITSNICHTVRFUEGBARKEIT      | %       | 17.8 | 100.0 | 100.0 | 82.9 | 0.2   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 24.5  |
| DAVON: GEPLANT                 | %       | 0.0  | 73.8  | 100.0 | 82.9 | 0.0   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 21.0  |
| NICHTGEPLANT                   | %       | 17.8 | 26.2  | 0.0   | 0.0  | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 3.5   |
| ARBEITSAUSNUTZUNG              | %       | 81.7 | 0.0   | 0.0   | 16.9 | 101.9 | 102.1 | 101.1 | 100.3 | 101.8 | 101.6 | 103.2 | 102.6 | 76.7  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 32.2 | -     | -     | 32.5 | 34.5  | 34.5  | 34.2  | 33.8  | 34.4  | 34.3  | 34.8  | 34.6  | 34.1  |



ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3760 | MW |
| ERSTE KRITIKALITAET              | 01.03.1986 | BRUTTO-ENGPASSLEISTUNG     | 1302 | MW |
| ERSTE NETZSYNCHRONISATION        | 14.03.1986 | NETTO-ENGPASSLEISTUNG      | 1219 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 01.10.1987 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE        |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988  | 1989 | 1990 | KUMULIERT<br>BIS<br>31.12.90 |
|--------------------------------------|---------|------------------------------|------|------|------|------|-------|------|------|------------------------------|
| ENERGIEERZEUGUNG                     |         |                              |      |      |      |      |       |      |      |                              |
| THERMISCHE                           | GWH     |                              |      |      | 4613 | 9104 | 19051 | 0    | 0    | 32768                        |
| ELEKTRISCHE BRUTTO                   | GWH     |                              |      |      | 1582 | 3168 | 6519  | 0    | 0    | 11269                        |
| ELEKTRISCHE NETTO                    | GWH     |                              |      |      | 1331 | 2823 | 6014  | 0    | 0    | 10167                        |
| BETRIEBSZEIT DES GENERATORS          |         |                              |      |      |      |      |       |      |      |                              |
|                                      | STUNDEN |                              |      |      | 0    | 2000 | 5884  | 0    | 0    | 7884                         |
| VOLLASTBENUTZUNG DER ENGPASSLEISTUNG |         |                              |      |      |      |      |       |      |      |                              |
|                                      | STUNDEN |                              |      |      | 1142 | 2427 | 4937  | 0    | 0    | 8505                         |
| ARBEITSVERFUEGBARKEIT                | %       |                              |      |      | 17   | 30   | 66    | 0    | 0    | 23                           |
| ARBEITSAUSNUTZUNG                    | %       |                              |      |      | 16   | 28   | 56    | -    | -    | 20                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                                  |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|----------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT               | GWH     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ENERGIEERZEUGUNG                 |         |       |       |       |       |       |       |       |       |       |       |       |       |       |
| THERMISCHE                       | GWH     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELEKTRISCHE BRUTTO               | GWH     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELEKTRISCHE NETTO                | GWH     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELEKTRISCHE NETTO HOECHSTLAST MW |         |       |       |       |       |       |       |       |       |       |       |       |       |       |
| BETRIEBSZEIT DES GENERATORS      | STUNDEN | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ZEIT AUSNUTZUNG                  | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ARBEITSVERFUEGBARKEIT            | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ARBEITSNICHTVERFUEGBARKEIT       | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| DAVON: GEPLANT                   | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| NICHTGEPLANT                     | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ARBEITSAUSNUTZUNG                | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| THERMISCHER NETTOWIRKUNGSGRAD    | %       | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |

## ALLGEMEINE ANGABEN

## HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3782 | MW |
| ERSTE KRITIKALITAET              | 08.10.1986 | BRUTTO-ENGPASSLEISTUNG     | 1383 | MW |
| ERSTE NETZSYNCHRONISATION        | 14.10.1986 | NETTO-ENGPASSLEISTUNG      | 1326 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 22.12.1986 |                            |      |    |

| JAERLICHE BETRIEBSERGEBNISSE            |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987  | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|---|---------|------------------------------|------|------|------|-------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                        |         |                              |      |      |      |       |       |       |       |                              |
| THERMISCHE                              | GWH     |                              |      |      | 4489 | 26784 | 24332 | 25491 | 23614 | 101709                       |
| ELEKTRISCHE BRUTTO                      | GWH     |                              |      |      | 1688 | 9975  | 9034  | 9455  | 8761  | 30913                        |
| ELEKTRISCHE NETTO                       | GWH     |                              |      |      | 1607 | 9481  | 8582  | 8991  | 8337  | 36999                        |
| BETRIEBSZEIT<br>DES GENERATORS          | STUNDEN |                              |      |      | 1203 | 7477  | 7014  | 7134  | 6447  | 29275                        |
| VOLLASTBENUTZUNG<br>DER ENGPASSLEISTUNG | STUNDEN |                              |      |      | 1230 | 7253  | 6474  | 6780  | 6290  | 28027                        |
| ARBEITSVERFUEGBARKEIT                   | %       |                              |      |      | 100  | 85    | 85    | 81    | 73    | 82                           |
| ARBEITSAUSNUTZUNG                       | %       |                              |      |      | 66   | 83    | 74    | 77    | 72    | 76                           |

## MONATLICHE BETRIEBSERGEBNISSE 1990

|                                |         | JAN   | FEB   | MAR   | APR   | MAI   | JUN   | JUL   | AUG  | SEP   | OKT   | NOV  | DEZ   | JAHR  |
|--------------------------------|---------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|
| VERFUEGBARE ARBEIT             | GWH     | 976   | 883   | 975   | 950   | 978   | 938   | 944   | 147  | 0     | 0     | 641  | 985   | 8417  |
| ENERGIEERZEUGUNG               |         |       |       |       |       |       |       |       |      |       |       |      |       |       |
| THERMISCHE                     | GWH     | 2715  | 2458  | 2735  | 2632  | 2724  | 2655  | 2696  | 430  | 0     | 0     | 1211 | 2757  | 23614 |
| ELEKTRISCHE BRUTTO             | GWH     | 1011  | 915   | 1019  | 979   | 1005  | 979   | 991   | 156  | 0     | 0     | 674  | 1031  | 8761  |
| ELEKTRISCHE NETTO              | GWH     | 962   | 871   | 970   | 932   | 956   | 932   | 942   | 147  | 0     | 0     | 642  | 982   | 8337  |
| ELEKTRISCHE NETTO HOECHSTLAST  | MW      | 1330  | 1329  | 1333  | 1336  | 1327  | 1313  | 1311  | 1211 |       |       | 1346 | 1347  | 1347  |
| BETRIEBSZEIT<br>DES GENERATORS | STUNDEN | 744   | 672   | 743   | 720   | 744   | 720   | 744   | 127  | 0     | 0     | 489  | 744   | 6447  |
| ZEITAUSNUTZUNG                 | %       | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 17.1 | 0.0   | 0.0   | 67.9 | 100.0 | 73.6  |
| ARBEITSVERFUEGBARKEIT          | %       | 99.0  | 99.1  | 99.0  | 99.5  | 99.2  | 98.3  | 95.7  | 14.9 | 0.0   | 0.0   | 67.2 | 99.9  | 72.5  |
| ARBEITSNICHTVERFUEGBARKEIT     | %       | 1.0   | 0.9   | 1.0   | 0.5   | 0.8   | 1.7   | 4.3   | 85.1 | 100.0 | 100.0 | 32.8 | 0.1   | 27.5  |
| DAVON: GEPLANT                 | %       | 0.0   | 0.0   | 0.1   | 0.0   | 0.0   | 0.0   | 3.1   | 85.1 | 100.0 | 0.0   | 2.5  | 0.0   | 15.9  |
| NICHTGEPLANT                   | %       | 1.0   | 0.9   | 0.9   | 0.5   | 0.8   | 1.7   | 1.2   | 0.0  | 0.0   | 100.0 | 30.3 | 0.1   | 11.6  |
| ARBEITSAUSNUTZUNG              | %       | 97.5  | 97.8  | 98.5  | 97.6  | 97.0  | 97.6  | 95.5  | 14.9 | 0.0   | 0.0   | 67.2 | 99.5  | 71.8  |
| THERMISCHER NETTOWIRKUNGSGRAD  | %       | 35.4  | 35.4  | 35.5  | 35.4  | 35.1  | 35.1  | 35.0  | 34.3 | -     | -     | 35.4 | 35.6  | 35.3  |

ALLGEMEINE ANGABEN

HAUPTKENNMERKMALE

|                                  |            |                            |      |    |
|----------------------------------|------------|----------------------------|------|----|
| REAKTORTYP                       | PWR        | THERMISCHE REAKTORLEISTUNG | 3765 | MW |
| ERSTE KRITIKALITAET              | 14.04.1988 | BRUTTO-ENGPASSLEISTUNG     | 1341 | MW |
| ERSTE NETZSYNCHRONISATION        | 19.04.1988 | NETTO-ENGPASSLEISTUNG      | 1270 | MW |
| BEGINN DER KOMMERZIELLEN NUTZUNG | 20.06.1988 |                            |      |    |

| JAEHRLICHE BETRIEBSERGEBNISSE        |         | KUMULIERT<br>BIS<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988  | 1989  | 1990  | KUMULIERT<br>BIS<br>31.12.90 |
|--------------------------------------|---------|------------------------------|------|------|------|------|-------|-------|-------|------------------------------|
| ENERGIEERZEUGUNG                     |         |                              |      |      |      |      |       |       |       |                              |
| THERMISCHE                           | GWH     |                              |      |      |      |      | 21130 | 29228 | 29828 | 80186                        |
| ELEKTRISCHE BRUTTO                   | GWH     |                              |      |      |      |      | 7434  | 10409 | 10610 | 20452                        |
| ELEKTRISCHE NETTO                    | GWH     |                              |      |      |      |      | 6635  | 9857  | 10039 | 26531                        |
| BETRIEBSZEIT DES GENERATORS          |         |                              |      |      |      |      |       |       |       |                              |
|                                      | STUNDEN |                              |      |      |      |      | 4516  | 7794  | 7956  | 20266                        |
| VOLLASTBENUTZUNG DER ENGPASSLEISTUNG |         |                              |      |      |      |      |       |       |       |                              |
|                                      | STUNDEN |                              |      |      |      |      | 5344  | 7937  | 7989  | 21270                        |
| ARBEITSVERFUEGBARKEIT                | %       |                              |      |      |      |      | 98    | 89    | 90    | 92                           |
| ARBEITSAUSNUTZUNG                    | %       |                              |      |      |      |      | 84    | 91    | 91    | 89                           |

MONATLICHE BETRIEBSERGEBNISSE 1990

|                               |         | JAN   | FEB   | MAR   | APR   | MAI  | JUN  | JUL   | AUG   | SEP   | OKT   | NOV   | DEZ   | JAHR  |
|-------------------------------|---------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| VERFUEGBARE ARBEIT            | GWH     | 924   | 834   | 922   | 892   | 460  | 313  | 939   | 944   | 915   | 944   | 914   | 944   | 9945  |
| ENERGIEERZEUGUNG              |         |       |       |       |       |      |      |       |       |       |       |       |       |       |
| THERMISCHE                    | GWH     | 2801  | 2531  | 2810  | 2699  | 1384 | 940  | 2796  | 2808  | 2721  | 2809  | 2720  | 2308  | 29828 |
| ELEKTRISCHE BRUTTO            | GWH     | 1003  | 904   | 1004  | 966   | 488  | 329  | 986   | 988   | 967   | 997   | 973   | 1006  | 10610 |
| ELEKTRISCHE NETTO             | GWH     | 950   | 856   | 951   | 914   | 460  | 310  | 933   | 934   | 914   | 943   | 921   | 953   | 10039 |
| ELEKTRISCHE NETTO HOECHSTLAST | MW      | 1287  | 1290  | 1291  | 1294  | 1220 | 1276 | 1277  | 1277  | 1280  | 1284  | 1287  | 1288  | 1294  |
| BETRIEBSZEIT DES GENERATORS   |         |       |       |       |       |      |      |       |       |       |       |       |       |       |
|                               | STUNDEN | 744   | 672   | 743   | 720   | 401  | 259  | 744   | 744   | 721   | 744   | 720   | 744   | 7956  |
| ZEIT AUSNUTZUNG               | %       | 100.0 | 100.0 | 100.0 | 100.0 | 53.9 | 36.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 90.8  |
| ARBEITSVERFUEGBARKEIT         | %       | 100.0 | 100.0 | 100.0 | 99.8  | 49.9 | 34.7 | 99.4  | 99.9  | 99.9  | 100.0 | 100.0 | 100.0 | 90.4  |
| ARBEITSNICHTVERFUEGBARKEIT    | %       | 0.0   | 0.0   | 0.0   | 0.2   | 50.1 | 65.3 | 0.6   | 0.1   | 0.1   | 0.0   | 0.0   | 0.0   | 9.6   |
| DAVON: GEPLANT                | %       | 0.0   | 0.0   | 0.0   | 0.2   | 49.7 | 64.8 | 0.0   | 0.1   | 0.1   | 0.0   | 0.0   | 0.0   | 9.5   |
| NICHTGEPLANT                  | %       | 0.0   | 0.0   | 0.0   | 0.0   | 0.4  | 0.5  | 0.6   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   |
| ARBEITSAUSNUTZUNG             | %       | 102.8 | 102.6 | 103.1 | 102.2 | 49.7 | 34.4 | 98.7  | 98.9  | 99.9  | 99.8  | 100.7 | 100.8 | 91.2  |
| THERMISCHER NETTOWIRKUNGSGRAD | %       | 33.9  | 33.8  | 33.9  | 33.9  | 33.2 | 33.0 | 33.3  | 33.3  | 33.6  | 33.6  | 33.8  | 33.9  | 33.7  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |     |    |
|-------------------------------------|------------|---------------------------------|-----|----|
| TYPE DE REACTEUR                    | FBR        | PUISSANCE THERMIQUE DU REACTEUR | 591 | MW |
| DATE DE PREMIERE CRITICITE          | 31.08.1973 | PUISSANCE MAX. POSSIBLE BRUTE   | 250 | MW |
| DATE DU PREMIER COUPLAGE            | 13.12.1973 | PUISSANCE MAX. POSSIBLE NETTE   | 233 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 14.07.1974 |                                 |     |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |      |      |      |      |      |      | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------------------------------------|------|------|------|------|------|------|---------------------------|
|  |        |                           | 1984                               | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |                                    |      |      |      |      |      |      |                           |
| THERMIQUE                                      |        | 28905                     | 3534                               | 2935 | 3761 | 3862 | 3684 | 1531 | 2520 | 50732                     |
| ELECTRIQUE BRUTE                               | GWH    | 12242                     | 1527                               | 1249 | 1639 | 1677 | 1588 | 655  | 1055 | 21633                     |
| ELECTRIQUE NETTE                               | GWH    | 11270                     | 1411                               | 1153 | 1519 | 1556 | 1481 | 590  | 970  | 17950                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 53471                     | 6206                               | 6784 | 6996 | 7059 | 6300 | 2678 | 4637 | 91131                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 48370                     | 6052                               | 4949 | 6517 | 6675 | 6360 | 2532 | 4161 | 85617                     |
| TAUX :   |        |                           |                                    |      |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 56                        | 70                                 | 60   | 73   | 72   | 71   | 30   | 48   | 58                        |
| D'UTILISATION EN ENERGIE                       | %      | 55                        | 69                                 | 57   | 74   | 76   | 72   | 29   | 48   | 57                        |

## EXPLOITATION MENSUELLE 1990

|   |        | 1990  |      |      |       |      |       |       |      |      |       |       |       | ANNEE |
|---|--------|-------|------|------|-------|------|-------|-------|------|------|-------|-------|-------|-------|
|   |        | JAN   | FEV  | MAR  | AVR   | MAI  | JUN   | JUL   | AOU  | SEP  | OCT   | NOV   | DEC   |       |
| DISPONIBILITE EN ENERGIE                | GWH    | 173   | 141  | 133  | 0     | 137  | 142   | 145   | 81   | 20   | 0     | 0     | 0     | 972   |
| PRODUCTION D'ENERGIE                    |        |       |      |      |       |      |       |       |      |      |       |       |       |       |
| THERMIQUE                               | GWH    | 454   | 370  | 350  | 2     | 351  | 358   | 372   | 206  | 57   | 0     | 0     | 0     | 2520  |
| ELECTRIQUE BRUTE                        | GWH    | 189   | 155  | 146  | 0     | 148  | 152   | 156   | 87   | 22   | 0     | 0     | 0     | 1055  |
| ELECTRIQUE NETTE                        | GWH    | 177   | 144  | 137  | -2    | 138  | 143   | 146   | 80   | 18   | -1    | -2    | -2    | 970   |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 239   | 239  | 239  |       | 198  | 201   | 200   | 198  | 197  |       |       |       | 239   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 613  | 577  | 0     | 708  | 720   | 744   | 418  | 113  | 0     | 0     | 0     | 4637  |
| TAUX :                                  |        |       |      |      |       |      |       |       |      |      |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 91.2 | 77.7 | 0.0   | 95.2 | 100.0 | 100.0 | 56.2 | 15.7 | 0.0   | 0.0   | 0.0   | 52.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 100.0 | 90.2 | 77.3 | 0.0   | 79.7 | 85.0  | 84.4  | 47.2 | 12.3 | 0.0   | 0.0   | 0.0   | 47.9  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.0   | 9.8  | 22.7 | 100.0 | 20.3 | 15.0  | 15.6  | 52.8 | 87.7 | 100.0 | 100.0 | 100.0 | 52.1  |
| DONT : PROGRAMME                        |        |       |      |      |       |      |       |       |      |      |       |       |       |       |
| HORS PROGRAMME                          | %      | 0.0   | 9.8  | 0.0  | 50.0  | 20.3 | 15.0  | 15.6  | 8.7  | 74.1 | 100.0 | 100.0 | 100.0 | 41.2  |
| D'UTILISATION EN ENERGIE                | %      | 102.1 | 92.2 | 78.9 | -     | 79.4 | 85.0  | 84.4  | 46.0 | 10.9 | -     | -     | -     | 47.5  |
| DE RENDEMENT THERMIQUE NET              | %      | 39.0  | 39.0 | 39.0 | -     | 39.2 | 39.8  | 39.4  | 38.7 | 32.0 | -     | -     | -     | 38.5  |

## DONNEES GENERALES

TYPE DE REACTEUR FBR  
 DATE DE PREMIERE CRITICITE 07.09.1985  
 DATE DU PREMIER COUPLAGE 14.01.1986  
 DEBUT DE L'EXPLOITATION COMMERCIALE 00.00.0000

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3000 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1242 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1200 MW

| DONNEES D'EXPLOITATION ANHUELLE                |        | CUMULEE        |      |      |      |      |      |      | CUMULEE<br>AU<br>31.12.90 |       |
|--|--------|----------------|------|------|------|------|------|------|---------------------------|-------|
|  |        | AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |                           | 1990  |
| PRODUCTION D'ENERGIE :                         |        |                |      |      |      |      |      |      |                           |       |
| THERMIQUE                                      |        |                |      |      | 3652 | 2333 | 0    | 4943 | 1569                      | 12497 |
| ELECTRIQUE BRUTE                               | GWH    |                |      |      | 1134 | 902  | 0    | 1881 | 628                       | 4546  |
| ELECTRIQUE NETTE                               | GWH    |                |      |      | 895  | 738  | -85  | 1660 | 481                       | 3687  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |                |      |      | 2626 | 1489 | 0    | 2699 | 595                       | 7409  |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |                |      |      | 742  | 613  | 0    | 1384 | 403                       | 3142  |
| TAUX :   |        |                |      |      |      |      |      |      |                           |       |
| DE DISPONIBILITE EN ENERGIE                    | %      |                |      |      | 10   | 8    | 0    | 17   | 14                        | 10    |
| D'UTILISATION EN ENERGIE                       | %      |                |      |      | 9    | 7    | -    | 16   | 5                         | 7     |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR   | MAI   | JUN  | JUL  | AOU   | SEP   | OCT   | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 0     | 0     | 0     | 0     | 0     | 537  | 68   | 0     | 0     | 0     | 0     | 893   | 1498  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |       |       |      |      |       |       |       |       |       |       |
| THERMIQUE                               | GWH    | 0     | 0     | 0     | 1     | 0     | 1395 | 172  | 0     | 0     | 0     | 0     | 0     | 1569  |
| ELECTRIQUE BRUTE                        | GWH    | 0     | 0     | 0     | 0     | 0     | 557  | 71   | 0     | 0     | 0     | 0     | 0     | 628   |
| ELECTRIQUE NETTE                        | GWH    | -7    | -5    | -14   | -29   | -16   | 528  | 60   | -6    | -6    | -6    | -10   | 0     | 481   |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        |       |       |       |       |       | 1170 | 1105 |       |       |       |       |       | 1170  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 0     | 0     | 0     | 0     | 0     | 532  | 63   | 0     | 0     | 0     | 0     | 0     | 595   |
| TAUX :                                  |        |       |       |       |       |       |      |      |       |       |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 73.9 | 8.5  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 6.8   |
| DE DISPONIBILITE EN ENERGIE             | %      | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 62.2 | 7.7  | 0.0   | 0.0   | 0.0   | 0.0   | 100.0 | 14.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 37.8 | 92.3 | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   | 85.8  |
| DONT: PROGRAMME                         |        | 100.0 | 14.3  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 9.6   |
| HORS PROGRAMME                          | %      | 0.0   | 85.7  | 100.0 | 100.0 | 100.0 | 37.8 | 92.3 | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   | 76.2  |
| D'UTILISATION EN ENERGIE                | %      | -     | -     | -     | -     | -     | 61.2 | 6.7  | -     | -     | -     | -     | 0.0   | 4.6   |
| DE RENDEMENT THERMIQUE NET              | %      | -     | -     | -     | -     | -     | 37.9 | 34.8 | -     | -     | -     | -     | -     | 30.6  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | GCR        | PUISSANCE THERMIQUE DU REACTEUR | 1170 | MW |
| DATE DE PREMIERE CRIICITE           | 01.03.1966 | PUISSANCE MAX. POSSIBLE BRUTE   | 375  | MW |
| DATE DU PREMIER COUPLAGE            | 04.08.1966 | PUISSANCE MAX. POSSIBLE NETTE   | 360  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 15.08.1967 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 |      |      |      |      |      |      |      | CUMULEE<br>AU<br>31.12.90 |  |
|--|---------------------------|------|------|------|------|------|------|------|---------------------------|--|
|  |                           | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |                           |  |
| PRODUCTION D'ENERGIE :                         |                           |      |      |      |      |      |      |      |                           |  |
| THERMIQUE                                      | 93514                     | 3553 | 0    | 0    | 439  | 3620 | 4836 | 4591 | 110553                    |  |
| ELECTRIQUE BRUTE                               | OWH 26632                 | 1028 | 0    | 0    | 110  | 997  | 1378 | 1299 | 31444                     |  |
| ELECTRIQUE NETTE                               | GWH 25544                 | 985  | -13  | -14  | 89   | 950  | 1311 | 1252 | 30101                     |  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES 88511              | 2988 | 0    | 0    | 493  | 3168 | 5182 | 3822 | 104164                    |  |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES 62648              | 2732 | 0    | 0    | 245  | 2635 | 3644 | 3479 | 75384                     |  |
| TAUX :   |                           |      |      |      |      |      |      |      |                           |  |
| DE DISPONIBILITE EN ENERGIE                    | % 44                      | 32   | 0    | 0    | 3    | 30   | 45   | 88   | 38                        |  |
| D'UTILISATION EN ENERGIE                       | % 43                      | 31   | -    | -    | 3    | 30   | 42   | 80   | 37                        |  |

## EXPLOITATION MEHSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR   | MAL  | JUN  | JUL | AOU | SEP | OCT | NOV | DEC | ANNEE |
|---|--------|------|------|-------|-------|------|------|-----|-----|-----|-----|-----|-----|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 241  | 224  | 266   | 245   | 155  | 240  |     |     |     |     |     |     | 1371  |
| PRODUCTION D'ENERGIE                    |        |      |      |       |       |      |      |     |     |     |     |     |     |       |
| THERMIQUE                               | GWH    | 857  | 926  | 945   | 881   | 743  | 239  |     |     |     |     |     |     | 4591  |
| ELECTRIQUE BRUTE                        | GWH    | 253  | 236  | 281   | 256   | 162  | 110  |     |     |     |     |     |     | 1299  |
| ELECTRIQUE NETTE                        | GWH    | 244  | 228  | 272   | 247   | 155  | 106  |     |     |     |     |     |     | 1252  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 375  | 374  | 374   | 368   | 350  | 355  |     |     |     |     |     |     | 375   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 723  | 636  | 743   | 720   | 687  | 313  |     |     |     |     |     |     | 3822  |
| TAUX :                                  |        |      |      |       |       |      |      |     |     |     |     |     |     |       |
| D'UTILISATION EN TEMPS                  | %      | 97.2 | 94.6 | 100.0 | 100.0 | 92.3 | 43.5 |     |     |     |     |     |     | 88.0  |
| DE DISPONIBILITE EN ENERGIE             | %      | 90.0 | 92.7 | 99.7  | 94.8  | 58.1 | 92.9 |     |     |     |     |     |     | 87.9  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 10.0 | 7.3  | 0.3   | 5.2   | 41.9 | 7.1  |     |     |     |     |     |     | 12.1  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  |     |     |     |     |     |     | 0.0   |
| HORS PROGRAMME                          | %      | 10.0 | 7.3  | 0.3   | 5.2   | 41.9 | 7.1  |     |     |     |     |     |     | 12.1  |
| D'UTILISATION EN ENERGIE                | %      | 91.3 | 94.4 | 101.6 | 95.3  | 57.7 | 41.0 |     |     |     |     |     |     | 80.1  |
| DE RENDEMENT THERMIQUE NET              | %      | 28.5 | 24.6 | 28.8  | 28.1  | 20.8 | 44.4 |     |     |     |     |     |     | 27.3  |

STATION : ST. LAURENT A1

FRANCE

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | GCR        | PUISSANCE THERMIQUE DU REACTEUR | 1650 | MW |
| DATE DE PREMIERE CRITICITE          | 06.01.1969 | PUISSANCE MAX. POSSIBLE BRUTE   | 405  | MW |
| DATE DU PREMIER COUPLAGE            | 14.03.1969 | PUISSANCE MAX. POSSIBLE NETTE   | 390  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 15.08.1969 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 |      |      |      |      |       |      |      |        | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------|------|------|------|-------|------|------|--------|---------------------------|
|  |                           | 1984 | 1985 | 1986 | 1987 | 1988  | 1989 | 1990 |        |                           |
| PRODUCTION D'ENERGIE :                         |                           |      |      |      |      |       |      |      |        |                           |
| THERMIQUE                                      | 121322                    | 7331 | 6833 | 7677 | 6799 | 10430 | 5208 | 3126 | 168727 |                           |
| ELECTRIQUE BRUTE                               | GWH 34386                 | 2067 | 1915 | 2142 | 1957 | 2974  | 1519 | 911  | 47870  |                           |
| ELECTRIQUE NETTE                               | GWH 32933                 | 1970 | 1830 | 2069 | 1888 | 2860  | 1437 | 876  | 45862  |                           |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES 94668              | 5608 | 6041 | 6468 | 5437 | 7971  | 4315 | 2358 | 132866 |                           |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES 74482              | 5051 | 4695 | 5300 | 4844 | 5956  | 3688 | 2243 | 106259 |                           |
| TAUX :   |                           |      |      |      |      |       |      |      |        |                           |
| DE DISPONIBILITE EN ENERGIE                    | % 58                      | 58   | 54   | 67   | 59   | 91    | 62   | 97   | 62     |                           |
| D'UTILISATION EN ENERGIE                       | % 57                      | 58   | 54   | 61   | 55   | 68    | 42   | 26   | 56     |                           |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR  | AVR   | MAI | JUN | JUL | AOU | SEP | OCT | NOV | DEC | ANNEE |
|---|--------|------|------|------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 254  | 232  | 244  | 281   |     |     |     |     |     |     |     |     | 3304  |
| PRODUCTION D'ENERGIE                    |        |      |      |      |       |     |     |     |     |     |     |     |     |       |
| THERMIQUE                               | GWH    | 897  | 826  | 871  | 533   |     |     |     |     |     |     |     |     | 3126  |
| ELECTRIQUE BRUTE                        | GWH    | 264  | 240  | 252  | 154   |     |     |     |     |     |     |     |     | 911   |
| ELECTRIQUE NETTE                        | GWH    | 253  | 231  | 243  | 149   |     |     |     |     |     |     |     |     | 876   |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 390  | 390  | 390  | 390   |     |     |     |     |     |     |     |     | 390   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 678  | 608  | 650  | 422   |     |     |     |     |     |     |     |     | 2358  |
| TAUX :                                  |        |      |      |      |       |     |     |     |     |     |     |     |     |       |
| D'UTILISATION EN TEMPS                  | %      | 91.1 | 90.5 | 87.5 | 58.6  |     |     |     |     |     |     |     |     | 26.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 87.8 | 88.6 | 84.1 | 100.0 |     |     |     |     |     |     |     |     | 96.8  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 12.2 | 11.4 | 15.9 | 0.0   |     |     |     |     |     |     |     |     | 3.2   |
| DONT: PROGRAMME                         |        | 0.0  | 0.0  | 0.1  | 0.0   |     |     |     |     |     |     |     |     | 0.0   |
| HORS PROGRAMME                          | %      | 12.2 | 11.4 | 15.8 | 0.0   |     |     |     |     |     |     |     |     | 3.2   |
| D'UTILISATION EN ENERGIE                | %      | 87.2 | 88.2 | 83.8 | 52.9  |     |     |     |     |     |     |     |     | 25.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 28.2 | 28.0 | 27.9 | 27.9  |     |     |     |     |     |     |     |     | 28.0  |

## DONNEES GENERALES

TYPE DE REACTEUR GCR  
 DATE DE PREMIERE CRITICITE 04.07.1971  
 DATE DU PREMIER COUPLAGE 09.08.1971  
 DEBUT DE L'EXPLOITATION COMMERCIALE 15.08.1971

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 1475 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 465 MW  
 PUISSANCE MAX. POSSIBLE NETTE 450 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 |      |      |      |      |      |      |      | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|------|------|------|------|---------------------------|
|  |        |                           | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |      |      |      |      |                           |
| THERMIQUE                                      |        | 100650                    | 7610 | 7525 | 8309 | 8296 | 9169 | 4618 | 2521 | 144697                    |
| ELECTRIQUE BRUTE                               | GWH    | 30179                     | 2307 | 2264 | 2516 | 2500 | 2749 | 1401 | 938  | 44854                     |
| ELECTRIQUE NETTE                               | GWH    | 28956                     | 2206 | 2172 | 2435 | 2418 | 2640 | 1323 | 873  | 43022                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 69248                     | 6233 | 5656 | 6453 | 6144 | 6859 | 3826 | 2634 | 107053                    |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 57449                     | 4901 | 4827 | 5414 | 5370 | 5868 | 2943 | 1936 | 82708                     |
| TAUX :   |        |                           |      |      |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 54                        | 56   | 56   | 63   | 63   | 73   | 51   | 22   | 54                        |
| D'UTILISATION EN ENERGIE                       | %      | 53                        | 56   | 55   | 62   | 61   | 67   | 34   | 22   | 52                        |

## EXPLOITATION MENSUELLE 1990

|   |        | 1990 |      |      |       |       |       |       |       |      |      |       |      | ANNEE |
|---|--------|------|------|------|-------|-------|-------|-------|-------|------|------|-------|------|-------|
|   |        | JAN  | FEV  | MAR  | AVR   | MAI   | JUN   | JUL   | AOU   | SEP  | OCT  | NOV   | DEC  |       |
| DISPONIBILITE EN ENERGIE                | GWH    | 110  | 218  | 247  | 0     | 0     | 0     | 0     | 0     | 53   | 91   | 0     | 162  | 881   |
| PRODUCTION D'ENERGIE                    |        |      |      |      |       |       |       |       |       |      |      |       |      |       |
| THERMIQUE                               | GWH    | 390  | 766  | 861  | 0     | 0     | 0     | 0     | 0     | 188  | 317  | 0     | 0    | 2521  |
| ELECTRIQUE BRUTE                        | GWH    | 116  | 227  | 258  | 2     | 2     | 2     | 2     | 2     | 58   | 97   | 2     | 170  | 938   |
| ELECTRIQUE NETTE                        | GWH    | 108  | 218  | 248  | -0    | -1    | -0    | 0     | 0     | 53   | 91   | -0    | 161  | 873   |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 435  | 429  | 438  |       |       |       |       |       | 210  | 200  |       | 428  | 438   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 273  | 612  | 599  | 0     | 0     | 0     | 0     | 0     | 278  | 458  | 0     | 414  | 2634  |
| TAUX :                                  |        |      |      |      |       |       |       |       |       |      |      |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 36.7 | 91.1 | 80.6 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 38.6 | 61.6 | 0.0   | 55.6 | 30.1  |
| DE DISPONIBILITE EN ENERGIE             | %      | 32.9 | 72.2 | 74.1 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 16.6 | 27.3 | 0.0   | 43.3 | 22.4  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 67.1 | 27.8 | 25.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 83.4 | 72.7 | 100.0 | 51.7 | 77.6  |
| DONT: PROGRAMME                         |        |      |      |      |       |       |       |       |       |      |      |       |      |       |
| HORS PROGRAMME                          | %      | 67.1 | 27.8 | 25.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 83.4 | 34.2 | 0.0   | 27.7 | 64.2  |
| D'UTILISATION EN ENERGIE                | %      | 32.4 | 72.2 | 74.0 | -     | -     | -     | -     | -     | 16.2 | 27.0 | -     | 43.0 | 22.1  |
| DE RENDEMENT THERMIQUE NET              | %      | 27.8 | 28.5 | 28.8 | -     | -     | -     | -     | -     | 28.1 | 28.5 | -     | 23.2 | 34.6  |



## DONNEES GENERALES

TYPE DE REACTEUR GCR  
 DATE DE PREMIERE CRITICITE 21.03.1972  
 DATE DU PREMIER COUPLAGE 16.04.1972  
 DEBUT DE L'EXPLOITATION COMMERCIALE 00.07.1972

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 1954 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 555 MW  
 PUISSANCE MAX. POSSIBLE NETTE 540 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|------|------|------|------|------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |      |      |      |      |      |                           |
| THERMIQUE                                      |        | 132325                    | 11245 | 10719 | 6060 | 6826 | 9703 | 7220 | 8027 | 192125                    |
| ELECTRIQUE BRUTE                               | GWH    | 35448                     | 3013  | 2870  | 1636 | 1920 | 2610 | 1850 | 2082 | 51430                     |
| ELECTRIQUE NETTE                               | GWH    | 34363                     | 2918  | 2778  | 1560 | 1843 | 2525 | 1773 | 2000 | 47761                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 79859                     | 6849  | 6926  | 4528 | 5647 | 6594 | 4816 | 5497 | 120716                    |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 63641                     | 5402  | 5142  | 2891 | 3416 | 4673 | 3285 | 3705 | 92156                     |
| TAUX :   |        |                           |       |       |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 65                        | 63    | 63    | 62   | 66   | 69   | 57   | 77   | 65                        |
| D'UTILISATION EN ENERGIE                       | %      | 62                        | 62    | 59    | 33   | 39   | 53   | 38   | 42   | 56                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR  | AVR  | MAI  | JUN  | JUL  | AOU  | SEP  | OCT  | NOV  | DEC  | ANNEE |
|---|--------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 330  | 303  | 336  | 329  | 339  | 331  | 298  | 66   | 323  | 326  | 328  | 342  | 3651  |
| PRODUCTION D'ENERGIE                    |        |      |      |      |      |      |      |      |      |      |      |      |      |       |
| THERMIQUE                               | GWH    | 1077 | 624  | 494  | 1004 | 679  | 780  | 509  | 0    | 0    | 872  | 1016 | 974  | 8027  |
| ELECTRIQUE BRUTE                        | GWH    | 278  | 163  | 130  | 259  | 177  | 202  | 133  | 0    | 0    | 226  | 262  | 252  | 2082  |
| ELECTRIQUE NETTE                        | GWH    | 269  | 156  | 123  | 251  | 170  | 195  | 127  | -2   | -2   | 218  | 254  | 243  | 2000  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 465  | 404  | 462  | 466  | 462  | 398  | 444  |      |      | 457  | 432  | 424  | 466   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 665  | 425  | 336  | 593  | 511  | 644  | 428  | 0    | 0    | 589  | 670  | 636  | 5497  |
| TAUX :                                  |        |      |      |      |      |      |      |      |      |      |      |      |      |       |
| D'UTILISATION EN TEMPS                  | %      | 89.4 | 63.2 | 45.2 | 82.4 | 68.7 | 89.4 | 57.5 | 0.0  | 0.0  | 79.2 | 93.1 | 85.5 | 62.8  |
| DE DISPONIBILITE EN ENERGIE             | %      | 82.2 | 83.7 | 83.9 | 84.7 | 84.5 | 85.2 | 74.2 | 16.4 | 83.2 | 81.2 | 84.4 | 85.2 | 77.3  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 17.8 | 16.3 | 16.1 | 15.3 | 15.5 | 14.8 | 25.8 | 83.6 | 16.8 | 18.8 | 15.6 | 14.8 | 22.7  |
| DONT: PROGRAMME                         |        | 0.2  | 0.8  | 0.0  | 0.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1   |
| HORS PROGRAMME                          | %      | 17.6 | 15.5 | 16.1 | 14.7 | 15.5 | 14.8 | 25.8 | 83.6 | 16.8 | 18.8 | 15.6 | 14.8 | 22.6  |
| D'UTILISATION EN ENERGIE                | %      | 67.0 | 43.0 | 30.8 | 64.5 | 42.2 | 50.2 | 31.7 | -    | -    | 54.3 | 65.3 | 60.6 | 42.3  |
| DE RENDEMENT THERMIQUE NET              | %      | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | -    | -    | 25.0 | 25.0 | 25.0 | 24.9  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 1040 | MW |
| DATE DE PREMIERE CRITICITE          | 19.10.1966 | PUISSANCE MAX. POSSIBLE BRUTE   | 320  | MW |
| DATE DU PREMIER COUPLAGE            | 03.04.1967 | PUISSANCE MAX. POSSIBLE NETTE   | 305  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 15.04.1967 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 |      |      |      |      |      |      |      | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|------|------|------|------|---------------------------|
|  |        |                           | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |      |      |      |      |                           |
| THERMIQUE                                      |        | 89019                     | 6607 | 5780 | 4708 | 2705 | 6001 | 5601 | 5141 | 125562                    |
| ELECTRIQUE BRUTE                               | GWH    | 27704                     | 2020 | 1781 | 1445 | 870  | 1828 | 1729 | 1582 | 37958                     |
| ELECTRIQUE NETTE                               | GWH    | 26230                     | 1915 | 1685 | 1361 | 814  | 1728 | 1626 | 1479 | 36839                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 94765                     | 6607 | 5736 | 4634 | 2697 | 5869 | 5818 | 6496 | 132622                    |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 90073                     | 6281 | 5528 | 4459 | 2672 | 5666 | 5335 | 4844 | 124857                    |
| TAUX :   |        |                           |      |      |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 63                        | 72   | 63   | 52   | 31   | 65   | 61   | 56   | 61                        |
| D'UTILISATION EN ENERGIE                       | %      | 61                        | 72   | 63   | 51   | 31   | 65   | 61   | 55   | 60                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR   | AVR   | MAI  | JUN   | JUL   | AOU  | SEP   | OCT   | NOV  | DEC   | ANNEE |
|---|--------|------|-------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 138  | 203   | 224   | 190   | 152  | 159   | 90    | 31   | 0     | 0     | 105  | 191   | 1483  |
| PRODUCTION D'ENERGIE                    |        |      |       |       |       |      |       |       |      |       |       |      |       |       |
| THERMIQUE                               | GWH    | 472  | 690   | 763   | 656   | 558  | 593   | 357   | 141  | 0     | 0     | 237  | 674   | 5141  |
| ELECTRIQUE BRUTE                        | GWH    | 146  | 214   | 236   | 201   | 163  | 170   | 100   | 39   | 0     | 0     | 112  | 203   | 1582  |
| ELECTRIQUE NETTE                        | GWH    | 137  | 203   | 224   | 190   | 152  | 159   | 90    | 31   | -1    | -1    | 103  | 191   | 1479  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 305  |       |       |       |      |       |       |      |       |       |      |       | 305   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 465  | 672   | 743   | 720   | 692  | 720   | 744   | 558  | 0     | 0     | 438  | 744   | 6496  |
| TAUX :                                  |        |      |       |       |       |      |       |       |      |       |       |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 62.5 | 100.0 | 100.0 | 100.0 | 93.0 | 100.0 | 100.0 | 75.0 | 0.0   | 0.0   | 60.8 | 100.0 | 74.2  |
| DE DISPONIBILITE EN ENERGIE             | %      | 61.2 | 99.3  | 99.0  | 86.5  | 67.4 | 72.5  | 39.7  | 14.1 | 0.0   | 0.0   | 47.7 | 84.2  | 55.7  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 38.8 | 0.7   | 1.0   | 13.5  | 32.6 | 27.5  | 60.3  | 85.9 | 100.0 | 100.0 | 52.3 | 15.8  | 44.3  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0   | 0.0   | 0.0   | 3.1  | 0.0   | 0.0   | 0.8  | 53.1  | 100.0 | 44.0 | 0.0   | 16.8  |
| HORS PROGRAMME                          | %      | 38.8 | 0.7   | 1.0   | 13.5  | 29.5 | 27.5  | 60.3  | 85.1 | 46.9  | 0.0   | 6.3  | 15.8  | 27.5  |
| D'UTILISATION EN ENERGIE                | %      | 60.5 | 99.3  | 99.0  | 86.5  | 67.1 | 72.5  | 39.7  | 13.8 | -     | -     | 46.8 | 84.2  | 55.3  |
| DE RENDEMENT THERMIQUE NET              | %      | 29.1 | 29.5  | 29.4  | 29.0  | 27.3 | 26.9  | 25.2  | 22.1 | -     | -     | 43.4 | 28.3  | 28.8  |

STATION : FESSENHEIM 1

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2660 | MW |
| DATE DE PREMIERE CRITICITE          | 07.03.1977 | PUISSANCE MAX. POSSIBLE BRUTE   | 920  | MW |
| DATE DU PREMIER COUPLAGE            | 06.04.1977 | PUISSANCE MAX. POSSIBLE NETTE   | 880  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 30.12.1977 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989 | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |      |       |                           |
| THERMIQUE                                      |        | 90342                     | 18863 | 18314 | 17258 | 15302 | 16745 | 9906 | 15678 | 202908                    |
| ELECTRIQUE BRUTE                               | GWH    | 30771                     | 6742  | 6263  | 5875  | 5229  | 5629  | 3387 | 5252  | 69147                     |
| ELECTRIQUE NETTE                               | GWH    | 29535                     | 6503  | 6044  | 5661  | 5026  | 5402  | 3243 | 5033  | 66446                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 35653                     | 7731  | 7105  | 6702  | 6098  | 7069  | 4108 | 6481  | 80947                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 33297                     | 7387  | 6868  | 6430  | 5712  | 6140  | 3688 | 5720  | 75242                     |
| TAUX :   |        |                           |       |       |       |       |       |      |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 57                        | 86    | 80    | 75    | 74    | 78    | 43   | 75    | 65                        |
| D'UTILISATION EN ENERGIE                       | %      | 56                        | 84    | 78    | 73    | 65    | 70    | 42   | 65    | 62                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV  | MAR  | AVR  | MAI  | JUN   | JUL   | AOU  | SEP  | OCT   | NOV  | DEC  | ANNEE |
|---|--------|-------|------|------|------|------|-------|-------|------|------|-------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 653   | 575  | 648  | 632  | 502  | 591   | 522   | 524  | 77   | 0     | 375  | 648  | 5747  |
| PRODUCTION D'ENERGIE                    |        |       |      |      |      |      |       |       |      |      |       |      |      |       |
| THERMIQUE                               | GWH    | 1936  | 1688 | 1819 | 1847 | 929  | 1802  | 1630  | 700  | 263  | 0     | 1146 | 1918 | 15678 |
| ELECTRIQUE BRUTE                        | GWH    | 655   | 570  | 614  | 625  | 313  | 603   | 532   | 216  | 82   | 0     | 385  | 656  | 5252  |
| ELECTRIQUE NETTE                        | GWH    | 633   | 551  | 592  | 603  | 295  | 581   | 510   | 198  | 76   | -3    | 365  | 633  | 5033  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 871   | 868  | 868  | 866  | 871  | 855   | 760   | 650  | 518  |       | 675  | 868  | 875   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 658  | 719  | 711  | 399  | 720   | 744   | 388  | 158  | 0     | 502  | 738  | 6481  |
| TAUX :                                  |        |       |      |      |      |      |       |       |      |      |       |      |      |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 97.9 | 96.8 | 98.8 | 53.6 | 100.0 | 100.0 | 52.2 | 21.9 | 0.0   | 67.7 | 99.2 | 74.0  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.8  | 97.4 | 99.1 | 99.8 | 76.7 | 93.2  | 79.7  | 80.1 | 12.2 | 0.0   | 59.2 | 99.0 | 74.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.2   | 2.6  | 0.9  | 0.2  | 23.3 | 6.8   | 20.3  | 19.9 | 87.8 | 100.0 | 40.8 | 1.0  | 25.4  |
| DONT: PRDGRAMME                         |        |       |      |      |      |      |       |       |      |      |       |      |      |       |
| HORS PROGRAMME                          | %      | 0.2   | 0.2  | 0.9  | 0.2  | 23.2 | 6.8   | 20.3  | 19.9 | 11.3 | 32.3  | 30.3 | 1.0  | 12.3  |
| D'UTILISATION EN ENERGIE                | %      | 96.7  | 93.1 | 90.5 | 95.2 | 45.1 | 91.7  | 77.9  | 30.2 | 11.9 | -     | 57.7 | 76.7 | 65.3  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.7  | 32.6 | 32.5 | 32.7 | 31.8 | 32.2  | 31.3  | 28.2 | 28.7 | -     | 31.9 | 33.0 | 32.1  |

STATION : FESSENHEIM 2

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2660 | MW |
| DATE DE PREMIERE CRITICITE          | 27.06.1977 | PUISSANCE MAX. POSSIBLE BRUTE   | 920  | MW |
| DATE DU PREMIER COUPLAGE            | 07.10.1977 | PUISSANCE MAX. POSSIBLE NETTE   | 880  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 18.03.1978 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 99974                     | 19731 | 18177 | 16802 | 18718 | 14937 | 17461 | 11066 | 210866                    |
| ELECTRIQUE BRUTE                               | GWH    | 33802                     | 6698  | 6141  | 5727  | 6382  | 5034  | 5891  | 3698  | 73373                     |
| ELECTRIQUE NETTE                               | GWH    | 32456                     | 6459  | 5917  | 5520  | 6153  | 4833  | 5643  | 3540  | 70520                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 40692                     | 7860  | 7248  | 6573  | 7335  | 6158  | 6944  | 4612  | 87422                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 36601                     | 7343  | 6719  | 6272  | 6990  | 5490  | 6412  | 4021  | 79849                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 71                        | 89    | 79    | 73    | 83    | 70    | 96    | 50    | 74                        |
| D'UTILISATION EN ENERGIE                       | %      | 67                        | 84    | 77    | 72    | 80    | 63    | 73    | 46    | 69                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR   | MAI   | JUN   | JUL   | AOU  | SEP   | OCT   | NOV  | DEC   | ANNEE |
|---|--------|------|------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 523  | 415  | 0     | 0     | 0     | 0     | 0     | 344  | 631   | 647   | 610  | 653   | 3823  |
| PRODUCTION D'ENERGIE                    |        |      |      |       |       |       |       |       |      |       |       |      |       |       |
| THERMIQUE                               | GWH    | 1637 | 868  | 0     | 0     | 0     | 0     | 0     | 1056 | 1865  | 1909  | 1793 | 1937  | 11066 |
| ELECTRIQUE BRUTE                        | GWH    | 545  | 277  | 0     | 0     | 0     | 0     | 0     | 346  | 622   | 641   | 610  | 658   | 3698  |
| ELECTRIQUE NETTE                        | GWH    | 523  | 261  | -1    | -0    | -0    | -0    | -7    | 327  | 600   | 618   | 589  | 635   | 3540  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 795  | 641  |       |       |       |       |       | 853  | 851   | 859   | 876  | 872   | 876   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 726  | 542  | 0     | 0     | 0     | 0     | 0     | 440  | 721   | 744   | 695  | 744   | 4612  |
| TAUX :                                  |        |      |      |       |       |       |       |       |      |       |       |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 97.6 | 80.7 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 59.1 | 100.0 | 100.0 | 96.5 | 100.0 | 52.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 79.9 | 70.3 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 52.6 | 99.6  | 98.8  | 96.3 | 99.8  | 49.7  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 20.1 | 29.7 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 47.4 | 0.4   | 1.2   | 3.7  | 0.2   | 50.3  |
| DONT : PROGRAMME                        |        | 0.0  | 17.9 | 100.0 | 100.0 | 100.0 | 100.0 | 93.5  | 6.0  | 0.0   | 0.0   | 0.0  | 0.0   | 43.2  |
| HORS PROGRAMME                          | %      | 20.1 | 11.8 | 0.0   | 0.0   | 0.0   | 0.0   | 6.5   | 41.4 | 0.4   | 1.2   | 3.7  | 0.2   | 7.1   |
| D'UTILISATION EN ENERGIE                | %      | 79.8 | 44.1 | -     | -     | -     | -     | -     | 50.0 | 94.5  | 94.4  | 92.9 | 97.1  | 45.9  |
| DE RENDEMENT THERMIQUE NET              | %      | 31.9 | 30.0 | -     | -     | -     | -     | -     | 31.0 | 32.2  | 32.4  | 32.8 | 32.8  | 32.0  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 20.04.1978 | PUISSANCE MAX. POSSIBLE BRUTE   | 955  | MW |
| DATE DU PREMIER COUPLAGE            | 10.05.1978 | PUISSANCE MAX. POSSIBLE NETTE   | 920  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.03.1979 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 78377                     | 17846 | 18628 | 18655 | 11646 | 14286 | 14750 | 15534 | 187722                    |
| ELECTRIQUE BRUTE                               | GWH    | 26065                     | 6044  | 6239  | 6222  | 3773  | 4737  | 4912  | 5105  | 63097                     |
| ELECTRIQUE NETTE                               | GWH    | 24695                     | 5748  | 5949  | 5941  | 3562  | 4478  | 4697  | 4867  | 59936                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 30094                     | 6580  | 7118  | 7515  | 4729  | 5718  | 5721  | 6213  | 73688                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 26837                     | 6245  | 6465  | 6456  | 3872  | 4866  | 5107  | 5291  | 65140                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 56                        | 88    | 76    | 85    | 52    | 63    | 61    | 69    | 64                        |
| D'UTILISATION EN ENERGIE                       | %      | 54                        | 71    | 74    | 74    | 44    | 55    | 58    | 60    | 59                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR  | MAI  | JUN   | JUL  | AOU  | SEP  | OCT  | NOV  | DEC  | ANNEE |
|---|--------|-------|-------|-------|------|------|-------|------|------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 0     | 0     | 0     | 474  | 596  | 657   | 665  | 677  | 645  | 646  | 583  | 636  | 5579  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |      |      |       |      |      |      |      |      |      |       |
| THERMIQUE                               | GWH    | 0     | 0     | 0     | 1454 | 1591 | 1647  | 1686 | 1730 | 1810 | 1929 | 1779 | 1907 | 15534 |
| ELECTRIQUE BRUTE                        | GWH    | 0     | 0     | 0     | 482  | 523  | 536   | 541  | 552  | 597  | 645  | 589  | 640  | 5105  |
| ELECTRIQUE NETTE                        | GWH    | -0    | -0    | -8    | 457  | 498  | 511   | 515  | 527  | 572  | 619  | 565  | 615  | 4867  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     |       |       |       | 910  | 908  | 899   | 889  | 879  | 901  | 904  | 905  | 912  | 912   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 0     | 0     | 0     | 558  | 659  | 720   | 706  | 718  | 704  | 709  | 707  | 732  | 6213  |
| TAUX :                                  |        |       |       |       |      |      |       |      |      |      |      |      |      |       |
| D'UTILISATION EN TEMPS                  | %      | 0.0   | 0.0   | 0.0   | 77.5 | 88.6 | 100.0 | 94.9 | 96.5 | 97.6 | 95.3 | 93.2 | 98.4 | 70.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 0.0   | 0.0   | 0.0   | 71.7 | 87.2 | 99.3  | 97.2 | 99.0 | 97.4 | 94.5 | 88.2 | 93.1 | 69.3  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 100.0 | 100.0 | 100.0 | 28.3 | 12.8 | 0.7   | 2.8  | 1.0  | 2.6  | 5.5  | 11.8 | 6.9  | 30.7  |
| DONT: PROGRAMME                         |        | 100.0 | 100.0 | 58.1  | 3.3  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 21.4  |
| HORS PROGRAMME                          | %      | 0.0   | 0.0   | 41.9  | 25.0 | 12.8 | 0.7   | 2.8  | 1.0  | 2.6  | 5.5  | 11.8 | 6.9  | 9.3   |
| D'UTILISATION EN ENERGIE                | %      | -     | -     | -     | 69.1 | 72.7 | 77.1  | 75.3 | 77.0 | 86.2 | 90.5 | 85.2 | 89.8 | 60.4  |
| DE RENDEMENT THERMIQUE NET              | %      | -     | -     | -     | 31.5 | 31.3 | 31.0  | 30.6 | 30.5 | 31.6 | 32.1 | 31.7 | 32.2 | 31.3  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 31.08.1978 | PUISSANCE MAX. POSSIBLE BRUTE   | 955  | MW |
| DATE DU PREMIER COUPLAGE            | 21.09.1978 | PUISSANCE MAX. POSSIBLE NETTE   | 920  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.03.1979 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 82033                     | 18164 | 14209 | 20149 | 17261 | 12193 | 15784 | 14105 | 193898                    |
| ELECTRIQUE BRUTE                               | GWH    | 27521                     | 6076  | 4789  | 6843  | 5746  | 4006  | 5189  | 4742  | 61912                     |
| ELECTRIQUE NETTE                               | GWH    | 26124                     | 5788  | 4553  | 6554  | 5484  | 3807  | 4914  | 4535  | 61760                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 32365                     | 6905  | 5235  | 7634  | 6637  | 4935  | 6467  | 5474  | 75652                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 28393                     | 6289  | 4949  | 7122  | 5957  | 4137  | 5344  | 4932  | 67123                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 66                        | 78    | 57    | 87    | 76    | 62    | 87    | 63    | 70                        |
| D'UTILISATION EN ENERGIE                       | %      | 61                        | 72    | 57    | 81    | 68    | 47    | 61    | 56    | 62                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR  | MAI   | JUN   | JUL  | AOU  | SEP  | OCT  | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|------|------|-------|-------|------|------|------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 613   | 459   | 534  | 133  | 0     | 0     | 34   | 636  | 640  | 672  | 660   | 683   | 5064  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |      |       |       |      |      |      |      |       |       |       |
| THERMIQUE                               | GWH    | 1895  | 1415  | 676  | 0    | 0     | 0     | 176  | 1855 | 1970 | 2050 | 2000  | 2068  | 14105 |
| ELECTRIQUE BRUTE                        | GWH    | 638   | 474   | 218  | 0    | 0     | 0     | 37   | 612  | 665  | 698  | 686   | 713   | 4742  |
| ELECTRIQUE NETTE                        | GWH    | 612   | 451   | 200  | -0   | -1    | -0    | 26   | 587  | 641  | 673  | 661   | 687   | 4535  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 895   | 782   | 610  |      |       |       | 740  | 912  | 923  | 925  | 927   | 934   | 934   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 386  | 0    | 0     | 0     | 77   | 680  | 712  | 739  | 720   | 744   | 5474  |
| TAUX :                                  |        |       |       |      |      |       |       |      |      |      |      |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 52.0 | 0.0  | 0.0   | 0.0   | 10.3 | 91.4 | 98.8 | 99.3 | 100.0 | 100.0 | 62.5  |
| DE DISPONIBILITE EN ENERGIE             | %      | 89.6  | 74.4  | 78.1 | 20.3 | 0.0   | 0.0   | 5.1  | 93.0 | 96.6 | 98.4 | 97.8  | 100.0 | 63.0  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 10.4  | 25.6  | 21.9 | 79.7 | 100.0 | 100.0 | 94.9 | 7.0  | 3.4  | 1.6  | 0.2   | 0.0   | 37.0  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0   | 0.0  | 79.7 | 100.0 | 56.7  | 4.2  | 2.1  | 0.0  | 0.0  | 0.0   | 0.0   | 20.2  |
| HORS PROGRAMME                          | %      | 10.4  | 25.6  | 21.9 | 0.0  | 0.0   | 43.3  | 90.7 | 4.9  | 3.4  | 1.6  | 0.2   | 0.0   | 16.8  |
| D'UTILISATION EN ENERGIE                | %      | 89.4  | 73.0  | 29.3 | -    | -     | -     | 3.8  | 85.8 | 96.6 | 98.3 | 97.8  | 100.4 | 56.3  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.3  | 31.9  | 29.6 | -    | -     | -     | 14.6 | 31.7 | 32.5 | 32.8 | 33.1  | 33.2  | 32.1  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 17.02.1979  
 DATE DU PREMIER COUPLAGE 08.03.1979  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.07.1979

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 917 MW  
 PUISSANCE MAX. POSSIBLE NETTE 880 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 83061                     | 18574 | 19948 | 17006 | 15335 | 11052 | 17954 | 10631 | 193561                    |
| ELECTRIQUE BRUTE                               | GWH    | 27531                     | 6199  | 6583  | 5637  | 4991  | 3574  | 5847  | 3403  | 63765                     |
| ELECTRIQUE NETTE                               | GWH    | 26055                     | 5876  | 6224  | 5304  | 4673  | 3308  | 5540  | 3167  | 60146                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 31411                     | 6896  | 7697  | 6622  | 6180  | 4525  | 6846  | 4312  | 75489                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 28944                     | 6527  | 6912  | 5895  | 5195  | 3672  | 6158  | 3600  | 66903                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 72                        | 76    | 87    | 76    | 78    | 52    | 76    | 54    | 71                        |
| D'UTILISATION EN ENERGIE                       | %      | 69                        | 74    | 79    | 67    | 59    | 42    | 70    | 41    | 65                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR  | AVR   | MAI  | JUN  | JUL  | AOU  | SEP   | OCT   | NOV   | DEC   | ANNEE |
|---|--------|------|------|------|-------|------|------|------|------|-------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 623  | 557  | 625  | 615   | 561  | 571  | 506  | 65   | 0     | 0     | 0     | 0     | 4123  |
| PRODUCTION D'ENERGIE                    |        |      |      |      |       |      |      |      |      |       |       |       |       |       |
| THERMIQUE                               | GWH    | 1926 | 1671 | 1854 | 1959  | 1076 | 721  | 1316 | 107  | 0     | 0     | 0     | 0     | 10631 |
| ELECTRIQUE BRUTE                        | GWH    | 636  | 543  | 598  | 628   | 342  | 223  | 403  | 30   | 0     | 0     | 0     | 0     | 3403  |
| ELECTRIQUE NETTE                        | GWH    | 604  | 514  | 566  | 596   | 313  | 197  | 373  | 25   | -1    | -0    | -0    | -16   | 3167  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 889  | 894  | 877  | 896   | 812  | 709  | 686  | 385  |       |       |       |       | 896   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 717  | 639  | 715  | 720   | 418  | 315  | 714  | 74   | 0     | 0     | 0     | 0     | 4312  |
| TAUX :                                  |        |      |      |      |       |      |      |      |      |       |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 96.4 | 95.1 | 96.2 | 100.0 | 56.2 | 43.8 | 96.0 | 9.9  | 0.0   | 0.0   | 0.0   | 0.0   | 49.2  |
| DE DISPONIBILITE EN ENERGIE             | %      | 95.2 | 94.4 | 95.6 | 97.1  | 85.7 | 90.1 | 77.4 | 9.9  | 0.0   | 0.0   | 0.0   | 0.0   | 53.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 4.8  | 5.6  | 4.4  | 2.9   | 14.3 | 9.9  | 22.6 | 90.1 | 100.0 | 100.0 | 100.0 | 100.0 | 46.4  |
| DOHT: PROGRAMME                         |        | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 90.1 | 100.0 | 100.0 | 100.0 | 96.8  | 40.8  |
| HORS PROGRAMME                          | %      | 4.8  | 5.6  | 4.4  | 2.9   | 14.3 | 9.9  | 22.6 | 0.0  | 0.0   | 0.0   | 0.0   | 3.2   | 5.6   |
| D'UTILISATION EN ENERGIE                | %      | 92.3 | 86.9 | 86.5 | 94.1  | 47.7 | 31.1 | 56.9 | 3.8  | -     | -     | -     | -     | 41.1  |
| DE RENDEMENT THERMIQUE NET              | %      | 31.4 | 30.8 | 30.5 | 30.4  | 29.1 | 27.3 | 28.3 | 23.1 | -     | -     | -     | -     | 29.8  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 15.07.1979 | PUISSANCE MAX. POSSIBLE BRUTE   | 917  | MW |
| DATE DU PREMIER COUPLAGE            | 31.07.1979 | PUISSANCE MAX. POSSIBLE NETTE   | 880  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 03.01.1980 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                       |     | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|---|-----|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                                |     |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE   |     | 76955                     | 18362 | 19465 | 17339 | 16067 | 17487 | 15468 | 18157 | 192299                    |
| ELECTRIQUE BRUTE                                      | GWH | 25384                     | 6110  | 6422  | 5785  | 5299  | 5805  | 5034  | 5907  | 65745                     |
| ELECTRIQUE NETTE                                      | GWH | 23910                     | 5778  | 6072  | 5465  | 5009  | 5471  | 4749  | 5583  | 62037                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS HEURES        |     |                           |       |       |       |       |       |       |       |                           |
|   |     | 30054                     | 6884  | 7314  | 6493  | 6044  | 6465  | 6185  | 7156  | 76595                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE HEURES |     |                           |       |       |       |       |       |       |       |                           |
|   |     | 26569                     | 6421  | 6745  | 6071  | 5563  | 6079  | 5274  | 6342  | 67063                     |
| TAUX :  |     |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                           | %   | 71                        | 74    | 81    | 75    | 66    | 85    | 65    | 75    | 73                        |
| D'UTILISATION EN ENERGIE                              | %   | 69                        | 73    | 77    | 69    | 64    | 69    | 60    | 72    | 69                        |

| EXPLOITATION MENSUELLE                         |     | 1990 |      |       |      |      |       |       |       |      |       |       |       |       |
|--|-----|------|------|-------|------|------|-------|-------|-------|------|-------|-------|-------|-------|
|  |     | JAN  | FEV  | MAR   | AVR  | MAI  | JUN   | JUL   | AOU   | SEP  | OCT   | NOV   | DEC   | ANNEE |
| DISPONIBILITE EN ENERGIE                       | GWH | 486  | 119  | 0     | 287  | 619  | 612   | 627   | 626   | 614  | 655   | 592   | 530   | 5767  |
| PRODUCTION D'ENERGIE                           |     |      |      |       |      |      |       |       |       |      |       |       |       |       |
| THERMIQUE                                      | GWH | 1558 | 401  | 0     | 946  | 2009 | 1978  | 2041  | 2033  | 1775 | 1864  | 1800  | 1752  | 18157 |
| ELECTRIQUE BRUTE                               | GWH | 518  | 129  | 0     | 303  | 650  | 643   | 660   | 659   | 573  | 611   | 600   | 561   | 5907  |
| ELECTRIQUE NETTE                               | GWH | 486  | 118  | -2    | 280  | 618  | 612   | 628   | 627   | 542  | 578   | 568   | 530   | 5583  |
| PUISSANCE MAX. ATTEINTE NETTE                  | MW  | 739  | 638  |       | 885  | 880  | 878   | 874   | 863   | 860  | 796   | 817   | 786   | 885   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS HEURES |     |      |      |       |      |      |       |       |       |      |       |       |       |       |
|  |     | 724  | 217  | 0     | 366  | 732  | 720   | 744   | 744   | 701  | 744   | 720   | 744   | 7156  |
| TAUX :   |     |      |      |       |      |      |       |       |       |      |       |       |       |       |
| D'UTILISATION EN TEMPS                         | %   | 97.3 | 32.3 | 0.0   | 50.8 | 98.4 | 100.0 | 100.0 | 100.0 | 97.2 | 100.0 | 100.0 | 100.0 | 81.7  |
| DE DISPONIBILITE EN ENERGIE                    | %   | 74.4 | 20.3 | 0.0   | 45.3 | 94.5 | 96.7  | 95.8  | 95.7  | 96.9 | 100.0 | 93.5  | 80.9  | 74.8  |
| D'INDISPONIBILITE EN ENERGIE                   | %   | 25.6 | 79.7 | 100.0 | 54.7 | 5.5  | 3.3   | 4.2   | 4.3   | 3.1  | 0.0   | 6.5   | 19.1  | 25.2  |
| DONT: PROGRAMME                                |     |      |      |       |      |      |       |       |       |      |       |       |       |       |
|  |     | 0.0  | 67.8 | 100.0 | 31.8 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 16.3  |
| HORS PROGRAMME                                 |     |      |      |       |      |      |       |       |       |      |       |       |       |       |
|  | %   | 25.6 | 11.9 | 0.0   | 22.9 | 5.5  | 3.3   | 4.2   | 4.3   | 3.1  | 0.0   | 6.5   | 19.1  | 8.9   |
| D'UTILISATION EN ENERGIE                       | %   | 74.2 | 19.9 | -     | 44.2 | 94.4 | 96.7  | 95.8  | 95.7  | 85.4 | 88.2  | 87.7  | 80.9  | 72.4  |
| DE RENDEMENT THERMIQUE NET                     | %   | 31.2 | 29.4 | -     | 29.6 | 30.8 | 31.0  | 30.8  | 30.8  | 30.5 | 31.0  | 31.6  | 30.2  | 30.8  |



## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRIJICITE          | 21.02.1980 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 13.03.1980 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.12.1980 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 48725                     | 20085 | 19148 | 17576 | 14853 | 13400 | 15816 | 13918 | 163521                    |
| ELECTRIQUE BRUTE                               | GWH    | 16332                     | 6929  | 6494  | 5985  | 4952  | 4511  | 5351  | 4685  | 55240                     |
| ELECTRIQUE NETTE                               | GWH    | 15416                     | 6617  | 6203  | 5711  | 4654  | 4276  | 5090  | 4458  | 52423                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 18833                     | 7654  | 7218  | 6508  | 5845  | 5306  | 6224  | 5425  | 63013                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 16865                     | 7273  | 6815  | 6272  | 5116  | 4699  | 5598  | 4897  | 57535                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 52                        | 86    | 80    | 74    | 89    | 57    | 68    | 59    | 66                        |
| D'UTILISATION EN ENERGIE                       | %      | 51                        | 83    | 78    | 72    | 58    | 54    | 64    | 56    | 61                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR   | MAI   | JUN   | JUL   | AOU  | SEP   | OCT   | NOV   | DEC  | ANNEE |
|---|--------|------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 660  | 516  | 675   | 654   | 675   | 647   | 589   | 161  | 0     | 0     | 0     | 134  | 4711  |
| PRODUCTION D'ENERGIE                    |        |      |      |       |       |       |       |       |      |       |       |       |      |       |
| THERMIQUE                               | GWH    | 1973 | 1539 | 1950  | 1884  | 1859  | 1909  | 1844  | 521  | 0     | 0     | 0     | 440  | 13918 |
| ELECTRIQUE BRUTE                        | GWH    | 670  | 519  | 660   | 636   | 624   | 645   | 620   | 171  | 0     | 0     | 0     | 142  | 4685  |
| ELECTRIQUE NETTE                        | GWH    | 642  | 495  | 633   | 610   | 596   | 617   | 590   | 159  | -1    | -0    | -2    | 123  | 4458  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 914  | 914  | 916   | 911   | 910   | 903   | 861   | 733  |       |       |       | 915  | 916   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 739  | 577  | 743   | 720   | 744   | 720   | 744   | 240  | 0     | 0     | 0     | 198  | 5425  |
| TAUX :                                  |        |      |      |       |       |       |       |       |      |       |       |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 99.3 | 85.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 32.3 | 0.0   | 0.0   | 0.0   | 25.6 | 61.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 97.7 | 84.3 | 100.0 | 100.0 | 99.8  | 98.8  | 87.1  | 23.9 | 0.0   | 0.0   | 0.0   | 17.9 | 59.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 2.3  | 15.7 | 0.0   | 0.0   | 0.2   | 1.2   | 12.9  | 76.1 | 100.0 | 100.0 | 100.0 | 80.1 | 40.8  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0  | 0.0   | 0.0   | 0.1   | 0.0   | 0.0   | 67.7 | 100.0 | 100.0 | 60.0  | 12.8 | 28.5  |
| HORS PROGRAMME                          | %      | 2.3  | 15.7 | 0.0   | 0.0   | 0.1   | 1.2   | 12.9  | 8.4  | 0.0   | 0.0   | 40.0  | 67.3 | 12.3  |
| D'UTILISATION EN ENERGIE                | %      | 94.9 | 80.9 | 93.6  | 93.0  | 88.0  | 94.2  | 87.1  | 23.4 | -     | -     | -     | 18.2 | 55.9  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.6 | 32.2 | 32.4  | 32.4  | 32.0  | 32.3  | 32.0  | 30.5 | -     | -     | -     | 28.1 | 32.0  |

STATION : GRAVELINES B2

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 02.08.1980 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 26.08.1980 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.12.1980 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                    |     | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|-----|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                             |     |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE  |     | 47833                     | 17920 | 21235 | 20085 | 17048 | 17682 | 19874 | 19068 | 180746                    |
| ELECTRIQUE BRUTE                                   | GWH | 16279                     | 6027  | 7141  | 6740  | 5638  | 5874  | 6716  | 6436  | 60850                     |
| ELECTRIQUE NETTE                                   | GWH | 15443                     | 5742  | 6830  | 6432  | 5359  | 5577  | 6413  | 6141  | 57937                     |
| DUREE DE MARCHE DES TURBOGENERATEURS HEURES        |     |                           |       |       |       |       |       |       |       |                           |
|  |     | 18837                     | 6751  | 7950  | 7956  | 6807  | 7227  | 7460  | 7164  | 70152                     |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE HEURES |     |                           |       |       |       |       |       |       |       |                           |
|  |     | 16889                     | 6307  | 7507  | 7069  | 5887  | 6131  | 7043  | 6745  | 63579                     |
| TAUX :   |     |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                        | %   | 62                        | 82    | 90    | 97    | 75    | 77    | 84    | 80    | 76                        |
| D'UTILISATION EN ENERGIE                           | %   | 58                        | 72    | 86    | 81    | 67    | 70    | 80    | 77    | 70                        |

EXPLOITATION MENSUELLE 1990

|   |     | JAN  | FEV   | MAR   | AVR   | MAI  | JUN   | JUL  | AOU  | SEP  | OCT   | NOV   | DEC   | ANNEE |
|---|-----|------|-------|-------|-------|------|-------|------|------|------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                    | GWH | 664  | 608   | 670   | 634   | 345  | 0     | 140  | 637  | 652  | 675   | 654   | 664   | 6343  |
| PRODUCTION D'ENERGIE                        |     |      |       |       |       |      |       |      |      |      |       |       |       |       |
| THERMIQUE                                   | GWH | 2037 | 1861  | 2058  | 1925  | 1079 | 0     | 477  | 1870 | 1865 | 1982  | 1939  | 1776  | 19068 |
| ELECTRIQUE BRUTE                            | GWH | 693  | 634   | 700   | 652   | 362  | 0     | 147  | 623  | 623  | 671   | 659   | 672   | 6436  |
| ELECTRIQUE NETTE                            | GWH | 664  | 608   | 671   | 624   | 343  | -1    | 127  | 595  | 595  | 642   | 631   | 643   | 6141  |
| PUISSANCE MAX. ATTEINTE NETTE               | MW  | 910  | 909   | 907   | 904   | 829  |       | 893  | 889  | 929  | 905   | 909   | 916   | 929   |
| DUREE DE MARCHE DES TURBOGENERATEURS HEURES |     |      |       |       |       |      |       |      |      |      |       |       |       |       |
|   |     | 736  | 672   | 743   | 720   | 434  | 0     | 226  | 706  | 719  | 744   | 720   | 744   | 7164  |
| TAUX :                                      |     |      |       |       |       |      |       |      |      |      |       |       |       |       |
| D'UTILISATION EN TEMPS                      | %   | 98.9 | 100.0 | 100.0 | 100.0 | 58.3 | 0.0   | 30.4 | 94.9 | 99.7 | 100.0 | 100.0 | 100.0 | 81.8  |
| DE DISPONIBILITE EN ENERGIE                 | %   | 98.1 | 99.3  | 99.2  | 96.8  | 51.0 | 0.0   | 20.7 | 94.1 | 99.6 | 99.9  | 100.0 | 98.1  | 79.6  |
| D'INDISPONIBILITE EN ENERGIE                | %   | 1.9  | 0.7   | 0.8   | 3.2   | 49.0 | 100.0 | 79.3 | 5.9  | 0.4  | 0.1   | 0.0   | 1.9   | 20.4  |
| DONT: PROGRAMME                             |     |      |       |       |       |      |       |      |      |      |       |       |       |       |
|   |     | 0.0  | 0.1   | 0.0   | 0.0   | 41.8 | 100.0 | 33.3 | 4.8  | 0.0  | 0.0   | 0.0   | 0.0   | 15.0  |
| HORS PROGRAMME                              |     |      |       |       |       |      |       |      |      |      |       |       |       |       |
|   | %   | 1.9  | 0.6   | 0.8   | 3.2   | 7.2  | 0.0   | 46.0 | 1.1  | 0.4  | 0.1   | 0.0   | 1.9   | 5.4   |
| D'UTILISATION EN ENERGIE                    | %   | 98.1 | 99.4  | 99.2  | 95.2  | 50.7 | -     | 18.8 | 87.9 | 90.7 | 94.9  | 95.3  | 95.0  | 77.0  |
| DE RENDEMENT THERMIQUE NET                  | %   | 32.6 | 32.7  | 32.6  | 32.4  | 31.8 | -     | 26.7 | 31.8 | 31.9 | 32.4  | 32.5  | 32.6  | 32.2  |

STATION : GRAVELINES B3

FRANCE

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 30.11.1980 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 12.12.1980 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.06.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 46371                     | 20594 | 19195 | 19933 | 16684 | 15664 | 19567 | 18902 | 176910                    |
| ELECTRIQUE BRUTE                               | GWH    | 15469                     | 7035  | 6574  | 6795  | 5645  | 5124  | 6600  | 6403  | 57645                     |
| ELECTRIQUE NETTE                               | GWH    | 14708                     | 6742  | 6290  | 6505  | 5376  | 4823  | 6302  | 6115  | 56861                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 18249                     | 7505  | 7151  | 7335  | 6188  | 6724  | 7320  | 7114  | 67586                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 16099                     | 7405  | 6912  | 7148  | 5904  | 5297  | 6929  | 6719  | 62413                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 65                        | 84    | 80    | 82    | 74    | 95    | 80    | 78    | 77                        |
| D'UTILISATION EN ENERGIE                       | %      | 60                        | 84    | 79    | 82    | 67    | 60    | 79    | 77    | 71                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR  | AVR   | MAI  | JUN  | JUL  | AOU   | SEP  | OCT   | NOV   | DEC  | ANNEE |
|---|--------|------|-------|------|-------|------|------|------|-------|------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 606  | 506   | 138  | 0     | 391  | 631  | 606  | 666   | 648  | 673   | 654   | 662  | 6181  |
| PRODUCTION D'ENERGIE                    |        |      |       |      |       |      |      |      |       |      |       |       |      |       |
| THERMIQUE                               | GWH    | 1878 | 1567  | 435  | 0     | 1241 | 1938 | 1763 | 2064  | 1934 | 2065  | 1997  | 2020 | 18902 |
| ELECTRIQUE BRUTE                        | GWH    | 635  | 529   | 147  | 0     | 410  | 658  | 596  | 694   | 653  | 702   | 685   | 695  | 6403  |
| ELECTRIQUE NETTE                        | GWH    | 606  | 504   | 136  | -6    | 385  | 632  | 570  | 666   | 626  | 673   | 657   | 666  | 6115  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 907  | 818   | 683  |       | 911  | 916  | 917  | 903   | 913  | 911   | 919   | 921  | 921   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 743  | 672   | 219  | 0     | 506  | 700  | 637  | 744   | 699  | 744   | 720   | 730  | 7114  |
| TAUX :                                  |        |      |       |      |       |      |      |      |       |      |       |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 99.9 | 100.0 | 29.5 | 0.0   | 68.0 | 97.2 | 85.6 | 100.0 | 96.9 | 100.0 | 100.0 | 98.1 | 81.2  |
| DE DISPONIBILITE EN ENERGIE             | %      | 89.6 | 82.8  | 20.6 | 0.0   | 57.8 | 96.5 | 89.6 | 98.4  | 98.9 | 99.4  | 99.9  | 97.8 | 77.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 10.4 | 17.2  | 79.4 | 100.0 | 42.2 | 3.5  | 10.4 | 1.6   | 1.1  | 0.6   | 0.1   | 2.2  | 22.4  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0   | 70.5 | 73.3  | 10.1 | 0.0  | 0.0  | 0.1   | 0.0  | 0.0   | 0.1   | 0.0  | 12.9  |
| HORS PROGRAMME                          | %      | 10.4 | 17.2  | 8.9  | 26.7  | 32.1 | 3.5  | 10.4 | 1.5   | 1.1  | 0.6   | 0.0   | 2.2  | 9.5   |
| D'UTILISATION EN ENERGIE                | %      | 89.6 | 82.5  | 20.1 | -     | 56.9 | 96.4 | 84.2 | 98.4  | 95.4 | 99.4  | 100.2 | 93.4 | 76.7  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.3 | 32.2  | 31.2 | -     | 31.1 | 32.6 | 32.3 | 32.3  | 32.4 | 32.6  | 32.9  | 33.0 | 32.4  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 31.05.1981 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 14.06.1981 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.10.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 |       |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |        |                           | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 38299                     | 18521 | 19084 | 20304 | 17112 | 19551 | 15558 | 18971 | 167399                    |
| ELECTRIQUE BRUTE                               | GWH    | 12757                     | 6286  | 6463  | 6860  | 5740  | 6534  | 5233  | 6436  | 56308                     |
| ELECTRIQUE NETTE                               | GWH    | 12084                     | 6001  | 6175  | 6557  | 5461  | 6226  | 4974  | 6141  | 53618                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 15615                     | 7173  | 7387  | 7862  | 6787  | 7789  | 6025  | 7058  | 65696                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 13254                     | 6597  | 6789  | 7209  | 6001  | 6843  | 5466  | 6745  | 58904                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 65                        | 83    | 81    | 89    | 76    | 86    | 67    | 77    | 76                        |
| D'UTILISATION EN ENERGIE                       | %      | 59                        | 75    | 78    | 82    | 69    | 78    | 62    | 77    | 70                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR  | AVR  | MAI   | JUN   | JUL   | AOU  | SEP   | OCT  | NOV   | DEC  | ANNEE |
|---|--------|------|-------|------|------|-------|-------|-------|------|-------|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 647  | 611   | 656  | 605  | 673   | 650   | 668   | 627  | 542   | 74   | 0     | 393  | 6146  |
| PRODUCTION D'ENERGIE                    |        |      |       |      |      |       |       |       |      |       |      |       |      |       |
| THERMIQUE                               | GWH    | 1985 | 1864  | 2006 | 1860 | 2064  | 1996  | 2064  | 1949 | 1690  | 249  | 9     | 1234 | 18971 |
| ELECTRIQUE BRUTE                        | GWH    | 678  | 642   | 688  | 633  | 702   | 679   | 697   | 656  | 571   | 78   | 0     | 413  | 6436  |
| ELECTRIQUE NETTE                        | GWH    | 650  | 616   | 660  | 605  | 673   | 651   | 668   | 627  | 543   | 71   | -10   | 390  | 6141  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 923  | 928   | 929  | 916  | 911   | 912   | 907   | 896  | 824   | 684  |       | 722  | 929   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 723  | 672   | 728  | 683  | 744   | 720   | 744   | 725  | 721   | 119  | 0     | 479  | 7058  |
| TAUX :                                  |        |      |       |      |      |       |       |       |      |       |      |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 97.2 | 100.0 | 98.0 | 94.9 | 100.0 | 100.0 | 100.0 | 97.4 | 100.0 | 16.0 | 0.0   | 64.4 | 80.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 95.6 | 99.9  | 97.1 | 92.4 | 99.5  | 99.4  | 98.8  | 92.8 | 82.8  | 11.0 | 0.0   | 53.2 | 77.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 4.4  | 0.1   | 2.9  | 7.6  | 0.5   | 0.6   | 1.2   | 7.2  | 17.2  | 89.0 | 100.0 | 41.8 | 22.9  |
| DONT : PROGRAMME                        |        | 0.0  | 0.1   | 0.0  | 0.0  | 0.0   | 0.1   | 0.0   | 0.0  | 0.2   | 83.6 | 60.0  | 6.0  | 12.6  |
| HORS PROGRAMME                          | %      | 4.4  | 0.0   | 2.9  | 7.6  | 0.5   | 0.5   | 1.2   | 7.2  | 17.0  | 5.4  | 40.0  | 35.8 | 10.3  |
| D'UTILISATION EN ENERGIE                | %      | 96.0 | 100.7 | 97.6 | 92.4 | 99.4  | 99.3  | 98.6  | 92.6 | 82.7  | 10.5 | -     | 57.5 | 77.0  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.7 | 33.0  | 32.9 | 32.5 | 32.6  | 32.6  | 32.3  | 32.1 | 32.1  | 28.5 | -     | 31.6 | 32.4  |

STATION : GRAVELINES C5

FRANCE

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRIICITE           | 05.08.1984 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 28.08.1984 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 15.01.1985 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |                           | PRODUCTION D'ENERGIE :             |       |       |       |       |       |       |                           |
| THERMIQUE                                      |                           | 3086                               | 20762 | 16118 | 16457 | 15622 | 18804 | 18682 | 10 <sup>0</sup> 531       |
| ELECTRIQUE BRUTE                               | GWH                       | 968                                | 7093  | 5427  | 5537  | 5242  | 6322  | 6290  | 35878                     |
| ELECTRIQUE NETTE                               | GWH                       | 875                                | 6768  | 5151  | 5236  | 4966  | 6014  | 5990  | 35000                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    | 1573                               | 7785  | 6673  | 6818  | 6306  | 7198  | 7367  | 43720                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    | 962                                | 7437  | 5659  | 5755  | 5455  | 6605  | 6579  | 38452                     |
| TAUX :   |                           |                                    |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         | 33                                 | 90    | 75    | 81    | 72    | 81    | 81    | 77                        |
| D'UTILISATION EN ENERGIE                       | %                         | 32                                 | 85    | 65    | 66    | 62    | 75    | 75    | 69                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR   | AVR   | MAI   | JUN  | JUL   | AOU  | SEP  | OCT   | NOV   | DEC   | ANNEE |
|---|--------|------|-------|-------|-------|-------|------|-------|------|------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 671  | 611   | 675   | 652   | 626   | 484  | 0     | 73   | 631  | 676   | 651   | 576   | 6426  |
| PRODUCTION D'ENERGIE                    |        |      |       |       |       |       |      |       |      |      |       |       |       |       |
| THERMIQUE                               | GWH    | 1944 | 1723  | 1872  | 1893  | 1922  | 1528 | 0     | 269  | 1775 | 1899  | 1718  | 1742  | 18682 |
| ELECTRIQUE BRUTE                        | GWH    | 667  | 582   | 636   | 647   | 656   | 511  | 0     | 79   | 589  | 633   | 637   | 654   | 6290  |
| ELECTRIQUE NETTE                        | GWH    | 638  | 555   | 606   | 618   | 627   | 484  | -2    | 63   | 562  | 605   | 610   | 625   | 5990  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 921  | 910   | 915   | 910   | 906   | 787  |       | 871  | 904  | 901   | 903   | 911   | 921   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 739  | 672   | 743   | 720   | 744   | 697  | 0     | 141  | 703  | 744   | 720   | 744   | 7367  |
| TAUX :                                  |        |      |       |       |       |       |      |       |      |      |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 99.3 | 100.0 | 100.0 | 100.0 | 100.0 | 96.8 | 0.0   | 19.0 | 97.5 | 100.0 | 100.0 | 100.0 | 84.1  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.2 | 99.9  | 100.0 | 99.6  | 92.5  | 74.0 | 0.0   | 10.9 | 96.3 | 100.0 | 97.5  | 99.9  | 80.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.8  | 0.1   | 0.0   | 0.4   | 7.5   | 26.0 | 100.0 | 89.1 | 3.7  | 0.0   | 0.5   | 0.1   | 19.4  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 3.4  | 100.0 | 46.6 | 0.1  | 0.0   | 0.2   | 0.0   | 12.8  |
| HORS PROGRAMME                          | %      | 0.8  | 0.1   | 0.0   | 0.4   | 7.5   | 22.6 | 0.0   | 42.5 | 3.6  | 0.0   | 0.3   | 0.1   | 6.6   |
| D'UTILISATION EN ENERGIE                | %      | 94.2 | 90.8  | 89.7  | 94.4  | 92.6  | 73.8 | -     | 9.3  | 85.6 | 89.3  | 93.1  | 92.4  | 75.1  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.8 | 32.2  | 32.4  | 32.7  | 32.6  | 31.7 | -     | 23.3 | 31.6 | 31.8  | 31.8  | 32.2  | 32.1  |

STATION : GRAVELINES C6

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 21.07.1985 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 01.08.1985 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 25.10.1985 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |  | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--|---------------------------|------|------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |  |                           |      |      |       |       |       |       |       |                           |
| THERMIQUE                                      |  |                           |      | 7350 | 17632 | 17854 | 19868 | 16227 | 19148 | 92079                     |
| ELECTRIQUE BRUTE                               |  | GWH                       |      | 2470 | 5814  | 5883  | 6786  | 5444  | 6423  | 32821                     |
| ELECTRIQUE NETTE                               |  | GWH                       |      | 2337 | 5537  | 5588  | 6491  | 5175  | 6109  | 31237                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |  | HEURES                    |      | 3111 | 6677  | 7032  | 7453  | 6274  | 7553  | 32100                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |  | HEURES                    |      | 2567 | 6088  | 6141  | 7133  | 5685  | 6710  | 34324                     |
| TAUX :   |  |                           |      |      |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |  | %                         |      | 71   | 76    | 80    | 81    | 71    | 87    | 78                        |
| D'UTILISATION EN ENERGIE                       |  | %                         |      | 70   | 70    | 70    | 81    | 65    | 77    | 72                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR   | AVR  | MAI  | JUN  | JUL  | AOU  | SEP   | OCT  | NOV   | DEC   | ANNEE |
|---|--------|------|-------|-------|------|------|------|------|------|-------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 536  | 0     | 576   | 638  | 676  | 561  | 674  | 668  | 656   | 643  | 653   | 654   | 6935  |
| PRODUCTION D'ENERGIE                    |        |      |       |       |      |      |      |      |      |       |      |       |       |       |
| THERMIQUE                               | GWH    | 1580 | 0     | 1663  | 1849 | 1603 | 1342 | 1728 | 1733 | 1854  | 1892 | 1732  | 1973  | 19148 |
| ELECTRIQUE BRUTE                        | GWH    | 547  | 0     | 565   | 625  | 534  | 438  | 566  | 553  | 617   | 636  | 660   | 681   | 6423  |
| ELECTRIQUE NETTE                        | GWH    | 523  | -10   | 539   | 598  | 507  | 412  | 538  | 525  | 588   | 607  | 632   | 652   | 6109  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 931  |       | 934   | 932  | 921  | 922  | 914  | 905  | 901   | 911  | 930   | 916   | 934   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 590  | 0     | 642   | 707  | 646  | 593  | 743  | 739  | 721   | 708  | 720   | 744   | 7553  |
| TAUX :                                  |        |      |       |       |      |      |      |      |      |       |      |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 79.3 | 0.0   | 86.4  | 98.2 | 86.8 | 82.4 | 99.9 | 99.3 | 100.0 | 95.2 | 100.0 | 100.0 | 86.2  |
| DE DISPONIBILITE EN ENERGIE             | %      | 79.2 | 0.0   | 85.3  | 97.5 | 99.9 | 85.7 | 99.6 | 98.7 | 100.0 | 95.1 | 99.9  | 95.6  | 87.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 20.8 | 100.0 | 14.7  | 2.5  | 0.1  | 14.3 | 0.4  | 1.3  | 0.0   | 4.9  | 0.1   | 3.4   | 12.9  |
| DONT: PROGRAMME                         |        |      | 0.0   | 0.0   | 0.3  | 0.0  | 0.1  | 0.0  | 0.1  | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   |
| HORS PROGRAMME                          |        | %    | 20.8  | 100.0 | 14.7 | 2.2  | 0.1  | 14.2 | 0.4  | 1.2   | 0.0  | 4.9   | 0.1   | 12.9  |
| D'UTILISATION EN ENERGIE                | %      | 77.3 | -     | 79.7  | 91.3 | 74.8 | 63.0 | 79.4 | 77.5 | 89.7  | 89.7 | 96.4  | 94.2  | 76.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.1 | -     | 32.4  | 32.4 | 31.6 | 30.7 | 31.1 | 30.3 | 31.7  | 32.1 | 32.7  | 33.0  | 31.9  |

224

STATION : DAMPIERRE 1

FRANCI

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 15.03.1980 | PUISSANCE MAX. POSSIBLE BRUTE   | 937  | MW |
| DATE DU PREMIER COUPLAGE            | 23.03.1980 | PUISSANCE MAX. POSSIBLE NETTE   | 890  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 10.09.1980 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                    |     | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990 | CUMULEE<br>AU<br>31.12.90 |
|--|-----|---------------------------|-------|-------|-------|-------|-------|-------|------|---------------------------|
| PRODUCTION D'ENERGIE :                             |     |                           |       |       |       |       |       |       |      |                           |
| THERMIQUE  |     | 59370                     | 17395 | 18187 | 16453 | 15240 | 12955 | 20847 | 7087 | 167533                    |
| ELECTRIQUE BRUTE                                   | GWH | 19501                     | 5713  | 6061  | 5466  | 5072  | 4215  | 6847  | 2352 | 56227                     |
| ELECTRIQUE NETTE                                   | GWH | 18331                     | 5386  | 5730  | 5155  | 4777  | 3922  | 6468  | 2155 | 51923                     |
| DUREE DE MARCHÉ DES TURBOGENERATEURS HEURES        |     |                           |       |       |       |       |       |       |      |                           |
|  |     | 23165                     | 6777  | 7223  | 6672  | 6246  | 5239  | 8207  | 3110 | 66639                     |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE HEURES |     |                           |       |       |       |       |       |       |      |                           |
|  |     | 20503                     | 6052  | 6439  | 5790  | 5370  | 4410  | 7271  | 2418 | 58253                     |
| TAUX :   |     |                           |       |       |       |       |       |       |      |                           |
| DE DISPONIBILITE EN ENERGIE                        | X   | 65                        | 75    | 81    | 76    | 66    | 60    | 98    | 34   | 68                        |
| D'UTILISATION EN ENERGIE                           | X   | 62                        | 69    | 74    | 66    | 61    | 50    | 83    | 28   | 62                        |

EXPLOITATION MENSUELLE 1990

|   |     | JAN  | FEV  | MAR   | AVR   | MAI   | JUN   | JUL   | AOU   | SEP  | OCT  | NOV  | DEC  | ANNEE |
|---|-----|------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                    | GWH | 562  | 341  | 0     | 0     | 0     | 0     | 0     | 0     | 217  | 284  | 616  | 624  | 2644  |
| PRODUCTION D'ENERGIE :                      |     |      |      |       |       |       |       |       |       |      |      |      |      |       |
| THERMIQUE                                   | GWH | 1300 | 273  | 0     | 0     | 0     | 0     | 0     | 0     | 735  | 898  | 1925 | 1955 | 7087  |
| ELECTRIQUE BRUTE                            | GWH | 419  | 79   | 0     | 0     | 0     | 0     | 0     | 0     | 234  | 301  | 653  | 666  | 2352  |
| ELECTRIQUE NETTE                            | GWH | 388  | 67   | -0    | -0    | -1    | -6    | -4    | -15   | 205  | 275  | 621  | 632  | 2155  |
| PUISSANCE MAX. ATTEINTE NETTE MW            |     | 737  | 327  |       |       |       |       |       |       | 892  | 891  | 911  | 910  | 911   |
| DUREE DE MARCHÉ DES TURBOGENERATEURS HEURES |     |      |      |       |       |       |       |       |       |      |      |      |      |       |
|   |     | 719  | 218  | 0     | 0     | 0     | 0     | 0     | 0     | 404  | 348  | 695  | 726  | 3110  |
| TAUX :                                      |     |      |      |       |       |       |       |       |       |      |      |      |      |       |
| D'UTILISATION EN TEMPS                      | X   | 96.6 | 32.4 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 56.0 | 46.8 | 94.5 | 97.6 | 35.5  |
| DE DISPONIBILITE EN ENERGIE                 | X   | 85.0 | 57.1 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 33.8 | 43.1 | 94.3 | 94.3 | 33.9  |
| D'INDISPONIBILITE EN ENERGIE                | X   | 15.0 | 42.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 66.2 | 56.9 | 5.7  | 5.7  | 66.1  |
| DONT : PROGRAMME                            |     | 0.0  | 42.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 33.5 | 55.6 | 9.0  | 9.0  | 61.7  |
| HORS PROGRAMME                              | X   | 15.0 | 0.3  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 32.7 | 1.3  | 2.7  | 5.7  | 4.9   |
| D'UTILISATION EN ENERGIE                    | X   | 58.6 | 11.2 | -     | -     | -     | -     | -     | -     | 31.9 | 41.5 | 94.9 | 94.9 | 27.6  |
| DE RENDEMENT THERMIQUE NET                  | X   | 29.8 | 24.6 | -     | -     | -     | -     | -     | -     | 27.9 | 30.6 | 32.2 | 32.3 | 30.4  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 05.12.1980 | PUISSANCE MAX. POSSIBLE BRUTE   | 937  | MW |
| DATE DU PREMIER COUPLAGE            | 10.12.1980 | PUISSANCE MAX. POSSIBLE NETTE   | 890  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 16.02.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                    |     | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|-----|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                             |     |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE  |     | 48541                     | 18357 | 19188 | 17987 | 15561 | 15205 | 17735 | 15715 | 162289                    |
| ELECTRIQUE BRUTE                                   | GWH | 16062                     | 6101  | 6398  | 5988  | 5168  | 4941  | 5793  | 5170  | 57521                     |
| ELECTRIQUE NETTE                                   | GWH | 15155                     | 5778  | 6057  | 5656  | 4843  | 4589  | 5471  | 4855  | 52404                     |
| DUREE DE MARCHÉ DES TURBOGENÉRATEURS HEURES        |     |                           |       |       |       |       |       |       |       |                           |
|  |     | 18612                     | 6884  | 7400  | 6983  | 6387  | 6153  | 6927  | 6292  | 61638                     |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE HEURES |     |                           |       |       |       |       |       |       |       |                           |
|  |     | 16953                     | 6491  | 6807  | 6360  | 5440  | 5156  | 6150  | 5457  | 53514                     |
| TAUX :   |     |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                        | X   | 64                        | 77    | 84    | 82    | 76    | 92    | 77    | 68    | 75                        |
| D'UTILISATION EN ENERGIE                           | X   | 63                        | 74    | 78    | 73    | 62    | 59    | 70    | 62    | 67                        |

## EXPLOITATION MENSUELLE 1990

|   |     | JAN   | FEV  | MAR  | AVR   | MAI  | JUN   | JUL  | AOU   | SEP   | OCT  | NOV   | DEC  | ANNEE |
|---|-----|-------|------|------|-------|------|-------|------|-------|-------|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                    | GWH | 659   | 551  | 519  | 0     | 588  | 639   | 652  | 661   | 640   | 248  | 0     | 122  | 5279  |
| PRODUCTION D'ENERGIE :                      |     |       |      |      |       |      |       |      |       |       |      |       |      |       |
| THERMIQUE                                   | GWH | 1997  | 1750 | 1696 | 1     | 1751 | 1839  | 1876 | 1857  | 1791  | 733  | 0     | 424  | 15715 |
| ELECTRIQUE BRUTE                            | GWH | 665   | 573  | 553  | 0     | 567  | 608   | 617  | 616   | 595   | 242  | 0     | 132  | 5170  |
| ELECTRIQUE NETTE                            | GWH | 631   | 543  | 519  | -9    | 534  | 576   | 584  | 583   | 562   | 226  | -3    | 112  | 4855  |
| PUISSANCE MAX. ATTEINTE NETTE MW            |     | 892   | 871  | 805  |       | 884  | 890   | 869  | 880   | 885   | 890  |       | 978  | 892   |
| DUREE DE MARCHÉ DES TURBOGENÉRATEURS HEURES |     |       |      |      |       |      |       |      |       |       |      |       |      |       |
|   |     | 744   | 671  | 722  | 0     | 730  | 720   | 739  | 744   | 721   | 284  | 0     | 717  | 6292  |
| TAUX :                                      |     |       |      |      |       |      |       |      |       |       |      |       |      |       |
| D'UTILISATION EN TEMPS                      | X   | 100.0 | 99.9 | 97.2 | 0.0   | 98.1 | 100.0 | 99.3 | 100.0 | 100.0 | 38.2 | 0.0   | 17.2 | 71.8  |
| DE DISPONIBILITE EN ENERGIE                 | X   | 99.6  | 92.2 | 78.7 | 0.0   | 88.8 | 99.7  | 98.6 | 99.9  | 99.8  | 37.5 | 0.0   | 18.5 | 67.8  |
| D'INDISPONIBILITE EN ENERGIE                | X   | 0.4   | 7.8  | 21.3 | 100.0 | 11.2 | 0.3   | 1.4  | 0.1   | 0.2   | 62.5 | 100.0 | 81.5 | 32.2  |
| DONT : PROGRAMME                            |     |       |      |      |       |      |       |      |       |       |      |       |      |       |
|   |     | 0.1   | 0.0  | 3.1  | 96.7  | 7.6  | 0.0   | 0.1  | 0.0   | 0.0   | 61.4 | 81.3  | 10.5 | 21.8  |
| HORS PROGRAMME                              |     |       |      |      |       |      |       |      |       |       |      |       |      |       |
|   |     | 0.3   | 7.8  | 18.2 | 3.3   | 3.6  | 0.3   | 1.3  | 0.1   | 0.2   | 1.1  | 19.7  | 71.0 | 10.4  |
| D'UTILISATION EN ENERGIE                    | X   | 95.4  | 90.8 | 78.5 | -     | 80.7 | 89.8  | 88.2 | 88.0  | 87.6  | 34.1 | -     | 14.9 | 62.3  |
| DE RENDEMENT THERMIQUE NET                  | X   | 31.6  | 31.0 | 30.6 | -     | 30.5 | 31.3  | 31.1 | 31.4  | 31.4  | 30.8 | -     | 25.4 | 30.9  |



DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 25.01.1981 | PUISSANCE MAX. POSSIBLE BRUTE   | 937  | MW |
| DATE DU PREMIER COUPLAGE            | 30.01.1981 | PUISSANCE MAX. POSSIBLE NETTE   | 890  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 27.05.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      | 45670                     | 19476 | 20005 | 20825 | 16010 | 16011 | 18809 | 18905 | 17710                     |
| ELECTRIQUE BRUTE                               | GWH 15234                 | 6525  | 6690  | 7081  | 5344  | 5267  | 6246  | 6328  | 5715                      |
| ELECTRIQUE NETTE                               | GWH 14381                 | 6203  | 6358  | 6717  | 5020  | 4962  | 5907  | 5994  | 5542                      |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS        | HEURES 17719              | 7121  | 7523  | 8330  | 6269  | 6435  | 7242  | 7348  | 6787                      |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES 16090              | 6966  | 7148  | 7551  | 5641  | 5578  | 6640  | 6736  | 6351                      |
| TAUX :   |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | X 65                      | 80    | 85    | 100   | 79    | 68    | 78    | 80    | 76                        |
| D'UTILISATION EN ENERGIE                       | X 63                      | 79    | 82    | 86    | 64    | 64    | 76    | 77    | 72                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR   | MAI  | JUN   | JUL  | AOU  | SEP   | OCT   | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|-------|-------|------|-------|------|------|-------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 656   | 597   | 653   | 579   | 352  | 0     | 122  | 653  | 641   | 660   | 640   | 661   | 6214  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |       |      |       |      |      |       |       |       |       |       |
| THERMIQUE                               | GWH    | 2022  | 1792  | 1949  | 1808  | 1141 | 0     | 444  | 1972 | 1851  | 1974  | 1739  | 2012  | 18905 |
| ELECTRIQUE BRUTE                        | GWH    | 688   | 598   | 660   | 610   | 376  | 0     | 132  | 648  | 619   | 666   | 656   | 675   | 6328  |
| ELECTRIQUE NETTE                        | GWH    | 655   | 569   | 628   | 579   | 350  | -1    | 113  | 616  | 588   | 632   | 624   | 642   | 5994  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 904   | 897   | 893   | 859   | 728  |       | 854  | 882  | 893   | 888   | 704   | 702   | 904   |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 743   | 720   | 554  | 0     | 246  | 740  | 721   | 744   | 720   | 744   | 7348  |
| TAUX :                                  |        |       |       |       |       |      |       |      |      |       |       |       |       |       |
| D'UTILISATION EN TEMPS                  | X      | 100.0 | 100.0 | 100.0 | 100.0 | 74.5 | 0.0   | 33.1 | 99.5 | 100.0 | 100.0 | 100.0 | 100.0 | 83.9  |
| DE DISPONIBILITE EN ENERGIE             | X      | 99.3  | 100.0 | 98.8  | 90.4  | 53.4 | 0.0   | 18.6 | 98.7 | 99.9  | 99.7  | 97.9  | 97.9  | 79.8  |
| D'INDISPONIBILITE EN ENERGIE            | X      | 0.7   | 0.0   | 1.2   | 9.6   | 46.6 | 100.0 | 81.4 | 1.3  | 0.1   | 0.3   | 0.1   | 0.1   | 20.2  |
| DONT :                                  |        |       |       |       |       |      |       |      |      |       |       |       |       |       |
| PROGRAMME                               |        | 0.0   | 0.0   | 0.0   | 0.0   | 25.5 | 100.0 | 64.0 | 0.6  | 0.0   | 0.1   | 0.0   | 0.0   | 15.9  |
| HORS PROGRAMME                          | X      | 0.7   | 0.0   | 1.2   | 9.6   | 21.1 | 0.0   | 17.4 | 0.7  | 0.1   | 0.2   | 0.1   | 0.1   | 4.3   |
| D'UTILISATION EN ENERGIE                | X      | 99.0  | 95.1  | 94.9  | 90.4  | 52.8 | -     | 17.1 | 93.0 | 91.6  | 95.5  | 97.4  | 95.9  | 76.9  |
| DE RENDEMENT THERMIQUE NET              | X      | 32.4  | 31.7  | 32.2  | 32.1  | 30.7 | -     | 25.5 | 31.2 | 31.8  | 32.0  | 30.2  | 31.9  | 31.7  |

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 05.08.1981 | PUISSANCE MAX. POSSIBLE BRUT    | 937  | MW |
| DATE DU PREMIER COUPLAGE            | 18.08.1981 | PUISSANCE MAX. POSSIBLE NETT    | 890  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 20.11.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 36722                     | 19823 | 18586 | 20939 | 17509 | 16589 | 17135 | 16712 | 164016                    |
| ELECTRIQUE BRUTE                               | GWH    | 12159                     | 6611  | 6189  | 7006  | 5777  | 5422  | 5698  | 5500  | 57362                     |
| ELECTRIQUE NETTE                               | GWH    | 11473                     | 6267  | 5860  | 6661  | 5450  | 5084  | 5383  | 5153  | 51331                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 14912                     | 7768  | 7387  | 7861  | 6795  | 6645  | 6621  | 6792  | 67781                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 12874                     | 7045  | 6588  | 7481  | 6123  | 5710  | 6044  | 5790  | 57655                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | X      | 69                        | 87    | 79    | 89    | 78    | 80    | 73    | 87    | 78                        |
| D'UTILISATION EN ENERGIE                       | X      | 62                        | 80    | 75    | 85    | 70    | 65    | 69    | 66    | 70                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR   | MAI  | JUN  | JUL  | AOU  | SEP  | OCT  | NOV  | DEC  | ANNEE |
|---|--------|-------|-------|------|-------|------|------|------|------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 661   | 597   | 659  | 632   | 654  | 639  | 651  | 658  | 634  | 524  | 626  | 64   | 6799  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |       |      |      |      |      |      |      |      |      |       |
| THERMIQUE                               | GWH    | 2003  | 1629  | 1686 | 1752  | 1514 | 447  | 1245 | 1546 | 1659 | 1633 | 1737 | 213  | 16712 |
| ELECTRIQUE BRUTE                        | GWH    | 672   | 546   | 560  | 587   | 491  | 132  | 400  | 500  | 548  | 538  | 455  | 70   | 5500  |
| ELECTRIQUE NETTE                        | GWH    | 639   | 517   | 528  | 555   | 458  | 111  | 369  | 468  | 517  | 505  | 425  | 61   | 5153  |
| PUISSANCE MAX. ATEINTE NETTE            | MW     | 903   | 893   | 896  | 903   | 891  | 868  | 891  | 881  | 884  | 838  | 726  | 549  | 903   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 652   | 673  | 720   | 636  | 169  | 496  | 606  | 632  | 654  | 787  | 123  | 6792  |
| TAUX :                                  |        |       |       |      |       |      |      |      |      |      |      |      |      |       |
| D'UTILISATION EN TEMPS                  | X      | 100.0 | 97.0  | 90.6 | 100.0 | 85.5 | 23.5 | 66.7 | 81.5 | 87.7 | 87.9 | 97.4 | 16.5 | 77.5  |
| DE DISPONIBILITE EN ENERGIE             | X      | 100.0 | 100.0 | 99.7 | 98.7  | 98.9 | 99.8 | 98.4 | 99.6 | 98.8 | 79.1 | 64.6 | 9.7  | 87.3  |
| D'INDISPONIBILITE EN ENERGIE            | X      | 0.0   | 0.0   | 0.3  | 1.3   | 1.1  | 0.2  | 1.6  | 0.4  | 1.2  | 20.9 | 33.4 | 59.3 | 12.7  |
| DONT: PROGRAMME<br>HORS PROGRAMME       | X      | 0.0   | 0.0   | 0.1  | 0.0   | 0.1  | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 7.0  | 77.4 | 6.6   |
| D'UTILISATION EN ENERGIE                | X      | 96.5  | 86.5  | 79.8 | 86.6  | 69.2 | 17.3 | 55.8 | 70.7 | 80.6 | 76.3 | 64.3 | 9.2  | 66.1  |
| DE RENDEMENT THERMIQUE NET              | X      | 31.9  | 31.7  | 31.3 | 31.7  | 30.3 | 24.7 | 29.7 | 30.3 | 31.2 | 30.9 | 30.6 | 27.7 | 30.8  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 21.02.1980  
 DATE DU PREMIER COUPLAGE 31.05.1980  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.12.1980

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 955 MW  
 PUISSANCE MAX. POSSIBLE NETTE 915 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 55674                     | 19997 | 19332 | 18459 | 18493 | 18334 | 18587 | 15962 | 186838                    |
| ELECTRIQUE BRUTE                               | GWH    | 19048                     | 6761  | 6509  | 6155  | 6259  | 6119  | 6119  | 5323  | 67293                     |
| ELECTRIQUE NETTE                               | GWH    | 18085                     | 6469  | 6213  | 5880  | 5974  | 5838  | 5830  | 5089  | 57378                     |
| DUREE DE MARCHE<br>DES TURBODERATEURS          | HEURES | 23082                     | 7662  | 7560  | 7188  | 7360  | 7200  | 7550  | 6377  | 73979                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 19685                     | 7071  | 6789  | 6430  | 6526  | 6377  | 6369  | 5563  | 66810                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | X      | 71                        | 87    | 82    | 77    | 78    | 77    | 83    | 65    | 76                        |
| D'UTILISATION EN ENERGIE                       | X      | 63                        | 81    | 78    | 73    | 75    | 73    | 73    | 64    | 70                        |

## EXPLOITATION MENSUELLE 1990

|                                       |        | JAN   | FEV   | MAR   | AVR  | MAI  | JUN  | JUL   | AOU   | SEP   | OCT  | NOV   | DEC   | ANNEE |
|---------------------------------------|--------|-------|-------|-------|------|------|------|-------|-------|-------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE              | GWH    | 676   | 604   | 619   | 487  | 571  | 427  | 0     | 0     | 0     | 492  | 657   | 680   | 5213  |
| PRODUCTION D'ENERGIE                  |        |       |       |       |      |      |      |       |       |       |      |       |       |       |
| THERMIQUE                             | GWH    | 1971  | 1779  | 1878  | 1545 | 1813 | 1410 | 0     | 0     | 0     | 1569 | 1278  | 2219  | 15962 |
| ELECTRIQUE BRUTE                      | GWH    | 677   | 607   | 632   | 507  | 599  | 454  | 0     | 0     | 0     | 506  | 661   | 680   | 5323  |
| ELECTRIQUE NETTE                      | GWH    | 649   | 582   | 604   | 481  | 571  | 427  | -2    | -1    | -5    | 486  | 651   | 658   | 5089  |
| PUISSANCE MAX. ATTEINTE NETTE         | MW     | 909   | 913   | 876   | 895  | 871  | 723  |       |       |       | 901  | 917   | 919   | 919   |
| DUREE DE MARCHE<br>DES TURBODERATEURS | HEURES | 744   | 672   | 743   | 659  | 720  | 699  | 0     | 0     | 0     | 676  | 720   | 744   | 6377  |
| TAUX :                                |        |       |       |       |      |      |      |       |       |       |      |       |       |       |
| D'UTILISATION EN TEMPS                | X      | 100.0 | 100.0 | 100.0 | 91.5 | 96.8 | 97.1 | 0.0   | 0.0   | 0.0   | 90.9 | 100.0 | 100.0 | 72.8  |
| DE DISPONIBILITE EN ENERGIE           | X      | 99.2  | 98.4  | 91.1  | 73.9 | 84.0 | 65.0 | 0.0   | 0.0   | 0.0   | 72.2 | 97.7  | 100.0 | 65.1  |
| D'INDISPONIBILITE EN ENERGIE          | X      | 0.8   | 1.6   | 8.9   | 26.1 | 16.0 | 35.0 | 100.0 | 100.0 | 100.0 | 27.8 | 2.3   | 0.0   | 34.9  |
| DONT: PROGRAMME                       |        | 0.3   | 0.0   | 0.0   | 0.0  | 0.0  | 3.0  | 100.0 | 100.0 | 100.0 | 12.2 | 0.0   | 0.0   | 26.5  |
| HORS PROGRAMME                        | X      | 0.5   | 1.6   | 8.9   | 26.1 | 16.0 | 32.0 | 0.0   | 0.0   | 0.0   | 15.6 | 0.3   | 0.0   | 8.4   |
| D'UTILISATION EN ENERGIE              | X      | 95.4  | 94.7  | 88.9  | 73.1 | 83.9 | 64.8 | -     | -     | -     | 71.3 | 97.2  | 55.7  | 63.5  |
| DE RENDEMENT THERMIQUE NET            | X      | 32.9  | 32.7  | 32.2  | 31.2 | 31.5 | 30.3 | -     | -     | -     | 31.0 | 32.4  | 32.6  | 31.9  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 22.07.1980  
 DATE DU PREMIER COUPLAGE 07.08.1980  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.12.1980

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 955 MW  
 PUISSANCE MAX. POSSIBLE NETTE 915 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |        |                           | 1984                               | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |                                    |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 55514                     | 20241                              | 19331 | 19493 | 16385 | 15564 | 16512 | 17742 | 180782                    |
| ELECTRIQUE BRUTE                               | GWH    | 18385                     | 6900                               | 6545  | 6573  | 5561  | 5140  | 5423  | 5893  | 60420                     |
| ELECTRIQUE NETTE                               | GWH    | 17438                     | 6603                               | 6256  | 6280  | 5291  | 4898  | 5154  | 5612  | 57531                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 23550                     | 7684                               | 7375  | 7631  | 6500  | 6628  | 6650  | 7177  | 71195                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 19013                     | 7212                               | 6833  | 6868  | 5782  | 5349  | 5633  | 6132  | 62821                     |
| TAUX :   |        |                           |                                    |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | X      | 75                        | 87                                 | 79    | 83    | 70    | 73    | 71    | 73    | 76                        |
| D'UTILISATION EN ENERGIE                       | X      | 64                        | 82                                 | 78    | 78    | 66    | 61    | 64    | 70    | 69                        |

## EXPLOITATION MENSUELLE 1990

|   |        | 1990  |      |       |      |       |       |       |      |      |       |       |       | ANNEE |
|---|--------|-------|------|-------|------|-------|-------|-------|------|------|-------|-------|-------|-------|
|   |        | JAN   | FEV  | MAR   | AVR  | MAI   | JUN   | JUL   | AOU  | SEP  | OCT   | NOV   | DEC   |       |
| DISPONIBILITE EN ENERGIE                | GWH    | 506   | 224  | 0     | 258  | 617   | 568   | 600   | 477  | 602  | 658   | 647   | 656   | 5813  |
| PRODUCTION D'ENERGIE                    |        |       |      |       |      |       |       |       |      |      |       |       |       |       |
| THERMIQUE                               | GWH    | 1496  | 729  | 0     | 844  | 1837  | 1811  | 1866  | 1453 | 1877 | 1954  | 1797  | 1980  | 17742 |
| ELECTRIQUE BRUTE                        | GWH    | 491   | 237  | 0     | 270  | 602   | 590   | 608   | 473  | 628  | 671   | 649   | 675   | 5893  |
| ELECTRIQUE NETTE                        | GWH    | 465   | 222  | -2    | 248  | 576   | 563   | 580   | 446  | 602  | 643   | 622   | 647   | 5612  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 706   | 603  |       | 900  | 890   | 892   | 884   | 861  | 877  | 897   | 900   | 903   | 903   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 387  | 0     | 346  | 744   | 720   | 744   | 566  | 718  | 744   | 720   | 744   | 7177  |
| TAUX :                                  |        |       |      |       |      |       |       |       |      |      |       |       |       |       |
| D'UTILISATION EN TEMPS                  | X      | 100.0 | 57.6 | 0.0   | 48.1 | 100.0 | 100.0 | 100.0 | 76.1 | 99.6 | 100.0 | 100.0 | 100.0 | 81.9  |
| DE DISPONIBILITE EN ENERGIE             | X      | 74.3  | 36.5 | 0.0   | 39.2 | 90.7  | 86.3  | 88.1  | 70.1 | 91.2 | 96.7  | 90.2  | 84.4  | 72.5  |
| D'INDISPONIBILITE EN ENERGIE            | X      | 25.7  | 63.5 | 100.0 | 60.8 | 9.3   | 13.7  | 11.9  | 29.9 | 8.8  | 3.3   | 1.8   | 3.6   | 27.5  |
| DONT: PROGRAMME                         |        | 0.0   | 42.6 | 100.0 | 34.7 | 0.2   | 0.0   | 0.0   | 24.4 | 0.0  | 0.1   | 0.0   | 0.0   | 16.7  |
| HORS PROGRAMME                          | X      | 25.7  | 20.9 | 0.0   | 26.1 | 9.1   | 13.7  | 11.9  | 5.5  | 8.8  | 3.2   | 1.8   | 3.6   | 10.8  |
| D'UTILISATION EN ENERGIE                | X      | 68.3  | 36.2 | -     | 37.6 | 84.5  | 85.5  | 85.2  | 65.5 | 91.2 | 94.5  | 94.4  | 95.1  | 70.0  |
| DE RENDEMENT THERMIQUE NET              | X      | 31.1  | 30.5 | -     | 29.3 | 31.3  | 31.1  | 31.1  | 30.7 | 32.1 | 32.9  | 32.8  | 32.7  | 31.6  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 29.11.1980  
 DATE DU PREMIER COUPLAGE 10.02.1981  
 DEBUT DE L'EXPLOITATION COMMERCIALE 11.05.1981

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 955 MW  
 PUISSANCE MAX. POSSIBLE NETTE 915 MW

| DONNEES D'EXPLOITATION ANNUELLE                    |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                             |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE  |        | 50879                     | 20588 | 22150 | 19497 | 17709 | 18017 | 18307 | 20099 | 187245                    |
| ELECTRIQUE BRUTE                                   | GWH    | 17110                     | 6967  | 7477  | 6514  | 5910  | 6005  | 6113  | 6748  | 67844                     |
| ELECTRIQUE NETTE                                   | GWH    | 16317                     | 6683  | 7165  | 6225  | 5645  | 5723  | 5832  | 6455  | 60046                     |
| DUREE DE MARCHÉ DES TURBOGENERATEURS HEURES        |        |                           |       |       |       |       |       |       |       |                           |
| DUREE DE MARCHÉ DES TURBOGENERATEURS               | HEURES | 19970                     | 7668  | 8518  | 7704  | 6810  | 7106  | 7188  | 7671  | 77635                     |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE HEURES |        |                           |       |       |       |       |       |       |       |                           |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE        | HEURES | 17799                     | 7308  | 7831  | 6807  | 6167  | 6254  | 6377  | 7052  | 67595                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                        | X      | 77                        | 86    | 94    | 84    | 75    | 78    | 76    | 85    | 81                        |
| D'UTILISATION EN ENERGIE                           | X      | 70                        | 83    | 89    | 78    | 70    | 71    | 73    | 81    | 76                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR  | MAI   | JUN  | JUL   | AOU   | SEP   | OCT   | NOV   | DEC   | ANNEE |
|---|--------|------|------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                    | GWH    | 663  | 604  | 675   | 526  | 0     | 291  | 676   | 678   | 656   | 673   | 657   | 681   | 6780  |
| PRODUCTION D'ENERGIE                        |        |      |      |       |      |       |      |       |       |       |       |       |       |       |
| THERMIQUE                                   | GWH    | 1986 | 1791 | 1991  | 1633 | 0     | 956  | 1916  | 1952  | 1889  | 2006  | 1754  | 2025  | 20099 |
| ELECTRIQUE BRUTE                            | GWH    | 676  | 609  | 679   | 547  | 0     | 306  | 633   | 645   | 628   | 672   | 666   | 686   | 6748  |
| ELECTRIQUE NETTE                            | GWH    | 648  | 584  | 652   | 521  | -2    | 282  | 607   | 619   | 602   | 645   | 639   | 658   | 6455  |
| PUISSANCE MAX. ATTEINTE NETTE               | MW     | 917  | 915  | 915   | 850  |       | 894  | 895   | 890   | 905   | 914   | 915   | 923   | 923   |
| DUREE DE MARCHÉ DES TURBOGENERATEURS HEURES |        |      |      |       |      |       |      |       |       |       |       |       |       |       |
| DUREE DE MARCHÉ DES TURBOGENERATEURS        | HEURES | 734  | 670  | 743   | 651  | 0     | 456  | 744   | 744   | 721   | 744   | 720   | 744   | 7671  |
| TAUX :                                      |        |      |      |       |      |       |      |       |       |       |       |       |       |       |
| D'UTILISATION EN TEMPS                      | X      | 98.7 | 99.7 | 100.0 | 90.4 | 0.0   | 63.3 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 87.6  |
| DE DISPONIBILITE EN ENERGIE                 | X      | 97.4 | 98.3 | 99.5  | 79.8 | 0.0   | 44.3 | 99.3  | 99.6  | 99.4  | 98.8  | 99.7  | 100.0 | 84.6  |
| D'INDISPONIBILITE EN ENERGIE                | X      | 2.6  | 1.7  | 0.5   | 20.2 | 100.0 | 35.7 | 0.7   | 0.4   | 0.6   | 1.2   | 0.3   | 0.0   | 15.4  |
| DONT : PROGRAMME                            |        |      |      |       |      |       |      |       |       |       |       |       |       |       |
| HORS PROGRAMME                              | X      | 0.1  | 0.1  | 0.0   | 9.8  | 100.0 | 38.5 | 0.0   | 0.1   | 0.0   | 0.1   | 0.0   | 0.0   | 12.5  |
| HORS PROGRAMME                              | X      | 2.5  | 1.6  | 0.5   | 10.4 | 0.0   | 17.2 | 0.7   | 0.3   | 0.6   | 1.1   | 0.3   | 0.0   | 2.9   |
| D'UTILISATION EN ENERGIE                    | X      | 95.1 | 95.1 | 95.9  | 79.1 | -     | 42.9 | 89.1  | 90.9  | 91.3  | 94.7  | 97.0  | 96.7  | 80.5  |
| DE RENDEMENT THERMIQUE NET                  | X      | 32.6 | 32.6 | 32.7  | 31.9 | -     | 29.5 | 31.7  | 31.7  | 31.9  | 32.2  | 32.7  | 32.5  | 32.1  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 31.05.1981 | PUISSANCE MAX. POSSIBLE BRUT    | 955  | MW |
| DATE DU PREMIER COUPLAGE            | 12.06.1981 | PUISSANCE MAX. POSSIBLE NETTE   | 915  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.11.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 | 1984  |       |       |       |       |       |       | 1990   | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|-------|-------|-------|-------|-------|-------|-------|--------|---------------------------|
|  |                           | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  |       |        |                           |
| PRODUCTION D'ENERGIE                           |                           |       |       |       |       |       |       |       |        |                           |
| THERMIQUE                                      | 44041                     | 17333 | 19462 | 18563 | 18150 | 11920 | 18104 | 16666 | 161239 |                           |
| ELECTRIQUE BRUTE                               | GWH 14785                 | 5740  | 6459  | 6149  | 6017  | 3988  | 6010  | 5476  | 51624  |                           |
| ELECTRIQUE NETTE                               | GWH 14099                 | 5446  | 6161  | 5868  | 5730  | 3749  | 5727  | 5200  | 51979  |                           |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES 17274              | 7587  | 7816  | 7538  | 7257  | 4772  | 7335  | 7329  | 66908  |                           |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES 15389              | 5956  | 6736  | 6412  | 6263  | 4093  | 6255  | 5685  | 56790  |                           |
| TAUX   |                           |       |       |       |       |       |       |       |        |                           |
| DE DISPONIBILITE EN ENERGIE                    | X 73                      | 92    | 85    | 82    | 80    | 58    | 80    | 77    | 77     |                           |
| D'UTILISATION EN ENERGIE                       | X 69                      | 68    | 77    | 73    | 72    | 47    | 71    | 65    | 68     |                           |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV  | MAR   | AVR  | MAI   | JUN  | JUL   | AOU   | SEP   | OCT  | NOV   | DEC  | ANNEE |
|---|--------|-------|------|-------|------|-------|------|-------|-------|-------|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 678   | 605  | 679   | 638  | 680   | 514  | 674   | 620   | 486   | 237  | 0     | 391  | 6202  |
| PRODUCTION D'ENERGIE                    |        |       |      |       |      |       |      |       |       |       |      |       |      |       |
| THERMIQUE                               | GWH    | 2000  | 1727 | 1929  | 1840 | 1770  | 867  | 1320  | 1610  | 1583  | 798  | 0     | 1222 | 16666 |
| ELECTRIQUE BRUTE                        | GWH    | 679   | 584  | 653   | 619  | 576   | 264  | 417   | 515   | 513   | 253  | 0     | 404  | 5476  |
| ELECTRIQUE NETTE                        | GWH    | 652   | 560  | 626   | 593  | 549   | 239  | 390   | 488   | 487   | 235  | -1    | 381  | 5200  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 910   | 906  | 917   | 914  | 904   | 895  | 904   | 809   | 770   | 592  |       | 716  | 917   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 670  | 743   | 703  | 744   | 569  | 744   | 744   | 721   | 457  | 0     | 490  | 7329  |
| TAUX                                    |        |       |      |       |      |       |      |       |       |       |      |       |      |       |
| D'UTILISATION EN TEMPS                  | X      | 100.0 | 99.7 | 100.0 | 97.6 | 100.0 | 79.0 | 100.0 | 100.0 | 100.0 | 61.4 | 0.0   | 63.9 | 83.7  |
| DE DISPONIBILITE EN ENERGIE             | X      | 99.6  | 98.4 | 99.9  | 96.9 | 100.0 | 78.1 | 99.0  | 91.2  | 73.8  | 34.8 | 0.0   | 57.5 | 77.4  |
| D'INDISPONIBILITE EN ENERGIE            | X      | 0.4   | 1.6  | 0.1   | 3.1  | 0.0   | 21.9 | 1.0   | 8.8   | 26.2  | 65.2 | 100.0 | 42.5 | 22.6  |
| DONT PROGRAMME                          |        | 0.1   | 0.0  | 0.1   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 38.6 | 100.0 | 12.4 | 12.6  |
| HORS PROGRAMME                          | X      | 0.3   | 1.6  | 0.0   | 3.1  | 0.0   | 21.9 | 1.0   | 8.8   | 26.2  | 26.6 | 0.0   | 30.1 | 10.0  |
| D'UTILISATION EN ENERGIE                | X      | 95.8  | 91.2 | 92.1  | 90.0 | 80.6  | 36.3 | 57.3  | 71.7  | 73.8  | 34.5 | -     | 54.0 | 64.9  |
| DE RENDEMENT THERMIQUE NET              | X      | 32.6  | 32.4 | 32.5  | 32.2 | 31.0  | 27.6 | 29.6  | 30.5  | 30.7  | 29.5 | -     | 31.2 | 31.2  |

222

STATION : ST. LAURENT B1

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 04.01.1981 | PUISSANCE MAX. POSSIBLE BRUTE   | 956  | MW |
| DATE DU PREMIER COUPLAGE            | 21.01.1981 | PUISSANCE MAX. POSSIBLE NETTE   | 915  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.08.1983 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                    |     | CUMULEE  |       |       |       |       |       |       |       | CUMULEE  |
|--|-----|----------|-------|-------|-------|-------|-------|-------|-------|----------|
|  |     | AU       | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | AU       |
|  |     | 31.12.83 |       |       |       |       |       |       |       | 31.12.90 |
| PRODUCTION D'ENERGIE                               |     |          |       |       |       |       |       |       |       |          |
| THERMIQUE  |     | 17188    | 13594 | 17866 | 17666 | 16706 | 17482 | 20428 | 19000 | 137931   |
| ELECTRIQUE BRUTE                                   | GWH | 5493     | 4559  | 5939  | 5799  | 5486  | 6017  | 6969  | 6453  | 47714    |
| ELECTRIQUE NETTE                                   | GWH | 5027     | 4390  | 5624  | 5463  | 5165  | 5706  | 6610  | 6103  | 44087    |
| DUREE DE MARCHE DES TURBOGENERATEURS HEURES        |     |          |       |       |       |       |       |       |       |          |
|  |     | 7480     | 5042  | 6827  | 7144  | 6667  | 6464  | 7699  | 7089  | 54112    |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE HEURES |     |          |       |       |       |       |       |       |       |          |
|  |     | 5702     | 4989  | 6395  | 6211  | 5869  | 6483  | 7227  | 6666  | 47542    |
| TAUX   |     |          |       |       |       |       |       |       |       |          |
| DE DISPONIBILITE EN ENERGIE                        | %   | 25       | 56    | 75    | 80    | 76    | 75    | 83    | 84    | 61       |
| D'UTILISATION EN ENERGIE                           | %   | 22       | 57    | 73    | 71    | 67    | 74    | 83    | 76    | 57       |

| EXPLOITATION MENSUELLE                      |     | 1990  |      |       |      |       |      |      |      |       |      |      |      |       |
|---|-----|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|
|   |     | JAN   | FEV  | MAR   | AVR  | MAI   | JUN  | JUL  | AOU  | SEP   | OCT  | NOV  | DEC  | ANNEE |
| DISPONIBILITE EN ENERGIE                    | GWH | 0     | 373  | 674   | 641  | 668   | 650  | 662  | 536  | 653   | 675  | 563  | 643  | 6738  |
| PRODUCTION D'ENERGIE                        |     |       |      |       |      |       |      |      |      |       |      |      |      |       |
| THERMIQUE                                   | GWH | 3     | 1216 | 2072  | 1946 | 2049  | 1422 | 1874 | 1265 | 1985  | 1821 | 1503 | 1745 | 19000 |
| ELECTRIQUE BRUTE                            | GWH | 0     | 396  | 707   | 672  | 699   | 472  | 632  | 416  | 674   | 621  | 555  | 610  | 6453  |
| ELECTRIQUE NETTE                            | GWH | -9    | 370  | 676   | 642  | 667   | 442  | 600  | 387  | 644   | 590  | 521  | 576  | 6103  |
| PUISSANCE MAX. ATTEINTE NETTE               | MW  |       | 907  | 928   | 922  | 914   | 914  | 906  | 908  | 917   | 931  | 939  | 904  | 939   |
| DUREE DE MARCHE DES TURBOGENERATEURS HEURES |     |       |      |       |      |       |      |      |      |       |      |      |      |       |
|   |     | 0     | 548  | 743   | 711  | 744   | 514  | 718  | 470  | 721   | 661  | 585  | 674  | 7089  |
| TAUX  |     |       |      |       |      |       |      |      |      |       |      |      |      |       |
| D'UTILISATION EN TEMPS                      | %   | 0.0   | 81.5 | 100.0 | 98.8 | 100.0 | 71.4 | 96.5 | 63.2 | 100.0 | 88.8 | 81.3 | 70.6 | 80.9  |
| DE DISPONIBILITE EN ENERGIE                 | %   | 0.0   | 60.7 | 99.2  | 97.4 | 98.2  | 98.7 | 97.2 | 78.9 | 99.0  | 99.2 | 87.5 | 59.5 | 84.1  |
| D'INDISPONIBILITE EN ENERGIE                | %   | 100.0 | 39.3 | 0.8   | 2.6  | 1.8   | 1.3  | 2.8  | 21.1 | 1.0   | 0.8  | 14.5 | 5.5  | 15.9  |
| DONT PROGRAMME                              |     | 67.7  | 5.7  | 0.1   | 0.2  | 0.1   | 0.1  | 0.1  | 0.1  | 0.1   | 0.0  | 0.0  | 9.1  | 6.3   |
| HORS PROGRAMME                              | %   | 32.3  | 33.6 | 0.7   | 2.4  | 1.7   | 1.2  | 2.7  | 21.0 | 0.9   | 0.8  | 14.5 | 5.4  | 9.6   |
| D'UTILISATION EN ENERGIE                    | %   | -     | 60.1 | 99.4  | 97.4 | 98.0  | 67.1 | 88.1 | 56.8 | 97.6  | 86.6 | 77.1 | 64.6 | 76.1  |
| DE RENDEMENT THERMIQUE NET                  | %   | -     | 30.4 | 32.6  | 33.0 | 32.6  | 31.1 | 32.0 | 30.6 | 32.4  | 32.4 | 32.5 | 33.0 | 32.1  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 12.05.1981  
 DATE DU PREMIER COUPLAGE 01.06.1981  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.08.1983

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 956 MW  
 PUISSANCE MAX. POSSIBLE NETTE 915 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 19665                     | 18109 | 17222 | 18366 | 16696 | 16660 | 16586 | 16590 | 137894                    |
| ELECTRIQUE BRUTE                               | GWH    | 6459                      | 6001  | 5600  | 5993  | 5380  | 5405  | 5365  | 5469  | 47672                     |
| ELECTRIQUE NETTE                               | GWH    | 6019                      | 5724  | 5296  | 5663  | 5055  | 5105  | 5029  | 5154  | 43044                     |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS        | HEURES | 8633                      | 7237  | 6806  | 7336  | 6798  | 6262  | 6490  | 6212  | 57774                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 6840                      | 6509  | 6018  | 6439  | 5747  | 5797  | 5712  | 5633  | 47694                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | X      | 30                        | 89    | 76    | 80    | 79    | 70    | 76    | 71    | 65                        |
| D'UTILISATION EN ENERGIE                       | X      | 30                        | 74    | 69    | 74    | 66    | 66    | 65    | 64    | 58                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV  | MAR  | AVR  | MAI  | JUN  | JUL  | AOU   | SEP   | OCT  | NOV   | DEC   | ANNEE |
|---|--------|-------|------|------|------|------|------|------|-------|-------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 663   | 540  | 509  | 623  | 340  | 646  | 665  | 623   | 622   | 482  | 0     | 0     | 5713  |
| PRODUCTION D'ENERGIE                    |        |       |      |      |      |      |      |      |       |       |      |       |       |       |
| THERMIQUE                               | GWH    | 2080  | 1712 | 1544 | 1929 | 668  | 1401 | 1852 | 1926  | 1942  | 1537 | 0     | 0     | 16590 |
| ELECTRIQUE BRUTE                        | GWH    | 697   | 567  | 511  | 634  | 215  | 461  | 607  | 622   | 644   | 510  | 0     | 0     | 5469  |
| ELECTRIQUE NETTE                        | GWH    | 663   | 538  | 479  | 603  | 193  | 431  | 576  | 590   | 613   | 480  | -3    | -7    | 5154  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 906   | 904  | 899  | 889  | 888  | 908  | 894  | 885   | 894   | 839  |       |       | 908   |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS | HEURES | 744   | 614  | 583  | 700  | 260  | 514  | 708  | 744   | 721   | 624  | 0     | 0     | 6212  |
| TAUX :                                  |        |       |      |      |      |      |      |      |       |       |      |       |       |       |
| D'UTILISATION EN TEMPS                  | X      | 100.0 | 91.4 | 78.5 | 97.2 | 34.9 | 71.4 | 95.2 | 100.0 | 100.0 | 83.9 | 0.0   | 0.0   | 70.9  |
| DE DISPONIBILITE EN ENERGIE             | X      | 97.4  | 87.8 | 74.9 | 94.6 | 49.9 | 98.1 | 97.7 | 91.6  | 94.2  | 70.8 | 0.0   | 0.0   | 71.3  |
| D'INDISPONIBILITE EN ENERGIE            | X      | 2.6   | 12.2 | 25.1 | 5.4  | 50.1 | 1.9  | 2.3  | 8.4   | 5.8   | 29.2 | 100.0 | 100.0 | 28.7  |
| DONT : PROGRAMME                        |        | 0.1   | 0.2  | 0.1  | 0.1  | 2.3  | 0.0  | 0.1  | 0.4   | 0.3   | 16.7 | 100.0 | 100.0 | 12.4  |
| HORS PROGRAMME                          | X      | 2.5   | 12.0 | 25.0 | 5.3  | 47.8 | 1.9  | 2.2  | 8.0   | 5.5   | 12.5 | 0.0   | 71.0  | 16.3  |
| D'UTILISATION EN ENERGIE                | X      | 97.4  | 87.4 | 70.4 | 91.6 | 28.4 | 65.5 | 84.6 | 86.7  | 92.8  | 70.5 | -     | -     | 64.3  |
| DE RENDEMENT THERMIQUE NET              | X      | 31.9  | 31.4 | 31.0 | 31.3 | 28.9 | 30.8 | 31.1 | 30.6  | 31.5  | 31.2 | -     | -     | 31.1  |



## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 20.05.1981 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE            | 12.06.1981 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.12.1981 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 35302                     | 19908 | 19067 | 19820 | 17284 | 17785 | 19153 | 17806 | 166124                    |
| ELECTRIQUE BRUTE                               | GWH    | 11873                     | 6825  | 6530  | 6787  | 5893  | 6048  | 6535  | 6107  | 56598                     |
| ELECTRIQUE NETTE                               | GWH    | 11156                     | 6504  | 6219  | 6461  | 5588  | 5731  | 6216  | 5815  | 53689                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 14377                     | 7536  | 7348  | 7754  | 6793  | 7069  | 7419  | 6834  | 65130                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 12240                     | 7150  | 6833  | 7096  | 6141  | 6298  | 6833  | 6386  | 57976                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 58                        | 85    | 83    | 87    | 76    | 81    | 83    | 77    | 76                        |
| D'UTILISATION EN ENERGIE                       | %      | 55                        | 81    | 78    | 81    | 70    | 72    | 78    | 73    | 70                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR   | AVR   | MAI  | JUN   | JUL   | AOU   | SEP  | OCT   | NOV  | DEC   | ANNEE |
|---|--------|------|-------|-------|-------|------|-------|-------|-------|------|-------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 643  | 611   | 675   | 652   | 642  | 654   | 675   | 660   | 0    | 0     | 236  | 676   | 6124  |
| PRDUCTION D'ENERGIE                     |        |      |       |       |       |      |       |       |       |      |       |      |       |       |
| THERMIQUE                               | GWH    | 1890 | 1795  | 1953  | 1915  | 1740 | 1854  | 1917  | 1993  | 2    | 0     | 740  | 2006  | 17806 |
| ELECTRIQUE BRUTE                        | GWH    | 656  | 622   | 675   | 662   | 591  | 629   | 651   | 675   | 0    | 0     | 250  | 698   | 6107  |
| ELECTRIQUE NETTE                        | GWH    | 627  | 595   | 645   | 633   | 561  | 600   | 621   | 645   | -3   | -3    | 227  | 669   | 5815  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 925  | 928   | 926   | 928   | 914  | 915   | 896   | 902   | 862  |       | 733  | 931   | 933   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 712  | 672   | 743   | 720   | 717  | 720   | 744   | 744   | 1    | 0     | 317  | 744   | 6834  |
| TAUX :                                  |        |      |       |       |       |      |       |       |       |      |       |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 95.7 | 100.0 | 100.0 | 100.0 | 96.4 | 100.0 | 100.0 | 100.0 | 0.1  | 0.0   | 44.0 | 100.0 | 78.0  |
| DE DISPONIBILITE EN ENERGIE             | %      | 95.0 | 99.9  | 100.0 | 99.6  | 94.9 | 100.0 | 99.7  | 97.6  | 0.1  | 0.0   | 36.1 | 99.9  | 76.9  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 5.0  | 0.1   | 0.0   | 0.4   | 5.1  | 0.0   | 0.3   | 2.4   | 99.9 | 100.0 | 63.9 | 0.1   | 23.1  |
| DONT: PROGRAMME                         |        | 0.0  | 0.1   | 0.0   | 0.0   | 0.0  | 0.0   | 0.1   | 0.0   | 99.9 | 100.0 | 21.0 | 0.0   | 18.5  |
| HORS PROGRAMME                          | %      | 5.0  | 0.0   | 0.0   | 0.4   | 5.1  | 0.0   | 0.2   | 2.4   | 0.0  | 0.0   | 42.9 | 0.1   | 4.6   |
| D'UTILISATION EN ENERGIE                | %      | 92.7 | 97.4  | 95.3  | 96.5  | 82.9 | 91.5  | 91.7  | 95.3  | -    | -     | 34.7 | 94.8  | 72.9  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.2 | 33.2  | 33.0  | 33.0  | 32.3 | 32.3  | 32.4  | 32.4  | -    | -     | 30.7 | 33.3  | 32.7  |

STATION : BLAYAIS 2

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|  |            |                                 |      |    |
|--|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                               | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE                     | 28.06.1982 | PUISSANCE MAX. POSSIBLE BRUTE   | 951  | MW |
| DATE DU PREMIER COUPLAGE                       | 17.07.1982 | PUISSANCE MAX. POSSIBLE NETTE   | 910  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE 01.02.1983 |            |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                       |     | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|---|-----|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                                |     |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE   |     | 21092                     | 20081 | 20675 | 18418 | 18412 | 13303 | 17234 | 17728 | 146943                    |
| ELECTRIQUE BRUTE                                      | GWH | 7148                      | 6926  | 7145  | 6348  | 6303  | 4484  | 5850  | 5981  | 50185                     |
| ELECTRIQUE NETTE                                      | GWH | 6747                      | 6605  | 6819  | 6041  | 5991  | 4163  | 5560  | 5656  | 47582                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS HEURES        |     |                           |       |       |       |       |       |       |       |                           |
|   |     | 8386                      | 7715  | 7937  | 7142  | 7218  | 5718  | 6720  | 7381  | 56217                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE HEURES |     |                           |       |       |       |       |       |       |       |                           |
|   |     | 7417                      | 7256  | 7490  | 6640  | 6588  | 4576  | 6106  | 6220  | 52292                     |
| TAUX :  |     |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                           | %   | 59                        | 87    | 90    | 83    | 84    | 91    | 73    | 86    | 80                        |
| D'UTILISATION EN ENERGIE                              | %   | 58                        | 83    | 86    | 76    | 75    | 52    | 70    | 71    | 71                        |

EXPLOITATION MENSUELLE 1990

|  |     | JAN   | FEV  | MAR  | AVR  | MAI  | JUN  | JUL  | AOU  | SEP  | OCT   | NOV   | DEC  | ANNEE |
|--|-----|-------|------|------|------|------|------|------|------|------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                       | GWH | 672   | 495  | 148  | 288  | 661  | 646  | 606  | 670  | 651  | 674   | 654   | 661  | 6826  |
| PRODUCTION D'ENERGIE                           |     |       |      |      |      |      |      |      |      |      |       |       |      |       |
| THERMIQUE                                      | GWH | 2009  | 1524 | 469  | 862  | 1412 | 1576 | 1425 | 1118 | 1652 | 1834  | 1878  | 1770 | 17728 |
| ELECTRIQUE BRUTE                               | GWH | 693   | 522  | 158  | 292  | 471  | 528  | 478  | 368  | 550  | 612   | 635   | 676  | 5981  |
| ELECTRIQUE NETTE                               | GWH | 661   | 494  | 146  | 271  | 443  | 501  | 450  | 340  | 520  | 581   | 605   | 644  | 5656  |
| PUISSANCE MAX. ATTEINTE NETTE MW               |     | 921   | 865  | 727  | 919  | 913  | 912  | 903  | 841  | 901  | 911   | 920   | 922  | 922   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS HEURES |     |       |      |      |      |      |      |      |      |      |       |       |      |       |
|  |     | 744   | 630  | 218  | 353  | 689  | 714  | 601  | 542  | 696  | 744   | 720   | 730  | 7381  |
| TAUX :   |     |       |      |      |      |      |      |      |      |      |       |       |      |       |
| D'UTILISATION EN TEMPS                         | %   | 100.0 | 93.8 | 29.3 | 49.0 | 92.6 | 99.2 | 80.8 | 72.8 | 96.5 | 100.0 | 100.0 | 98.1 | 84.3  |
| DE DISPONIBILITE EN ENERGIE                    | %   | 99.4  | 80.9 | 22.0 | 44.1 | 97.7 | 98.8 | 89.6 | 99.1 | 99.3 | 99.7  | 99.9  | 97.7 | 85.8  |
| D'INDISPONIBILITE EN ENERGIE                   | %   | 0.6   | 19.1 | 78.0 | 55.9 | 2.3  | 1.2  | 10.4 | 0.9  | 0.7  | 0.3   | 0.1   | 2.3  | 14.2  |
| DONT : PROGRAMME                               |     |       |      |      |      |      |      |      |      |      |       |       |      |       |
| HORS PROGRAMME                                 | %   | 0.6   | 19.1 | 7.3  | 1.0  | 2.2  | 1.2  | 10.4 | 0.9  | 0.6  | 0.3   | 0.0   | 2.3  | 3.7   |
| D'UTILISATION EN ENERGIE                       | %   | 97.6  | 80.7 | 21.6 | 41.4 | 65.5 | 76.4 | 66.5 | 50.2 | 79.3 | 85.9  | 92.4  | 95.1 | 71.0  |
| DE RENDEMENT THERMIQUE NET                     | %   | 32.9  | 32.4 | 31.1 | 31.4 | 31.4 | 31.8 | 31.6 | 30.4 | 31.5 | 31.7  | 32.2  | 32.7 | 31.9  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 29.07.1983  
 DATE DU PREMIER COUPLAGE 17.08.1983  
 DEBUT DE L'EXPLOITATION COMMERCIALE 14.11.1983

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 951 MW  
 PUISSANCE MAX. POSSIBLE NETTE 910 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 6098                      | 18330 | 20171 | 20109 | 13414 | 16458 | 18750 | 14814 | 128143                    |
| ELECTRIQUE BRUTE                               | GWH    | 2030                      | 6232  | 6895  | 6831  | 4600  | 5600  | 6393  | 5113  | 43693                     |
| ELECTRIQUE NETTE                               | GWH    | 1912                      | 5941  | 6569  | 6505  | 4307  | 5282  | 6081  | 4848  | 41444                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 2719                      | 7055  | 7729  | 7759  | 5473  | 6708  | 7292  | 5673  | 50408                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 2102                      | 6527  | 7218  | 7148  | 4730  | 5806  | 6684  | 5326  | 43542                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 65                        | 80    | 87    | 88    | 94    | 82    | 79    | 63    | 81                        |
| D'UTILISATION EN ENERGIE                       | %      | 64                        | 74    | 82    | 82    | 54    | 66    | 76    | 61    | 70                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR  | AVR  | MAI  | JUN   | JUL   | AOU   | SEP  | OCT   | NOV   | DEC   | ANNEE |
|---|--------|------|------|------|------|------|-------|-------|-------|------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 672  | 594  | 636  | 538  | 65   | 0     | 0     | 0     | 495  | 674   | 652   | 676   | 5002  |
| PRODUCTION D'ENERGIE                    |        |      |      |      |      |      |       |       |       |      |       |       |       |       |
| THERMIQUE                               | GWH    | 1989 | 1730 | 1896 | 1645 | 205  | 0     | 0     | 4     | 1478 | 1957  | 1909  | 2001  | 14814 |
| ELECTRIQUE BRUTE                        | GWH    | 693  | 604  | 660  | 567  | 69   | 0     | 0     | 0     | 496  | 672   | 659   | 693   | 5113  |
| ELECTRIQUE NETTE                        | GWH    | 662  | 576  | 629  | 538  | 62   | -0    | -10   | -10   | 469  | 642   | 630   | 662   | 4848  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 931  | 932  | 929  | 861  | 691  |       |       |       | 905  | 920   | 922   | 925   | 932   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 741  | 652  | 707  | 688  | 97   | 0     | 0     | 0     | 580  | 744   | 720   | 744   | 5673  |
| TAUX :                                  |        |      |      |      |      |      |       |       |       |      |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 99.6 | 97.0 | 95.2 | 95.6 | 13.0 | 0.0   | 0.0   | 0.0   | 80.4 | 100.0 | 100.0 | 100.0 | 64.8  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.4 | 97.1 | 94.1 | 82.3 | 9.7  | 0.0   | 0.0   | 0.0   | 75.5 | 99.7  | 97.5  | 100.0 | 62.8  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.6  | 2.9  | 5.9  | 17.7 | 90.3 | 100.0 | 100.0 | 100.0 | 24.5 | 0.3   | 0.5   | 0.0   | 37.2  |
| DOHT: PROGRAMME                         |        | 0.1  | 0.0  | 0.0  | 0.0  | 86.9 | 100.0 | 71.0  | 0.0   | 4.2  | 0.0   | 0.0   | 0.0   | 22.0  |
| HORS PROGRAMME                          | %      | 0.5  | 2.9  | 5.9  | 17.7 | 3.4  | 0.0   | 29.0  | 100.0 | 20.3 | 0.3   | 0.5   | 0.0   | 15.2  |
| D'UTILISATION EN ENERGIE                | %      | 97.8 | 94.2 | 93.1 | 82.1 | 9.2  | -     | -     | -     | 71.4 | 94.9  | 96.2  | 97.8  | 60.8  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.3 | 33.3 | 33.2 | 32.7 | 30.4 | -     | -     | -     | 31.7 | 32.8  | 33.0  | 33.1  | 32.7  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 01.05.1983  
 DATE DU PREMIER COUPLAGE 16.05.1983  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.10.1983

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 951 MW  
 PUISSANCE MAX. POSSIBLE NETTE 910 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 |       |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |        |                           | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 10540                     | 18293 | 18467 | 19329 | 18745 | 13523 | 18113 | 18259 | 135269                    |
| ELECTRIQUE BRUTE                               | GWH    | 3541                      | 6288  | 6271  | 6575  | 6412  | 4594  | 6131  | 6227  | 44038                     |
| ELECTRIQUE NETTE                               | GWH    | 3348                      | 6009  | 5973  | 6276  | 6103  | 4330  | 5807  | 5910  | 43756                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 4412                      | 6780  | 7024  | 7412  | 7347  | 5662  | 7250  | 7347  | 53234                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 3677                      | 6606  | 6561  | 6894  | 6710  | 4761  | 6377  | 6491  | 44078                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 67                        | 76    | 79    | 82    | 84    | 70    | 88    | 78    | 78                        |
| D'UTILISATION EN ENERGIE                       | %      | 67                        | 75    | 75    | 79    | 77    | 54    | 73    | 74    | 72                        |

## EXPLOITATION MENSUELLE 1990

|   |        | 1990 |       |      |      |       |      |       |      |       |       |       |       | ANNEE |
|---|--------|------|-------|------|------|-------|------|-------|------|-------|-------|-------|-------|-------|
|   |        | JAN  | FEV   | MAR  | AVR  | MAI   | JUN  | JUL   | AOU  | SEP   | OCT   | NOV   | DEC   |       |
| DISPONIBILITE EN ENERGIE                | GWH    | 375  | 0     | 301  | 645  | 677   | 476  | 676   | 630  | 655   | 677   | 614   | 501   | 6227  |
| PRODUCTION D'ENERGIE                    |        |      |       |      |      |       |      |       |      |       |       |       |       |       |
| THERMIQUE                               | GWH    | 1190 | 0     | 910  | 1864 | 1934  | 1403 | 1963  | 1805 | 1860  | 1936  | 1840  | 1553  | 18259 |
| ELECTRIQUE BRUTE                        | GWH    | 401  | 0     | 313  | 644  | 663   | 478  | 660   | 610  | 630   | 666   | 631   | 532   | 6227  |
| ELECTRIQUE NETTE                        | GWH    | 374  | -1    | 290  | 615  | 633   | 453  | 630   | 580  | 601   | 635   | 601   | 501   | 5910  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 709  |       | 919  | 923  | 921   | 910  | 895   | 895  | 909   | 915   | 891   | 777   | 923   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 625  | 0     | 362  | 714  | 744   | 529  | 744   | 700  | 721   | 744   | 720   | 744   | 7347  |
| TAUX :                                  |        |      |       |      |      |       |      |       |      |       |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 84.0 | 0.0   | 48.7 | 99.2 | 100.0 | 73.5 | 100.0 | 94.1 | 100.0 | 100.0 | 100.0 | 100.0 | 83.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 55.5 | 0.0   | 44.7 | 98.5 | 100.0 | 72.8 | 99.9  | 93.1 | 99.9  | 100.0 | 93.7  | 74.1  | 78.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 44.5 | 100.0 | 55.3 | 1.5  | 0.0   | 27.2 | 0.1   | 6.9  | 0.1   | 0.0   | 6.3   | 25.9  | 21.8  |
| DONT: PROGRAMME                         |        | 15.9 | 100.0 | 16.9 | 0.0  | 0.0   | 27.0 | 0.0   | 0.1  | 0.0   | 0.0   | 0.0   | 0.0   | 12.7  |
| HORS PROGRAMME                          | %      | 28.6 | 0.0   | 38.4 | 1.5  | 0.0   | 0.2  | 0.1   | 6.8  | 0.1   | 0.0   | 6.3   | 25.9  | 9.1   |
| D'UTILISATION EN ENERGIE                | %      | 55.2 | -     | 42.9 | 93.8 | 93.4  | 69.1 | 93.1  | 85.7 | 91.5  | 93.8  | 91.7  | 74.1  | 74.1  |
| DE RENDEMENT THERMIQUE NET              | %      | 31.4 | -     | 31.9 | 33.0 | 32.7  | 32.3 | 32.1  | 32.1 | 32.3  | 32.8  | 32.6  | 32.3  | 32.4  |

STATION : CHINON B1

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 28.10.1982 | PUISSANCE MAX. POSSIBLE BRUTE   | 919  | MW |
| DATE DU PREMIER COUPLAGE            | 30.11.1982 | PUISSANCE MAX. POSSIBLE NETTE   | 870  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.02.1984 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 13281                     | 14643 | 18889 | 19716 | 16017 | 17317 | 15107 | 18603 | 133573                    |
| ELECTRIQUE BRUTE                               | GWH    | 4232                      | 4840  | 6326  | 6677  | 5245  | 5651  | 5011  | 6259  | 41241                     |
| ELECTRIQUE NETTE                               | GWH    | 3871                      | 4557  | 5979  | 6318  | 4908  | 5274  | 4718  | 5911  | 41535                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 6497                      | 5570  | 7402  | 7610  | 6438  | 7195  | 5724  | 7043  | 53479                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 4450                      | 5235  | 6877  | 7262  | 5641  | 6061  | 5422  | 6798  | 47747                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 47                        | 61    | 82    | 86    | 73    | 96    | 64    | 79    | 73                        |
| D'UTILISATION EN ENERGIE                       | %      | 47                        | 60    | 79    | 83    | 64    | 69    | 62    | 78    | 67                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR   | MAI  | JUN   | JUL  | AOU  | SEP  | OCT   | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|-------|-------|------|-------|------|------|------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 646   | 584   | 644   | 619   | 217  | 0     | 305  | 589  | 536  | 646   | 607   | 629   | 6022  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |       |      |       |      |      |      |       |       |       |       |
| THERMIQUE                               | GWH    | 2001  | 1794  | 1968  | 1913  | 686  | 0     | 973  | 1640 | 1604 | 2071  | 1944  | 2009  | 18603 |
| ELECTRIQUE BRUTE                        | GWH    | 669   | 589   | 650   | 643   | 230  | 0     | 320  | 546  | 542  | 704   | 669   | 696   | 6259  |
| ELECTRIQUE NETTE                        | GWH    | 634   | 558   | 615   | 609   | 215  | -1    | 294  | 513  | 509  | 669   | 635   | 661   | 5911  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 903   | 882   | 897   | 913   | 869  |       | 909  | 898  | 914  | 922   | 728   | 958   | 958   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 743   | 720   | 266  | 0     | 404  | 704  | 619  | 744   | 702   | 725   | 7043  |
| TAUX :                                  |        |       |       |       |       |      |       |      |      |      |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 100.0 | 100.0 | 35.8 | 0.0   | 54.3 | 94.6 | 85.9 | 100.0 | 97.5  | 97.4  | 80.4  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.9  | 100.0 | 99.7  | 99.0  | 33.7 | 0.0   | 47.2 | 91.2 | 85.5 | 100.0 | 97.1  | 97.4  | 79.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.1   | 0.0   | 0.3   | 1.0   | 66.3 | 100.0 | 52.8 | 8.8  | 14.5 | 0.0   | 2.9   | 2.6   | 20.9  |
| DONT: PROGRAMME                         | %      | 0.1   | 0.0   | 0.1   | 0.2   | 64.7 | 80.0  | 6.2  | 0.4  | 0.0  | 0.0   | 0.0   | 0.0   | 12.7  |
| HORS PROGRAMME                          | %      | 0.0   | 0.0   | 0.2   | 0.8   | 1.6  | 20.0  | 46.6 | 8.4  | 14.5 | 0.0   | 2.9   | 2.6   | 8.2   |
| D'UTILISATION EN ENERGIE                | %      | 98.0  | 95.5  | 95.2  | 97.2  | 33.2 | -     | 45.5 | 79.2 | 81.2 | 103.4 | 101.3 | 102.1 | 77.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 31.7  | 31.1  | 31.3  | 31.8  | 31.3 | -     | 30.2 | 31.3 | 31.8 | 32.3  | 32.7  | 32.9  | 31.8  |

STATION : CHINON B2

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 23.09.1983 | PUISSANCE MAX. POSSIBLE BRUTE   | 919  | MW |
| DATE DU PREMIER COUPLAGE            | 29.11.1983 | PUISSANCE MAX. POSSIBLE NETTE   | 870  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.08.1984 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 395                       | 17636 | 15964 | 19957 | 17910 | 14396 | 19470 | 16869 | 122597                    |
| ELECTRIQUE BRUTE                               | GWH    | 28                        | 5737  | 5331  | 6573  | 5965  | 4710  | 6424  | 5561  | 40330                     |
| ELECTRIQUE NETTE                               | GWH    | 1                         | 5394  | 5032  | 6216  | 5620  | 4398  | 6043  | 5213  | 37917                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 212                       | 7226  | 6201  | 7640  | 7171  | 5731  | 7873  | 6714  | 43768                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 1                         | 6202  | 5782  | 7148  | 6456  | 5051  | 6947  | 5992  | 43577                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 27                        | 82    | 68    | 86    | 81    | 67    | 91    | 84    | 79                        |
| D'UTILISATION EN ENERGIE                       | %      | 0                         | 71    | 66    | 82    | 74    | 58    | 79    | 68    | 70                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV  | MAR  | AVR   | MAI  | JUN  | JUL  | AOU  | SEP  | OCT   | NOV  | DEC   | ANNEE |
|---|--------|-------|------|------|-------|------|------|------|------|------|-------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 0     | 234  | 579  | 623   | 591  | 625  | 644  | 643  | 600  | 644   | 574  | 646   | 6403  |
| PRODUCTION D'ENERGIE                    |        |       |      |      |       |      |      |      |      |      |       |      |       |       |
| THERMIQUE                               | GWH    | 0     | 770  | 1758 | 1891  | 1350 | 1652 | 1274 | 1323 | 1648 | 1922  | 1747 | 1533  | 16869 |
| ELECTRIQUE BRUTE                        | GWH    | 0     | 251  | 588  | 629   | 432  | 542  | 407  | 428  | 541  | 636   | 585  | 521   | 5561  |
| ELECTRIQUE NETTE                        | GWH    | -3    | 227  | 555  | 597   | 401  | 509  | 375  | 397  | 509  | 603   | 553  | 491   | 5213  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     |       | 891  | 905  | 912   | 886  | 879  | 883  | 887  | 899  | 891   | 721  | 906   | 921   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 0     | 339  | 676  | 720   | 573  | 668  | 550  | 539  | 675  | 744   | 665  | 565   | 6714  |
| TAUX :                                  |        |       |      |      |       |      |      |      |      |      |       |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 0.0   | 50.4 | 91.0 | 100.0 | 77.0 | 92.8 | 73.9 | 72.4 | 93.6 | 100.0 | 92.4 | 75.9  | 76.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 0.0   | 40.0 | 89.8 | 99.6  | 91.4 | 99.9 | 99.6 | 99.4 | 95.7 | 99.6  | 91.9 | 100.0 | 84.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 100.0 | 60.0 | 10.2 | 0.4   | 8.6  | 0.1  | 0.4  | 0.6  | 4.3  | 0.4   | 8.1  | 0.0   | 15.8  |
| DONT: PROGRAMME                         |        | 90.3  | 9.6  | 0.1  | 0.0   | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.1   | 0.0  | 0.0   | 8.4   |
| HORS PROGRAMME                          | %      | 9.7   | 50.4 | 10.1 | 0.4   | 8.6  | 0.1  | 0.4  | 0.5  | 4.3  | 0.3   | 8.1  | 0.0   | 7.4   |
| D'UTILISATION EN ENERGIE                | %      | ~     | 38.9 | 85.9 | 95.3  | 61.9 | 81.3 | 57.9 | 61.3 | 81.1 | 93.2  | 80.3 | 75.8  | 68.4  |
| DE RENDEMENT THERMIQUE NET              | %      | ~     | 29.5 | 31.6 | 31.6  | 29.7 | 30.8 | 29.4 | 30.0 | 30.9 | 31.4  | 31.7 | 32.0  | 30.9  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 18.09.1986  
 DATE DU PREMIER COUPLAGE 20.10.1986  
 DEBUT DE L'EXPLOITATION COMMERCIALE 04.03.1987

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 954 MW  
 PUISSANCE MAX. POSSIBLE NETTE 905 MW

| DONNEES D'EXPLOITATION ANNUELLE                |  | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--|---------------------------|------|------|------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |  |                           |      |      |      |       |       |       |       |                           |
| THERMIQUE                                      |  |                           |      |      | 2215 | 13649 | 14007 | 15788 | 16706 | 62365                     |
| ELECTRIQUE BRUTE                               |  | GWH                       |      |      | 666  | 4435  | 4674  | 5338  | 5715  | 20829                     |
| ELECTRIQUE NETTE                               |  | GWH                       |      |      | 597  | 4115  | 4397  | 5008  | 5410  | 17526                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |  | HEURES                    |      |      | 1190 | 5312  | 5354  | 6125  | 6274  | 21255                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |  | HEURES                    |      |      | 686  | 4730  | 5051  | 5536  | 5974  | 21978                     |
| TAUX :   |  |                           |      |      |      |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |  | %                         |      |      | 39   | 67    | 57    | 78    | 69    | 66                        |
| D'UTILISATION EN ENERGIE                       |  | %                         |      |      | 40   | 54    | 58    | 63    | 68    | 60                        |

## EXPLOITATION MENSUELLE 1990

|   |  | JAN    | FEV   | MAR  | AVR   | MAI  | JUN  | JUL   | AOU   | SEP   | OCT  | NOV   | DEC   | ANNEE     |
|---|--|--------|-------|------|-------|------|------|-------|-------|-------|------|-------|-------|-----------|
| DISPONIBILITE EN ENERGIE                |  | GWH    | 671   | 606  | 671   | 449  | 384  | 651   | 663   | 663   | 597  | 0     | 0     | 117 5472  |
| PRODUCTION D'ENERGIE                    |  |        |       |      |       |      |      |       |       |       |      |       |       |           |
| THERMIQUE                               |  | GWH    | 2126  | 1849 | 2088  | 1372 | 1091 | 1902  | 1949  | 2050  | 1879 | 0     | 0     | 100 16706 |
| ELECTRIQUE BRUTE                        |  | GWH    | 738   | 636  | 721   | 470  | 372  | 650   | 663   | 694   | 645  | 0     | 0     | 127 5715  |
| ELECTRIQUE NETTE                        |  | GWH    | 706   | 607  | 689   | 442  | 346  | 618   | 631   | 660   | 613  | -2    | -4    | 105 5410  |
| PUISSANCE MAX. ATTEINTE NETTE           |  | MW     | 986   | 990  | 980   | 971  | 955  | 967   | 966   | 953   | 1019 |       | 920   | 1019      |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |  | HEURES | 744   | 671  | 743   | 580  | 431  | 720   | 744   | 744   | 674  | 0     | 0     | 223 6274  |
| TAUX :                                  |  |        |       |      |       |      |      |       |       |       |      |       |       |           |
| D'UTILISATION EN TEMPS                  |  | %      | 100.0 | 99.9 | 100.0 | 80.6 | 57.9 | 100.0 | 100.0 | 100.0 | 93.5 | 0.0   | 0.0   | 30.0 71.6 |
| DE DISPONIBILITE EN ENERGIE             |  | %      | 99.8  | 99.8 | 99.9  | 68.9 | 57.1 | 100.0 | 98.6  | 98.6  | 91.6 | 0.0   | 0.0   | 17.6 69.1 |
| D'INDISPONIBILITE EN ENERGIE            |  | %      | 0.2   | 0.2  | 0.1   | 31.1 | 42.9 | 0.0   | 1.4   | 1.4   | 8.4  | 100.0 | 100.0 | 82.4 30.9 |
| DONT: PROGRAMME                         |  | %      | 0.2   | 0.0  | 0.1   | 0.1  | 0.1  | 0.0   | 0.0   | 0.0   | 8.4  | 100.0 | 83.3  | 12.6 17.1 |
| HORS PROGRAMME                          |  | %      | 0.0   | 0.2  | 0.0   | 31.0 | 42.8 | 0.0   | 1.4   | 1.4   | 0.0  | 0.0   | 16.7  | 69.8 13.8 |
| D'UTILISATION EN ENERGIE                |  | %      | 104.8 | 99.9 | 102.5 | 67.8 | 51.4 | 94.8  | 93.7  | 98.1  | 94.0 | -     | -     | 15.6 68.2 |
| DE RENDEMENT THERMIQUE NET              |  | %      | 33.2  | 32.8 | 33.0  | 32.2 | 31.8 | 32.5  | 32.4  | 32.2  | 32.6 | -     | -     | 26.3 32.4 |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 13.10.1987  
 DATE DU PREMIER COUPLAGE 14.11.1987  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.04.1988

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 954 MW  
 PUISSANCE MAX. POSSIBLE NETTE 905 MW

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |  |  |     |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------------------------------------|--|--|-----|-------|-------|-------|---------------------------|
|  |                           | PRODUCTION D'ENERGIE :             |  |  |     |       |       |       |                           |
| THERMIQUE                                      |                           |                                    |  |  | 372 | 14246 | 14676 | 18832 | 46126                     |
| ELECTRIQUE BRUTE                               | GWH                       |                                    |  |  | 38  | 4754  | 4967  | 6417  | 16176                     |
| ELECTRIQUE NETTE                               | GWH                       |                                    |  |  | 4   | 4415  | 4677  | 6079  | 15176                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    |                                    |  |  | 236 | 5897  | 5664  | 7003  | 18800                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |                                    |  |  | 5   | 4963  | 5168  | 6719  | 16855                     |
| TAUX :   |                           |                                    |  |  |     |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |                                    |  |  | 7   | 78    | 60    | 77    | 69                        |
| D'UTILISATION EN ENERGIE                       | %                         |                                    |  |  | 0   | 57    | 59    | 77    | 61                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR   | MAI   | JUN   | JUL  | AOU   | SEP   | OCT  | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|------|-------|-------|-------|------|-------|-------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 632   | 606   | 654  | 649   | 660   | 641   | 352  | 0     | 0     | 582  | 651   | 672   | 6099  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |       |       |       |      |       |       |      |       |       |       |
| THERMIQUE                               | GWH    | 1965  | 1874  | 1997 | 2008  | 1929  | 1939  | 1115 | 0     | 23    | 1831 | 2040  | 2111  | 18832 |
| ELECTRIQUE BRUTE                        | GWH    | 675   | 649   | 685  | 684   | 654   | 654   | 366  | 0     | 0     | 622  | 703   | 725   | 6417  |
| ELECTRIQUE NETTE                        | GWH    | 642   | 618   | 651  | 652   | 621   | 622   | 342  | -2    | -15   | 589  | 670   | 691   | 6079  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 964   | 957   | 966  | 964   | 956   | 950   | 945  |       | 52    | 947  | 959   | 961   | 966   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 729  | 720   | 744   | 720   | 463  | 0     | 4     | 743  | 720   | 744   | 7003  |
| TAUX :                                  |        |       |       |      |       |       |       |      |       |       |      |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 98.1 | 100.0 | 100.0 | 100.0 | 62.2 | 0.0   | 0.6   | 99.9 | 100.0 | 100.0 | 79.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 94.0  | 99.8  | 97.4 | 99.6  | 98.1  | 98.3  | 52.4 | 0.0   | 0.0   | 86.5 | 100.0 | 79.9  | 77.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 6.0   | 0.2   | 2.6  | 0.4   | 1.9   | 1.7   | 47.6 | 100.0 | 100.0 | 13.5 | 0.0   | 0.1   | 22.9  |
| DONT: PROGRAMME                         |        | 0.3   | 0.2   | 0.1  | 0.1   | 0.0   | 0.1   | 35.2 | 100.0 | 7.1   | 10.6 | 0.0   | 0.1   | 13.0  |
| HORS PROGRAMME                          | %      | 5.7   | 0.0   | 2.5  | 0.3   | 1.9   | 1.6   | 12.4 | 0.0   | 92.9  | 2.9  | 0.0   | 0.0   | 9.9   |
| D'UTILISATION EN ENERGIE                | %      | 95.3  | 101.7 | 96.8 | 100.0 | 92.2  | 95.5  | 50.9 | -     | -     | 87.5 | 102.9 | 102.6 | 78.7  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.6  | 33.0  | 32.6 | 32.5  | 32.2  | 32.1  | 30.7 | -     | -     | 32.2 | 32.9  | 32.7  | 32.3  |



## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 02.04.1983  
 DATE DU PREMIER COUPLAGE 29.04.1983  
 DEBUT DE L'EXPLOITATION COMMERCIALE 02.04.1984

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 921 MW  
 PUISSANCE MAX. POSSIBLE NETTE 880 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |        |                           | 1984                               | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |                                    |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 1633                      | 15966                              | 16481 | 18670 | 17095 | 13644 | 18162 | 16179 | 117830                    |
| ELECTRIQUE BRUTE                               | GWH    | 449                       | 5783                               | 5446  | 6195  | 5648  | 4334  | 5936  | 5274  | 37064                     |
| ELECTRIQUE NETTE                               | GWH    | 342                       | 5457                               | 5172  | 5888  | 5359  | 4029  | 5640  | 4981  | 36868                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 1151                      | 7165                               | 6615  | 7377  | 6860  | 5562  | 7239  | 6809  | 43778                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 390                       | 6202                               | 5878  | 6693  | 6088  | 4576  | 6412  | 5659  | 41898                     |
| TAUX :   |        |                           |                                    |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 8                         | 78                                 | 72    | 86    | 82    | 97    | 84    | 83    | 76                        |
| D'UTILISATION EN ENERGIE                       | %      | 7                         | 71                                 | 67    | 76    | 70    | 52    | 73    | 65    | 62                        |

## EXPLOITATION MENSUELLE 1990

|   |        | 1990 |       |      |       |      |       |      |      |       |       |      |       | ANNEE |
|---|--------|------|-------|------|-------|------|-------|------|------|-------|-------|------|-------|-------|
|   |        | JAN  | FEV   | MAR  | AVR   | MAI  | JUN   | JUL  | AOU  | SEP   | OCT   | NOV  | DEC   |       |
| DISPONIBILITE EN ENERGIE                | GWH    | 394  | 0     | 426  | 629   | 585  | 633   | 654  | 473  | 633   | 652   | 633  | 654   | 6366  |
| PRODUCTION D'ENERGIE                    |        |      |       |      |       |      |       |      |      |       |       |      |       |       |
| THERMIQUE                               | GWH    | 1253 | 0     | 1332 | 1811  | 1128 | 1429  | 1657 | 1285 | 1363  | 1764  | 1743 | 1414  | 16179 |
| ELECTRIQUE BRUTE                        | GWH    | 418  | 0     | 436  | 602   | 360  | 454   | 529  | 412  | 432   | 574   | 581  | 474   | 5274  |
| ELECTRIQUE NETTE                        | GWH    | 393  | -1    | 410  | 576   | 335  | 429   | 503  | 385  | 406   | 546   | 554  | 447   | 4981  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 738  |       | 909  | 899   | 900  | 905   | 878  | 875  | 877   | 883   | 903  | 903   | 909   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 626  | 0     | 531  | 720   | 473  | 641   | 714  | 561  | 596   | 744   | 683  | 520   | 6809  |
| TAUX :                                  |        |      |       |      |       |      |       |      |      |       |       |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 84.1 | 0.0   | 71.5 | 100.0 | 63.6 | 89.0  | 96.0 | 75.4 | 82.7  | 100.0 | 94.9 | 69.9  | 77.7  |
| DE DISPONIBILITE EN ENERGIE             | %      | 60.3 | 0.0   | 65.2 | 99.3  | 89.4 | 100.0 | 99.9 | 72.2 | 100.0 | 99.6  | 97.9 | 100.0 | 82.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 39.7 | 100.0 | 34.8 | 0.7   | 10.6 | 0.0   | 0.1  | 27.8 | 0.0   | 0.4   | 0.1  | 0.0   | 17.4  |
| DONT: PROGRAMME                         |        | 16.1 | 100.0 | 34.2 | 0.3   | 0.0  | 0.0   | 0.1  | 23.0 | 0.0   | 0.2   | 0.1  | 0.0   | 14.0  |
| HORS PROGRAMME                          | %      | 23.6 | 0.0   | 0.6  | 0.4   | 10.6 | 0.0   | 0.0  | 4.8  | 0.0   | 0.2   | 0.0  | 0.0   | 3.4   |
| D'UTILISATION EN ENERGIE                | %      | 60.1 | -     | 62.7 | 90.9  | 51.1 | 67.7  | 76.8 | 58.8 | 64.0  | 83.5  | 87.4 | 68.3  | 64.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 31.4 | -     | 30.8 | 31.8  | 29.7 | 30.0  | 30.3 | 29.9 | 29.8  | 31.0  | 31.8 | 31.6  | 30.8  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 01.08.1984 | PUISSANCE MAX. POSSIBLE BRUTE   | 956  | MW |
| DATE DU PREMIER COUPLAGE            | 06.09.1984 | PUISSANCE MAX. POSSIBLE NETTE   | 915  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.04.1985 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |  | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--|---------------------------|------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |  |                           |      |       |       |       |       |       |       |                           |
| THERMIQUE                                      |  |                           | 734  | 19322 | 15358 | 16956 | 17685 | 19291 | 18527 | 107873                    |
| ELECTRIQUE BRUTE                               |  | GWH                       | 177  | 6418  | 5203  | 5837  | 5994  | 6593  | 6290  | 34512                     |
| ELECTRIQUE NETTE                               |  | GWH                       | 124  | 6103  | 4939  | 5553  | 5701  | 6293  | 6002  | 34714                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |  | HEURES                    | 651  | 8325  | 6258  | 6761  | 7176  | 7697  | 7114  | 43982                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |  | HEURES                    | 141  | 6938  | 5615  | 6167  | 6333  | 6877  | 6561  | 36632                     |
| TAUX :   |  |                           |      |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |  | %                         | 6    | 89    | 70    | 79    | 80    | 83    | 78    | 76                        |
| D'UTILISATION EN ENERGIE                       |  | %                         | 5    | 79    | 64    | 70    | 72    | 79    | 75    | 70                        |

## EXPLOITATION MENSUELLE 1990

|   |  | JAN    | FEV   | MAR   | AVR  | MAI   | JUN   | JUL   | AOU   | SEP  | OCT  | NOV  | DEC  | ANNEE |       |
|---|--|--------|-------|-------|------|-------|-------|-------|-------|------|------|------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                |  | GWH    | 671   | 604   | 329  | 657   | 680   | 624   | 559   | 49   | 269  | 616  | 488  | 680   | 6226  |
| PRODUCTION D'ENERGIE                    |  |        |       |       |      |       |       |       |       |      |      |      |      |       |       |
| THERMIQUE                               |  | GWH    | 1961  | 1836  | 1006 | 1932  | 1984  | 1883  | 1779  | 160  | 872  | 1749 | 1412 | 1954  | 18527 |
| ELECTRIQUE BRUTE                        |  | GWH    | 676   | 631   | 343  | 660   | 673   | 645   | 587   | 52   | 280  | 593  | 481  | 570   | 6290  |
| ELECTRIQUE NETTE                        |  | GWH    | 648   | 605   | 322  | 633   | 645   | 618   | 559   | 47   | 259  | 566  | 457  | 643   | 6002  |
| PUISSANCE MAX. ATTEINTE NETTE           |  | MW     | 947   | 936   | 934  | 930   | 932   | 920   | 830   | 689  | 917  | 927  | 730  | 940   | 947   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |  | HEURES | 744   | 672   | 383  | 720   | 744   | 720   | 744   | 74   | 354  | 678  | 537  | 744   | 7114  |
| TAUX :                                  |  |        |       |       |      |       |       |       |       |      |      |      |      |       |       |
| D'UTILISATION EN TEMPS                  |  | %      | 100.0 | 100.0 | 51.5 | 100.0 | 100.0 | 100.0 | 100.0 | 9.9  | 49.1 | 91.1 | 74.6 | 100.0 | 81.2  |
| DE DISPONIBILITE EN ENERGIE             |  | %      | 98.5  | 98.3  | 48.4 | 99.8  | 99.9  | 94.7  | 82.1  | 7.3  | 40.8 | 90.6 | 74.2 | 99.9  | 77.7  |
| D'INDISPONIBILITE EN ENERGIE            |  | %      | 1.5   | 1.7   | 51.6 | 0.2   | 0.1   | 5.3   | 17.9  | 92.7 | 59.2 | 9.4  | 25.8 | 0.1   | 22.3  |
| DDHT: PROGRAMME                         |  |        | 0.1   | 0.1   | 0.0  | 0.0   | 0.1   | 0.1   | 0.1   | 90.1 | 50.5 | 0.1  | 0.1  | 0.1   | 11.9  |
| HORS PROGRAMME                          |  | %      | 1.4   | 1.6   | 51.6 | 0.2   | 0.0   | 5.2   | 17.8  | 2.6  | 8.7  | 9.3  | 25.7 | 0.0   | 10.4  |
| D'UTILISATION EN ENERGIE                |  | %      | 95.2  | 98.4  | 47.3 | 96.1  | 94.7  | 93.8  | 82.1  | 6.8  | 39.3 | 83.2 | 67.4 | 94.5  | 74.9  |
| DE RENDEMENT THERMIQUE NET              |  | %      | 33.1  | 32.9  | 32.0 | 32.8  | 32.9  | 32.8  | 31.4  | 29.1 | 29.7 | 32.4 | 32.4 | 32.9  | 32.4  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 09.04.1984  
 DATE DU PREMIER COUPLAGE 14.05.1984  
 DEBUT DE L'EXPLOITATION COMMERCIALE 10.09.1984

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2785 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 956 MW  
 PUISSANCE MAX. POSSIBLE NETTE 915 MW

## DONNEES D'EXPLOITATION ANNUELLE

|  | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |                           | 1984                               | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |                           |                                    |       |       |       |       |       |       |                           |
| THERMIQUE                                      |                           | 10634                              | 16852 | 19299 | 15405 | 15770 | 17321 | 19235 | 114516                    |
| ELECTRIQUE BRUTE                               | GWH                       | 3457                               | 5505  | 6266  | 4977  | 5075  | 5830  | 6420  | 37530                     |
| ELECTRIQUE NETTE                               | GWH                       | 3268                               | 5243  | 5967  | 4709  | 4777  | 5565  | 6125  | 35653                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    | 4380                               | 6559  | 7456  | 6013  | 6699  | 6571  | 7499  | 45177                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    | 3715                               | 5957  | 6780  | 5352  | 5429  | 6325  | 6693  | 40250                     |
| TAUX :   |                           |                                    |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         | 69                                 | 73    | 89    | 75    | 99    | 73    | 85    | 81                        |
| D'UTILISATION EN ENERGIE                       | %                         | 67                                 | 68    | 77    | 61    | 62    | 72    | 76    | 69                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR   | MAI  | JUN  | JUL   | AOU  | SEP   | OCT  | NOV  | DEC   | ANNEE |
|---|--------|-------|-------|------|-------|------|------|-------|------|-------|------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 680   | 577   | 507  | 0     | 434  | 657  | 680   | 670  | 659   | 653  | 657  | 649   | 6823  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |       |      |      |       |      |       |      |      |       |       |
| THERMIQUE                               | GWH    | 2061  | 1770  | 1597 | 0     | 1341 | 1566 | 1626  | 1481 | 1915  | 1942 | 1775 | 1960  | 19235 |
| ELECTRIQUE BRUTE                        | GWH    | 707   | 602   | 533  | 0     | 430  | 507  | 530   | 480  | 643   | 658  | 670  | 662   | 6420  |
| ELECTRIQUE NETTE                        | GWH    | 680   | 577   | 507  | -3    | 404  | 482  | 504   | 454  | 616   | 630  | 643  | 633   | 6125  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 936   | 922   | 806  |       | 922  | 936  | 934   | 923  | 928   | 936  | 932  | 932   | 936   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 705  | 0     | 539  | 650  | 664   | 615  | 721   | 727  | 718  | 744   | 7499  |
| TAUX :                                  |        |       |       |      |       |      |      |       |      |       |      |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 94.9 | 0.0   | 72.4 | 90.3 | 89.2  | 82.7 | 100.0 | 97.7 | 97.7 | 100.0 | 85.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 100.0 | 93.8  | 74.6 | 0.0   | 63.7 | 99.8 | 100.0 | 98.4 | 100.0 | 95.9 | 97.8 | 95.5  | 85.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.0   | 6.2   | 25.4 | 100.0 | 36.3 | 0.2  | 0.0   | 1.6  | 0.0   | 4.1  | 0.2  | 4.5   | 14.8  |
| DONT: PROGRAMME                         |        | 0.0   | 0.1   | 4.5  | 100.0 | 34.9 | 0.2  | 0.0   | 0.1  | 0.0   | 0.1  | 0.0  | 0.0   | 11.6  |
| HORS PROGRAMME                          | %      | 0.0   | 6.1   | 20.9 | 0.0   | 1.4  | 0.0  | 0.0   | 1.5  | 0.0   | 4.0  | 0.2  | 4.5   | 3.2   |
| D'UTILISATION EN ENERGIE                | %      | 99.9  | 93.9  | 74.5 | -     | 59.3 | 73.1 | 74.0  | 66.7 | 93.4  | 92.5 | 97.6 | 93.0  | 76.4  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.0  | 32.6  | 31.7 | -     | 30.1 | 30.8 | 31.0  | 30.6 | 32.2  | 32.4 | 32.6 | 32.3  | 31.8  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2785 | MW |
| DATE DE PREMIERE CRITICITE          | 01.10.1984 | PUISSANCE MAX. POSSIBLE BRUTE   | 921  | MW |
| DATE DU PREMIER COUPLAGE            | 27.10.1984 | PUISSANCE MAX. POSSIBLE NETTE   | 880  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 11.02.1985 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |      |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        |                           | 2392 | 18563 | 16989 | 16621 | 10524 | 15402 | 19644 | 100136                    |
| ELECTRIQUE BRUTE                               | GWH    |                           | 719  | 6070  | 5724  | 5596  | 3489  | 5121  | 6525  | 33244                     |
| ELECTRIQUE NETTE                               | GWH    |                           | 668  | 5774  | 5450  | 5308  | 3250  | 4846  | 6215  | 31511                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |                           | 1158 | 7434  | 6816  | 6889  | 4271  | 6025  | 7607  | 40200                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |                           | 759  | 6561  | 6193  | 6036  | 3689  | 5510  | 7061  | 33809                     |
| TAUX :   |        |                           |      |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      |                           | 48   | 86    | 77    | 84    | 74    | 71    | 86    | 79                        |
| D'UTILISATION EN ENERGIE                       | %      |                           | 48   | 75    | 71    | 69    | 42    | 63    | 81    | 66                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR   | MAI  | JUN  | JUL   | AOU   | SEP  | OCT  | NOV  | DEC  | ANNEE |
|---|--------|-------|-------|------|-------|------|------|-------|-------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 650   | 588   | 612  | 621   | 239  | 598  | 647   | 647   | 613  | 575  | 579  | 257  | 6626  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |       |      |      |       |       |      |      |      |      |       |
| THERMIQUE                               | GWH    | 2010  | 1756  | 1806 | 1873  | 627  | 1600 | 1849  | 1944  | 1856 | 1768 | 1773 | 782  | 19644 |
| ELECTRIQUE BRUTE                        | GWH    | 678   | 585   | 603  | 618   | 205  | 520  | 606   | 626   | 611  | 594  | 610  | 269  | 6525  |
| ELECTRIQUE NETTE                        | GWH    | 650   | 559   | 575  | 591   | 186  | 493  | 578   | 597   | 583  | 566  | 582  | 255  | 6215  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 921   | 899   | 905  | 901   | 900  | 902  | 891   | 876   | 885  | 910  | 911  | 950  | 921   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 699  | 720   | 252  | 684  | 744   | 744   | 710  | 659  | 665  | 314  | 7607  |
| TAUX :                                  |        |       |       |      |       |      |      |       |       |      |      |      |      |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 94.1 | 100.0 | 33.9 | 95.0 | 100.0 | 100.0 | 98.5 | 88.6 | 92.4 | 42.2 | 86.8  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.2  | 99.7  | 93.7 | 98.1  | 36.6 | 94.4 | 98.9  | 98.9  | 96.9 | 87.8 | 91.4 | 39.2 | 86.0  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.8   | 0.3   | 6.3  | 1.9   | 63.4 | 5.6  | 1.1   | 1.1   | 3.1  | 12.2 | 8.6  | 60.8 | 14.0  |
| DONT: PROGRAMME                         |        | 0.1   | 0.2   | 0.0  | 1.9   | 0.4  | 0.0  | 0.6   | 0.9   | 1.0  | 0.2  | 0.0  | 58.0 | 5.4   |
| HORS PROGRAMME                          | %      | 0.7   | 0.1   | 6.3  | 0.0   | 63.0 | 5.6  | 0.5   | 0.2   | 2.1  | 12.0 | 8.6  | 2.8  | 8.6   |
| D'UTILISATION EN ENERGIE                | %      | 99.3  | 94.6  | 87.9 | 93.2  | 28.4 | 77.8 | 88.2  | 91.3  | 92.0 | 86.4 | 91.9 | 38.9 | 80.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.3  | 31.9  | 31.8 | 31.5  | 29.7 | 30.8 | 31.2  | 30.7  | 31.4 | 32.0 | 32.8 | 32.6 | 31.6  |

STATION : PALUEL 1

FRANCE

DOHNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 13.05.1984 | PUISSANCE MAX. POSSIBLE BRUTE   | 1382 | MW |
| DATE DU PREMIER COUPLAGE            | 22.06.1984 | PUISSANCE MAX. POSSIBLE NETTE   | 1330 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.12.1985 |                                 |      |    |

| DOHNEES D'EXPLOITATION ANNUELLE                |  | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--|---------------------------|------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |  |                           |      |       |       |       |       |       |       |                           |
| THERMIQUE                                      |  |                           | 6092 | 14017 | 15067 | 23746 | 26865 | 22581 | 21289 | 127657                    |
| ELECTRIQUE BRUTE                               |  | GWH                       | 1977 | 4954  | 5448  | 8569  | 9746  | 8255  | 7691  | 46640                     |
| ELECTRIQUE NETTE                               |  | GWH                       | 1764 | 4656  | 5143  | 8187  | 9297  | 7884  | 7309  | 44242                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |  | HEURES                    | 2611 | 4103  | 4455  | 6527  | 7332  | 6567  | 6288  | 37883                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |  | HEURES                    | 1367 | 3609  | 3986  | 6342  | 6992  | 5931  | 5493  | 33719                     |
| TAUX :   |  |                           |      |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |  | %                         | 32   | 41    | 50    | 76    | 95    | 70    | 66    | 64                        |
| D'UTILISATION EN ENERGIE                       |  | %                         | 30   | 41    | 46    | 72    | 80    | 68    | 63    | 59                        |

EXPLOITATION MENSUELLE 1990

|   |  | JAN    | FEV  | MAR  | AVR  | MAI   | JUN   | JUL  | AOU  | SEP   | OCT  | NOV  | DEC   | ANNEE |       |
|---|--|--------|------|------|------|-------|-------|------|------|-------|------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                |  | GWH    | 761  | 227  | 574  | 0     | 0     | 426  | 923  | 987   | 946  | 975  | 937   | 758   | 7734  |
| PRODUCTION D'ENERGIE                    |  |        |      |      |      |       |       |      |      |       |      |      |       |       |       |
| THERMIQUE                               |  | GWH    | 2158 | 653  | 1722 | 0     | 1     | 1290 | 2388 | 2700  | 2549 | 2543 | 2423  | 2464  | 21289 |
| ELECTRIQUE BRUTE                        |  | GWH    | 796  | 239  | 609  | 0     | 0     | 449  | 869  | 967   | 916  | 922  | 854   | 969   | 7691  |
| ELECTRIQUE NETTE                        |  | GWH    | 758  | 209  | 573  | -2    | -10   | 413  | 832  | 929   | 879  | 883  | 917   | 930   | 7309  |
| PUISSANCE MAX. ATTEINTE NETTE           |  | MW     | 1361 | 1177 | 1059 |       |       | 1334 | 1338 | 1310  | 1322 | 1336 | 1353  | 1341  | 1361  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |  | HEURES | 590  | 215  | 698  | 0     | 0     | 454  | 681  | 744   | 716  | 738  | 720   | 732   | 6288  |
| TAUX :                                  |  |        |      |      |      |       |       |      |      |       |      |      |       |       |       |
| D'UTILISATION EN TEMPS                  |  | %      | 79.3 | 32.0 | 93.9 | 0.0   | 0.0   | 63.1 | 91.5 | 100.0 | 99.3 | 99.2 | 100.0 | 98.4  | 71.8  |
| DE DISPONIBILITE EN ENERGIE             |  | %      | 77.0 | 25.5 | 58.2 | 0.0   | 0.0   | 44.6 | 93.2 | 99.7  | 98.6 | 98.6 | 97.9  | 95.8  | 66.4  |
| D'INDISPONIBILITE EN ENERGIE            |  | %      | 23.0 | 74.5 | 41.8 | 100.0 | 100.0 | 55.4 | 6.8  | 0.3   | 1.4  | 1.4  | 0.1   | 3.2   | 33.6  |
| DONT: PROGRAMME                         |  |        | 0.0  | 0.0  | 3.3  | 100.0 | 87.1  | 17.8 | 0.2  | 0.0   | 0.1  | 0.0  | 0.1   | 0.0   | 17.4  |
| HORS PROGRAMME                          |  | %      | 23.0 | 74.5 | 38.5 | 0.0   | 12.9  | 37.6 | 6.6  | 0.3   | 1.3  | 1.4  | 0.0   | 3.2   | 16.2  |
| D'UTILISATION EN ENERGIE                |  | %      | 76.6 | 23.4 | 58.0 | -     | -     | 43.1 | 84.1 | 93.9  | 91.7 | 89.3 | 95.8  | 94.0  | 62.7  |
| DE RENDEMENT THERMIQUE NET              |  | %      | 35.1 | 32.0 | 33.3 | -     | -     | 32.0 | 34.8 | 34.4  | 34.5 | 34.7 | 35.0  | 34.9  | 34.3  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 11.08.1984  
 DATE DU PREMIER COUPLAGE 14.09.1984  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.12.1985

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3817 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1382 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1330 MW

| DONNEES D'EXPLOITATION ANNUELLE                |  | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--|---------------------------|------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |  |                           |      |       |       |       |       |       |       |                           |
| THERMIQUE                                      |  |                           | 3602 | 17611 | 17386 | 25213 | 22015 | 25675 | 18744 | 130247                    |
| ELECTRIQUE BRUTE                               |  | GWH                       | 1121 | 6318  | 6313  | 9231  | 8080  | 9357  | 6796  | 47217                     |
| ELECTRIQUE NETTE                               |  | GWH                       | 1000 | 5980  | 6007  | 8843  | 7722  | 8949  | 6467  | 44967                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |  | HEURES                    | 1784 | 5548  | 4804  | 6837  | 6017  | 7358  | 5328  | 37676                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |  | HEURES                    | 775  | 4634  | 4660  | 6859  | 5806  | 6728  | 4862  | 34324                     |
| TAUX :   |  |                           |      |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |  | %                         | 31   | 53    | 52    | 77    | 74    | 80    | 59    | 64                        |
| D'UTILISATION EN ENERGIE                       |  | %                         | 30   | 53    | 53    | 78    | 66    | 77    | 56    | 62                        |

## EXPLOITATION MENSUELLE 1990

|   |  | JAN    | FEV   | MAR   | AVR   | MAI  | JUN  | JUL   | AOU  | SEP   | OCT   | NOV  | DEC  | ANNEE |       |
|---|--|--------|-------|-------|-------|------|------|-------|------|-------|-------|------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                |  | GWH    | 0     | 0     | 0     | 432  | 976  | 956   | 974  | 975   | 873   | 968  | 256  | 6879  |       |
| PRODUCTION D'ENERGIE                    |  |        |       |       |       |      |      |       |      |       |       |      |      |       |       |
| THERMIQUE                               |  | GWH    | 0     | 0     | 26    | 1272 | 2485 | 2671  | 2581 | 2565  | 2428  | 2667 | 712  | 1339  | 18744 |
| ELECTRIQUE BRUTE                        |  | GWH    | 0     | 0     | 0     | 456  | 909  | 978   | 937  | 923   | 878   | 970  | 258  | 187   | 6796  |
| ELECTRIQUE NETTE                        |  | GWH    | -1    | -6    | -19   | 425  | 872  | 942   | 899  | 885   | 842   | 932  | 741  | 458   | 6467  |
| PUISSANCE MAX. ATTEINTE NETTE           |  | MW     |       |       | 1348  | 1348 | 1339 | 1325  | 1320 | 1339  | 1339  | 1334 | 1347 | 1348  |       |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |  | HEURES | 0     | 0     | 0     | 433  | 669  | 720   | 737  | 744   | 721   | 736  | 195  | 373   | 5328  |
| TAUX :                                  |  |        |       |       |       |      |      |       |      |       |       |      |      |       |       |
| D'UTILISATION EN TEMPS                  |  | %      | 0.0   | 0.0   | 0.0   | 60.1 | 89.9 | 100.0 | 99.1 | 100.0 | 100.0 | 98.9 | 27.1 | 50.1  | 60.8  |
| DE DISPONIBILITE EN ENERGIE             |  | %      | 0.0   | 0.0   | 0.0   | 45.2 | 98.6 | 99.8  | 98.4 | 98.6  | 91.1  | 97.8 | 26.8 | 47.4  | 59.0  |
| D'INDISPONIBILITE EN ENERGIE            |  | %      | 100.0 | 100.0 | 100.0 | 54.8 | 1.4  | 0.2   | 1.6  | 1.4   | 8.9   | 2.2  | 73.2 | 52.6  | 41.0  |
| DONT: PROGRAMME                         |  | %      | 100.0 | 64.3  | 0.0   | 14.2 | 0.1  | 0.2   | 0.1  | 0.0   | 8.8   | 0.0  | 73.0 | 47.2  | 25.4  |
| HORS PROGRAMME                          |  | %      | 0.0   | 35.7  | 100.0 | 40.6 | 1.3  | 0.0   | 1.5  | 1.4   | 0.1   | 2.2  | 0.2  | 5.4   | 15.6  |
| D'UTILISATION EN ENERGIE                |  | %      | -     | -     | -     | 44.4 | 88.1 | 98.4  | 90.9 | 89.4  | 87.8  | 94.2 | 25.1 | 46.3  | 55.5  |
| DE RENDEMENT THERMIQUE NET              |  | %      | -     | -     | -     | 33.5 | 35.1 | 35.3  | 34.8 | 34.5  | 34.7  | 34.9 | 33.8 | 34.2  | 34.5  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 07.08.1985  
 DATE DU PREMIER COUPLAGE 30.09.1985  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.02.1986

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3817 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1382 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1330 MW

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 |      |      |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------|------|-------|-------|-------|-------|-------|---------------------------|
|  |                           | 1984 | 1985 | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |                           |      |      |       |       |       |       |       |                           |
| THERMIQUE                                      |                           |      | 4990 | 23878 | 22362 | 19698 | 23567 | 21247 | 115742                    |
| ELECTRIQUE BRUTE                               | GWH                       |      | 1712 | 8675  | 8078  | 7102  | 8463  | 7652  | 41682                     |
| ELECTRIQUE NETTE                               | GWH                       |      | 1606 | 8316  | 7700  | 6754  | 8107  | 7315  | 37798                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    |      | 1747 | 6503  | 6098  | 5413  | 6288  | 6008  | 32057                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |      | 1245 | 6447  | 5966  | 5077  | 6097  | 5501  | 31334                     |
| TAUX :   |                           |      |      |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |      | 56   | 72    | 76    | 59    | 70    | 66    | 68                        |
| D'UTILISATION EN ENERGIE                       | %                         |      | 56   | 74    | 68    | 58    | 70    | 63    | 66                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR  | AVR   | MAI   | JUN   | JUL   | AOU  | SEP  | OCT   | NOV   | DEC  | ANNEE |
|---|--------|------|------|------|-------|-------|-------|-------|------|------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 961  | 726  | 183  | 957   | 984   | 940   | 982   | 932  | 802  | 0     | 0     | 250  | 7717  |
| PRODUCTION D'ENERGIE                    |        |      |      |      |       |       |       |       |      |      |       |       |      |       |
| THERMIQUE                               | GWH    | 2692 | 2021 | 521  | 2665  | 2516  | 2436  | 2661  | 2641 | 2333 | 0     | 0     | 759  | 21247 |
| ELECTRIQUE BRUTE                        | GWH    | 978  | 733  | 189  | 969   | 900   | 873   | 962   | 948  | 836  | 0     | 0     | 263  | 7652  |
| ELECTRIQUE NETTE                        | GWH    | 941  | 703  | 172  | 933   | 863   | 836   | 925   | 911  | 801  | -2    | -3    | 238  | 7315  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1338 | 1338 | 1341 | 1338  | 1334  | 1335  | 1335  | 1314 | 1262 |       |       | 1322 | 1341  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 724  | 549  | 141  | 720   | 744   | 720   | 744   | 717  | 674  | 0     | 0     | 275  | 6008  |
| TAUX :                                  |        |      |      |      |       |       |       |       |      |      |       |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 97.3 | 81.7 | 19.0 | 100.0 | 100.0 | 100.0 | 100.0 | 96.4 | 93.5 | 0.0   | 0.0   | 37.0 | 68.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 97.1 | 81.3 | 18.6 | 100.0 | 99.4  | 98.2  | 99.2  | 94.2 | 83.7 | 0.0   | 0.0   | 25.2 | 66.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 2.9  | 18.7 | 81.4 | 0.0   | 0.6   | 1.8   | 0.8   | 5.8  | 16.3 | 100.0 | 100.0 | 74.8 | 33.8  |
| DONT: PROGRAMME                         |        | 0.0  | 17.6 | 81.4 | 0.0   | 0.4   | 0.1   | 0.1   | 4.0  | 6.7  | 100.0 | 100.0 | 63.4 | 31.3  |
| HORS PROGRAMME                          | %      | 2.9  | 1.1  | 0.0  | 0.0   | 0.2   | 1.7   | 0.7   | 1.8  | 9.6  | 0.0   | 0.0   | 11.4 | 2.5   |
| D'UTILISATION EN ENERGIE                | %      | 95.1 | 78.7 | 17.4 | 97.4  | 87.2  | 87.3  | 93.5  | 92.1 | 83.5 | -     | -     | 24.0 | 62.8  |
| DE RENDEMENT THERMIQUE NET              | %      | 35.0 | 34.8 | 33.0 | 35.0  | 34.3  | 34.3  | 34.8  | 34.5 | 34.3 | -     | -     | 31.3 | 34.4  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 29.03.1986  
 DATE DU PREMIER COUPLAGE 11.04.1986  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.06.1986

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3817 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1382 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1330 MW

| DONNEES D'EXPLOITATION ANNUELLE                |     | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|-----|---------------------------|------|------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |     |                           |      |      |       |       |       |       |       |                           |
| THERMIQUE                                      |     |                           |      |      | 18649 | 23281 | 17240 | 23791 | 23497 | 106458                    |
| ELECTRIQUE BRUTE                               | GWH |                           |      |      | 6644  | 8370  | 6190  | 8599  | 8443  | 36245                     |
| ELECTRIQUE NETTE                               | GWH |                           |      |      | 6355  | 8015  | 5897  | 8255  | 8062  | 36584                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |     | HEURES                    |      |      | 5343  | 6289  | 4812  | 6349  | 6770  | 27563                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |     | HEURES                    |      |      | 4924  | 6211  | 4436  | 6211  | 6062  | 27843                     |
| TAUX :   |     |                           |      |      |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |     | %                         |      |      | 78    | 70    | 54    | 71    | 79    | 70                        |
| D'UTILISATION EN ENERGIE                       |     | %                         |      |      | 78    | 71    | 51    | 71    | 69    | 67                        |

## EXPLOITATION MENSUELLE 1990

|   |     | JAN    | FEV  | MAR   | AVR   | MAI   | JUN   | JUL  | AOU   | SEP  | OCT  | NOV  | DEC   | ANNEE |      |
|---|-----|--------|------|-------|-------|-------|-------|------|-------|------|------|------|-------|-------|------|
| DISPONIBILITE EN ENERGIE                | GWH | 23     | 851  | 987   | 956   | 988   | 906   | 0    | 577   | 938  | 973  | 957  | 989   | 9145  |      |
| PRODUCTION D'ENERGIE                    |     |        |      |       |       |       |       |      |       |      |      |      |       |       |      |
| THERMIQUE                               | GWH | 93     | 2451 | 2767  | 2679  | 2557  | 1408  | 0    | 1385  | 2194 | 2574 | 2639 | 2749  | 23497 |      |
| ELECTRIQUE BRUTE                        | GWH | 26     | 886  | 1005  | 974   | 919   | 493   | 0    | 487   | 773  | 930  | 957  | 994   | 8443  |      |
| ELECTRIQUE NETTE                        | GWH | 7      | 852  | 968   | 937   | 882   | 459   | -5   | 456   | 737  | 892  | 921  | 957   | 8062  |      |
| PUISSANCE MAX. ATTEINTE NETTE           | MW  | 767    | 1338 | 1337  | 1342  | 1339  | 1334  |      | 1316  | 1332 | 1332 | 1335 | 1330  | 1342  |      |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |     | HEURES | 49   | 672   | 743   | 720   | 744   | 534  | 0     | 421  | 687  | 736  | 720   | 744   | 6770 |
| TAUX :                                  |     |        |      |       |       |       |       |      |       |      |      |      |       |       |      |
| D'UTILISATION EN TEMPS                  |     | %      | 6.6  | 100.0 | 100.0 | 100.0 | 100.0 | 74.2 | 0.0   | 56.6 | 95.3 | 98.9 | 100.0 | 100.0 | 77.3 |
| DE DISPONIBILITE EN ENERGIE             |     | %      | 2.4  | 95.2  | 99.9  | 99.9  | 99.8  | 94.6 | 0.0   | 58.4 | 97.9 | 98.3 | 97.9  | 99.9  | 78.5 |
| D'INDISPONIBILITE EN ENERGIE            |     | %      | 97.6 | 4.8   | 0.1   | 0.1   | 0.2   | 5.4  | 100.0 | 41.6 | 2.1  | 1.7  | 0.1   | 0.1   | 21.5 |
| DONT : PROGRAMME                        |     |        | 5.9  | 4.5   | 0.0   | 0.1   | 0.1   | 3.2  | 100.0 | 16.1 | 0.0  | 0.0  | 0.0   | 0.0   | 11.0 |
| HORS PROGRAMME                          |     | %      | 91.7 | 0.3   | 0.1   | 0.0   | 0.1   | 2.2  | 0.0   | 25.5 | 2.1  | 1.7  | 0.1   | 0.1   | 10.5 |
| D'UTILISATION EN ENERGIE                |     | %      | 0.7  | 95.4  | 97.9  | 97.9  | 89.1  | 48.0 | -     | 46.1 | 76.8 | 90.1 | 96.2  | 95.7  | 69.2 |
| DE RENDEMENT THERMIQUE NET              |     | %      | 7.9  | 34.8  | 35.0  | 35.0  | 34.5  | 32.6 | -     | 33.0 | 33.6 | 34.6 | 34.9  | 34.8  | 34.3 |



## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 04.08.1985 | PUISSANCE MAX. POSSIBLE BRUTE   | 1381 | MW |
| DATE DU PREMIER COUPLAGE            | 30.08.1985 | PUISSANCE MAX. POSSIBLE NETTE   | 1335 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.05.1986 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 |      |      |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------|------|-------|-------|-------|-------|-------|---------------------------|
|  |                           | 1984 | 1985 | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |                           |      |      |       |       |       |       |       |                           |
| THERMIQUE                                      |                           |      | 4257 | 19954 | 17802 | 13755 | 19932 | 22518 | 98218                     |
| ELECTRIQUE BRUTE                               | GWH                       |      | 1409 | 7144  | 6398  | 4947  | 7109  | 8126  | 35133                     |
| ELECTRIQUE NETTE                               | GWH                       |      | 1288 | 6723  | 6073  | 4555  | 6758  | 7776  | 33173                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    |      | 1693 | 5449  | 4944  | 3721  | 5907  | 6295  | 28009                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |      | 991  | 5168  | 4669  | 3470  | 5063  | 5825  | 25187                     |
| TAUX :   |                           |      |      |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |      | 34   | 69    | 56    | 82    | 64    | 69    | 66                        |
| D'UTILISATION EN ENERGIE                       | %                         |      | 33   | 59    | 53    | 40    | 58    | 67    | 54                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR  | MAI  | JUN  | JUL   | AOU   | SEP  | OCT  | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|------|------|------|------|-------|-------|------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 987   | 893   | 933  | 845  | 827  | 191  | 0     | 0     | 454  | 938  | 959   | 992   | 8019  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |      |      |      |       |       |      |      |       |       |       |
| THERMIQUE                               | GWH    | 2754  | 2429  | 2537 | 2418 | 2411 | 560  | 0     | 1     | 1366 | 2656 | 2646  | 2740  | 22518 |
| ELECTRIQUE BRUTE                        | GWH    | 992   | 879   | 922  | 875  | 862  | 200  | 0     | 0     | 475  | 955  | 965   | 1000  | 8126  |
| ELECTRIQUE NETTE                        | GWH    | 955   | 847   | 887  | 842  | 827  | 186  | -5    | -16   | 440  | 920  | 931   | 965   | 7776  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1342  | 1345  | 1347 | 1347 | 1271 | 1073 |       |       | 1333 | 1341 | 1351  | 1347  | 1351  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 700  | 670  | 719  | 186  | 0     | 0     | 425  | 715  | 720   | 744   | 6295  |
| TAUX :                                  |        |       |       |      |      |      |      |       |       |      |      |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 94.2 | 93.1 | 96.6 | 25.8 | 0.0   | 0.0   | 58.9 | 96.1 | 100.0 | 100.0 | 71.9  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.4  | 99.6  | 94.1 | 88.1 | 83.4 | 19.9 | 0.0   | 0.0   | 47.3 | 94.5 | 99.9  | 100.0 | 68.7  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.6   | 0.4   | 5.9  | 11.9 | 16.6 | 80.1 | 100.0 | 100.0 | 52.7 | 5.5  | 0.1   | 0.0   | 31.3  |
| DONT: PROGRAMME                         |        | 0.0   | 0.1   | 0.0  | 0.4  | 0.0  | 73.2 | 100.0 | 16.1  | 10.7 | 0.1  | 0.0   | 0.0   | 16.8  |
| HORS PROGRAMME                          | %      | 0.6   | 0.3   | 5.9  | 11.5 | 16.6 | 6.9  | 0.0   | 83.9  | 42.0 | 5.4  | 0.1   | 0.0   | 14.5  |
| D'UTILISATION EN ENERGIE                | %      | 96.1  | 94.4  | 89.4 | 87.6 | 83.3 | 19.4 | -     | -     | 45.7 | 92.6 | 96.8  | 97.2  | 66.5  |
| DE RENDEMENT THERMIQUE NET              | %      | 34.7  | 34.9  | 34.9 | 34.8 | 34.3 | 33.3 | -     | -     | 32.2 | 34.6 | 35.2  | 33.2  | 34.5  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE .CRITICITE         | 07.06.1986 | PUISSANCE MAX. POSSIBLE BRUTE   | 1381 | MW |
| DATE DU PREMIER COUPLAGE            | 03.07.1986 | PUISSANCE MAX. POSSIBLE NETTE   | 1335 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.03.1987 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |       |       |       |       |                           |
| THERMIQUE                                      |        |                           |      |      | 3792 | 20700 | 15050 | 17663 | 17506 | 74712                     |
| ELECTRIQUE BRUTE                               | GWH    |                           |      |      | 1230 | 7355  | 5429  | 6386  | 6360  | 24760                     |
| ELECTRIQUE NETTE                               | GWH    |                           |      |      | 1060 | 6957  | 5134  | 6107  | 6039  | 25297                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |                           |      |      | 1482 | 6094  | 4308  | 4806  | 5146  | 21836                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |                           |      |      | 817  | 5352  | 3874  | 4573  | 4520  | 19136                     |
| TAUX :   |        |                           |      |      |      |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      |                           |      |      | 17   | 78    | 46    | 56    | 57    | 54                        |
| D'UTILISATION EN ENERGIE                       | %      |                           |      |      | 19   | 61    | 44    | 52    | 52    | 49                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR  | MAI  | JUN  | JUL   | AOU  | SEP   | OCT   | NOV   | DEC  | ANNEE |
|---|--------|------|------|-------|------|------|------|-------|------|-------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 114  | 799  | 985   | 882  | 680  | 959  | 986   | 325  | 0     | 0     | 0     | 874  | 6604  |
| PRODUCTION D'ENERGIE                    |        |      |      |       |      |      |      |       |      |       |       |       |      |       |
| THERMIQUE                               | GWH    | 366  | 2221 | 2660  | 2371 | 1890 | 2159 | 2628  | 829  | 0     | 0     | 0     | 2382 | 17506 |
| ELECTRIQUE BRUTE                        | GWH    | 117  | 813  | 971   | 870  | 678  | 787  | 957   | 297  | 0     | 0     | 0     | 871  | 6360  |
| ELECTRIQUE NETTE                        | GWH    | 88   | 781  | 936   | 836  | 644  | 754  | 921   | 276  | -7    | -4    | -18   | 835  | 6039  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        | 970  | 1353 | 1344  | 1347 | 1349 | 1349 | 1346  | 1330 |       |       |       | 1355 | 1355  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 157  | 665  | 743   | 654  | 608  | 639  | 744   | 245  | 0     | 0     | 0     | 691  | 5146  |
| TAUX :                                  |        |      |      |       |      |      |      |       |      |       |       |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 21.1 | 99.0 | 100.0 | 90.8 | 81.7 | 88.8 | 100.0 | 32.9 | 0.0   | 0.0   | 0.0   | 92.9 | 58.7  |
| DE DISPONIBILITE EN ENERGIE             | %      | 11.5 | 89.2 | 99.4  | 91.9 | 68.6 | 99.9 | 99.3  | 32.8 | 0.0   | 0.0   | 0.0   | 88.1 | 56.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 88.5 | 10.8 | 0.6   | 8.1  | 31.4 | 0.1  | 0.7   | 67.2 | 100.0 | 100.0 | 100.0 | 11.9 | 43.4  |
| DONT: PROGRAMME                         |        | 12.8 | 2.2  | 0.0   | 0.0  | 0.3  | 0.0  | 0.0   | 67.1 | 100.0 | 67.7  | 0.0   | 2.0  | 21.1  |
| HORS PROGRAMME                          | %      | 75.7 | 8.6  | 0.6   | 8.1  | 31.1 | 0.1  | 0.7   | 0.1  | 0.0   | 32.3  | 100.0 | 9.9  | 22.3  |
| D'UTILISATION EN ENERGIE                | %      | 8.9  | 87.0 | 94.4  | 87.0 | 64.9 | 78.4 | 92.7  | 27.7 | -     | -     | -     | 84.1 | 51.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 24.1 | 35.1 | 35.2  | 35.3 | 34.1 | 34.9 | 35.0  | 33.2 | -     | -     | -     | 35.1 | 34.5  |

STATION : FLAMANVILLE 1

FRANCE

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 29.09.1985  
 DATE DU PREMIER COUPLAGE 04.12.1985  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.12.1986

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3817 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1382 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1330 MW

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 |      |      |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------|------|-------|-------|-------|-------|-------|---------------------------|
|  |                           | 1984 | 1985 | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |                           |      |      |       |       |       |       |       |                           |
| THERMIQUE                                      |                           |      | 234  | 15908 | 20735 | 21014 | 25147 | 21148 | 106186                    |
| ELECTRIQUE BRUTE                               | GWH                       |      | 30   | 5604  | 7494  | 7537  | 9139  | 7447  | 37251                     |
| ELECTRIQUE NETTE                               | GWH                       |      | 9    | 5222  | 7145  | 7167  | 8744  | 7086  | 35373                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    |      | 185  | 4840  | 5656  | 5757  | 7146  | 6360  | 27944                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |      | 7    | 4047  | 5536  | 5499  | 6579  | 5326  | 26995                     |
| TAUX :   |                           |      |      |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |      | 12   | 46    | 62    | 65    | 81    | 66    | 63                        |
| D'UTILISATION EN ENERGIE                       | %                         |      | 1    | 46    | 63    | 63    | 75    | 61    | 61                        |

## EXPLOITATION MEHSUELLE 1990

|   |        | JAN   | FEV  | MAR  | AVR   | MAI  | JUN  | JUL  | AOU   | SEP  | OCT  | NOV   | DEC  | ANNEE |
|---|--------|-------|------|------|-------|------|------|------|-------|------|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 758   | 324  | 137  | 0     | 23   | 747  | 969  | 979   | 876  | 964  | 957   | 920  | 7654  |
| PRODUCTION D'ENERGIE                    |        |       |      |      |       |      |      |      |       |      |      |       |      |       |
| THERMIQUE                               | GWH    | 2187  | 1030 | 440  | 0     | 130  | 2175 | 2716 | 2613  | 2214 | 2508 | 2610  | 2525 | 21148 |
| ELECTRIQUE BRUTE                        | GWH    | 776   | 344  | 146  | 0     | 26   | 774  | 972  | 920   | 777  | 886  | 928   | 898  | 7447  |
| ELECTRIQUE NETTE                        | GWH    | 740   | 316  | 130  | -3    | 1    | 739  | 936  | 884   | 742  | 850  | 892   | 860  | 7086  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1284  | 1099 | 712  |       | 558  | 1333 | 1336 | 1331  | 1330 | 1331 | 1334  | 1329 | 1336  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 443  | 195  | 0     | 60   | 631  | 737  | 744   | 666  | 727  | 720   | 693  | 6360  |
| TAUX :                                  |        |       |      |      |       |      |      |      |       |      |      |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 65.9 | 26.2 | 0.0   | 8.1  | 87.6 | 99.1 | 100.0 | 92.4 | 97.7 | 100.0 | 73.1 | 72.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 76.6  | 36.3 | 13.9 | 0.0   | 2.4  | 78.0 | 98.0 | 99.0  | 91.4 | 97.4 | 93.9  | 93.0 | 65.7  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 23.4  | 63.7 | 86.1 | 100.0 | 97.6 | 22.0 | 2.0  | 1.0   | 8.6  | 2.6  | 0.1   | 7.0  | 34.3  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0  | 74.2 | 100.0 | 24.7 | 8.4  | 0.3  | 0.3   | 0.4  | 0.0  | 0.1   | 0.0  | 17.4  |
| HORS PROGRAMME                          | %      | 23.4  | 63.7 | 11.9 | 0.0   | 72.9 | 13.6 | 1.7  | 0.7   | 8.2  | 2.6  | 0.0   | 7.0  | 16.9  |
| D'UTILISATION EN ENERGIE                | %      | 74.8  | 35.4 | 13.1 | -     | 0.1  | 77.2 | 94.6 | 89.3  | 77.3 | 85.9 | 93.1  | 85.9 | 60.8  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.8  | 30.7 | 29.5 | -     | 1.1  | 34.0 | 34.4 | 33.8  | 33.5 | 33.9 | 34.2  | 34.1 | 33.5  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 12.06.1986  
 DATE DU PREMIER COUPLAGE 18.07.1986  
 DEBUT DE L'EXPLOITATION COMMERCIALE 09.03.1987

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3817 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1382 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1330 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |       |       |       |       |                           |
| THERMIQUE                                      |        |                           |      |      | 5941 | 21038 | 20424 | 13659 | 22631 | 83692                     |
| ELECTRIQUE BRUTE                               | GWH    |                           |      |      | 1981 | 7562  | 7442  | 5041  | 8185  | 30210                     |
| ELECTRIQUE NETTE                               | GWH    |                           |      |      | 1799 | 7145  | 7098  | 4779  | 7801  | 28623                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |                           |      |      | 1912 | 6310  | 5674  | 3836  | 6392  | 24124                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |                           |      |      | 1396 | 5536  | 5341  | 3592  | 5869  | 21734                     |
| TAUX :   |        |                           |      |      |      |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      |                           |      |      | 35   | 88    | 61    | 49    | 76    | 65                        |
| D'UTILISATION EN ENERGIE                       | %      |                           |      |      | 35   | 63    | 61    | 41    | 67    | 56                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR  | AVR  | MAI   | JUN  | JUL  | AOU  | SEP  | OCT   | NOV   | DEC  | ANNEE |
|---|--------|-------|-------|------|------|-------|------|------|------|------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 0     | 0     | 446  | 912  | 982   | 887  | 955  | 894  | 897  | 988   | 957   | 905  | 8823  |
| PRODUCTION D'ENERGIE                    |        |       |       |      |      |       |      |      |      |      |       |       |      |       |
| THERMIQUE                               | GWH    | 0     | 0     | 1335 | 2614 | 2755  | 2485 | 2198 | 1581 | 2092 | 2446  | 2571  | 2555 | 22631 |
| ELECTRIQUE BRUTE                        | GWH    | 0     | 0     | 474  | 960  | 1008  | 910  | 800  | 562  | 747  | 874   | 927   | 925  | 8185  |
| ELECTRIQUE NETTE                        | GWH    | -7    | -9    | 438  | 923  | 970   | 874  | 763  | 527  | 710  | 836   | 890   | 888  | 7801  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     |       |       | 1368 | 1368 | 1360  | 1355 | 1354 | 1354 | 1352 | 1349  | 1352  | 1352 | 1368  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 0     | 0     | 386  | 698  | 744   | 670  | 626  | 494  | 621  | 744   | 720   | 689  | 6392  |
| TAUX :                                  |        |       |       |      |      |       |      |      |      |      |       |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 0.0   | 0.0   | 52.0 | 96.9 | 100.0 | 93.1 | 84.1 | 66.4 | 86.1 | 100.0 | 100.0 | 92.6 | 73.0  |
| DE DISPONIBILITE EN ENERGIE             | %      | 0.0   | 0.0   | 45.2 | 95.2 | 99.2  | 92.6 | 96.5 | 90.3 | 93.6 | 99.9  | 100.0 | 91.5 | 75.7  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 100.0 | 100.0 | 54.8 | 4.8  | 0.8   | 7.4  | 3.5  | 9.7  | 6.4  | 0.1   | 0.0   | 8.5  | 24.3  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0   | 6.7  | 0.8  | 0.0   | 0.1  | 0.0  | 0.5  | 0.0  | 0.0   | 0.0   | 0.0  | 0.7   |
| HORS PROGRAMME                          | %      | 100.0 | 100.0 | 48.1 | 4.0  | 0.8   | 7.3  | 3.5  | 9.2  | 6.4  | 0.1   | 0.0   | 8.5  | 23.6  |
| D'UTILISATION EN ENERGIE                | %      | -     | -     | 44.3 | 96.4 | 98.1  | 91.2 | 77.1 | 53.2 | 74.1 | 84.5  | 93.0  | 87.7 | 67.0  |
| DE RENDEMENT THERMIQUE NET              | %      | -     | -     | 32.8 | 35.3 | 35.2  | 35.2 | 34.7 | 33.3 | 34.0 | 34.2  | 34.6  | 34.7 | 34.5  |

STATION : CATTENOM 1

FRANCE

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 24.10.1986 | PUISSANCE MAX. POSSIBLE BRUTE   | 1362 | MW |
| DATE DU PREMIER COUPLAGE            | 13.11.1986 | PUISSANCE MAX. POSSIBLE NETTE   | 1300 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.04.1987 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |       |       |       |       |                           |
| THERMIQUE                                      |        |                           |      |      | 1162 | 22301 | 16048 | 20737 | 23822 | 84069                     |
| ELECTRIQUE BRUTE                               | GWH    |                           |      |      | 292  | 7941  | 5601  | 7198  | 8295  | 29326                     |
| ELECTRIQUE NETTE                               | GWH    |                           |      |      | 222  | 7413  | 5225  | 6786  | 7782  | 27428                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |                           |      |      | 665  | 6393  | 4369  | 5548  | 6710  | 23685                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |                           |      |      | 176  | 5860  | 4049  | 5221  | 5983  | 21289                     |
| TAUX :   |        |                           |      |      |      |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      |                           |      |      | 15   | 70    | 47    | 60    | 75    | 61                        |
| D'UTILISATION EN ENERGIE                       | %      |                           |      |      | 15   | 67    | 46    | 60    | 68    | 59                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV  | MAR  | AVR  | MAI   | JUN  | JUL  | AOU  | SEP  | OCT  | NOV  | DEC  | ANNEE |
|---|--------|-------|------|------|------|-------|------|------|------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 964   | 282  | 239  | 901  | 956   | 917  | 860  | 726  | 605  | 875  | 822  | 420  | 8567  |
| PRODUCTION D'ENERGIE                    |        |       |      |      |      |       |      |      |      |      |      |      |      |       |
| THERMIQUE                               | GWH    | 2814  | 822  | 714  | 2536 | 2365  | 2284 | 2240 | 2053 | 1756 | 2577 | 2426 | 1234 | 23822 |
| ELECTRIQUE BRUTE                        | GWH    | 1000  | 294  | 249  | 890  | 803   | 776  | 761  | 701  | 619  | 907  | 850  | 445  | 8295  |
| ELECTRIQUE NETTE                        | GWH    | 950   | 261  | 214  | 847  | 759   | 734  | 716  | 659  | 573  | 857  | 802  | 411  | 7782  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1319  | 1319 | 1310 | 1331 | 1306  | 1288 | 1299 | 1287 | 1311 | 1308 | 1302 | 1312 | 1331  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 218  | 208  | 697  | 744   | 693  | 663  | 570  | 475  | 687  | 673  | 338  | 6710  |
| TAUX :                                  |        |       |      |      |      |       |      |      |      |      |      |      |      |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 32.4 | 28.0 | 96.8 | 100.0 | 96.3 | 89.1 | 76.6 | 65.9 | 92.3 | 93.5 | 45.4 | 76.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.8  | 32.3 | 24.8 | 96.4 | 98.9  | 98.1 | 89.0 | 75.1 | 64.6 | 90.6 | 87.8 | 43.6 | 75.3  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.2   | 67.7 | 75.2 | 3.6  | 1.1   | 1.9  | 11.0 | 24.9 | 35.4 | 9.4  | 12.2 | 56.4 | 24.7  |
| DONT: PROGRAMME                         |        | 0.0   | 67.7 | 58.4 | 0.2  | 0.2   | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  | 54.5 | 14.8  |
| HORS PROGRAMME                          | %      | 0.2   | 0.0  | 16.8 | 3.4  | 0.9   | 1.9  | 10.7 | 24.9 | 35.4 | 9.4  | 12.2 | 1.9  | 9.9   |
| D'UTILISATION EN ENERGIE                | %      | 98.2  | 29.9 | 22.1 | 90.5 | 78.5  | 78.4 | 74.0 | 68.1 | 61.1 | 88.6 | 85.7 | 42.5 | 68.3  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.7  | 31.8 | 29.9 | 33.4 | 32.1  | 32.1 | 32.0 | 32.1 | 32.6 | 33.3 | 33.1 | 33.3 | 32.7  |

STATION : CATTENOM 2

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 07.08.1987 | PUISSANCE MAX. POSSIBLE BRUTE   | 1362 | MW |
| DATE DU PREMIER COUPLAGE            | 17.09.1987 | PUISSANCE MAX. POSSIBLE NETTE   | 1300 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.02.1988 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988  | 1989 | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|------|-------|------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |      |       |      |       |                           |
| THERMIQUE                                      |        |                           |      |      |      | 4347 | 24725 | 5206 | 24547 | 53825                     |
| ELECTRIQUE BRUTE                               | GWH    |                           |      |      |      | 1456 | 8653  | 1872 | 8643  | 20624                     |
| ELECTRIQUE NETTE                               | GWH    |                           |      |      |      | 1319 | 8144  | 1687 | 8126  | 19276                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |                           |      |      |      | 1700 | 7156  | 1452 | 6670  | 16978                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |                           |      |      |      | 1044 | 6377  | 1296 | 6255  | 14972                     |
| TAUX :   |        |                           |      |      |      |      |       |      |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      |                           |      |      |      | 41   | 89    | 16   | 83    | 61                        |
| D'UTILISATION EN ENERGIE                       | %      |                           |      |      |      | 41   | 73    | 15   | 71    | 52                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR   | MAI  | JUN  | JUL  | AOU   | SEP  | OCT  | NOV   | DEC  | ANNEE |
|---|--------|------|------|-------|-------|------|------|------|-------|------|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 444  | 847  | 963   | 932   | 951  | 920  | 834  | 0     | 784  | 900  | 926   | 711  | 9412  |
| PRODUCTION D'ENERGIE                    |        |      |      |       |       |      |      |      |       |      |      |       |      |       |
| THERMIQUE                               | GWH    | 1403 | 2476 | 2791  | 2711  | 2380 | 2186 | 430  | 0     | 2125 | 2622 | 2718  | 2703 | 24547 |
| ELECTRIQUE BRUTE                        | GWH    | 475  | 886  | 992   | 953   | 833  | 754  | 148  | 0     | 745  | 928  | 966   | 963  | 8643  |
| ELECTRIQUE NETTE                        | GWH    | 429  | 840  | 943   | 909   | 789  | 712  | 112  | -10   | 699  | 878  | 917   | 910  | 8126  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1317 | 1324 | 1318  | 1300  | 1321 | 1290 | 1302 |       | 1315 | 1308 | 1302  | 1318 | 1324  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 452  | 658  | 743   | 720   | 637  | 608  | 124  | 0     | 586  | 701  | 720   | 721  | 6670  |
| TAUX :                                  |        |      |      |       |       |      |      |      |       |      |      |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 60.8 | 97.9 | 100.0 | 100.0 | 85.6 | 84.4 | 16.7 | 0.0   | 81.3 | 94.2 | 100.0 | 55.9 | 76.1  |
| DE DISPONIBILITE EN ENERGIE             | %      | 45.9 | 96.9 | 99.7  | 99.6  | 98.5 | 98.4 | 86.3 | 0.0   | 83.8 | 93.1 | 99.0  | 94.2 | 82.6  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 54.1 | 3.1  | 0.3   | 0.4   | 1.5  | 1.6  | 13.7 | 100.0 | 16.2 | 6.9  | 1.0   | 5.8  | 17.4  |
| DONT: PROGRAMME                         |        | 13.2 | 0.2  | 0.2   | 0.4   | 0.1  | 0.0  | 12.9 | 100.0 | 6.9  | 0.0  | 0.0   | 0.0  | 11.4  |
| HGRS PROGRAMME                          | %      | 40.9 | 2.9  | 0.1   | 0.0   | 1.4  | 1.6  | 0.8  | 0.0   | 9.3  | 6.9  | 1.0   | 5.8  | 6.0   |
| D'UTILISATION EN ENERGIE                | %      | 44.3 | 96.1 | 97.6  | 97.2  | 81.6 | 76.0 | 11.5 | -     | 74.5 | 90.7 | 98.0  | 94.1 | 71.4  |
| DE RENDEMENT THERMIQUE NET              | %      | 30.6 | 33.9 | 33.8  | 33.5  | 33.2 | 32.5 | 25.9 | -     | 32.9 | 33.5 | 33.8  | 33.7 | 33.1  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 16.02.1990 | PUISSANCE MAX. POSSIBLE BRUTE   | 1362 | MW |
| DATE DU PREMIER COUPLAGE            | 04.10.1990 | PUISSANCE MAX. POSSIBLE NETTE   | 1300 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.02.1991 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULEE<br>AU |
|--|--------|---------------|------|------|------|------|------|------|------|---------------|
|  |        | 31.12.83      |      |      |      |      |      |      |      | 31.12.90      |
| PRODUCTION D'ENERGIE :                         |        |               |      |      |      |      |      |      |      |               |
| THERMIQUE                                      |        |               |      |      |      |      |      |      | 5280 | 5280          |
| ELECTRIQUE BRUTE                               | GWH    |               |      |      |      |      |      |      | 1726 | 1726          |
| ELECTRIQUE NETTE                               | GWH    |               |      |      |      |      |      |      | 1540 | 1540          |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |               |      |      |      |      |      |      | 1961 | 1961          |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |               |      |      |      |      |      |      | 1183 | 1183          |
| TAUX :   |        |               |      |      |      |      |      |      |      |               |
| DE DISPONIBILITE EN ENERGIE %                  |        |               |      |      |      |      |      |      | 65   | 65            |
| D'UTILISATION EN ENERGIE %                     |        |               |      |      |      |      |      |      | 14   | 14            |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN | FEV | MAR | AVR | MAI | JUN | JUL | AOU | SEP | OCT  | NOV   | DEC  | ANNEE |
|---|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    |     |     |     |     |     |     |     |     |     | 430  | 0     | 461  | 7410  |
| PRODUCTION D'ENERGIE                    |        |     |     |     |     |     |     |     |     |     |      |       |      |       |
| THERMIQUE                               | GWH    |     |     |     |     |     |     |     |     |     | 1299 | 0     | 1380 | 5280  |
| ELECTRIQUE BRUTE                        | GWH    |     |     |     |     |     |     |     |     |     | 455  | 0     | 485  | 1726  |
| ELECTRIQUE NETTE                        | GWH    |     |     |     |     |     |     |     |     |     | 422  | -4    | 450  | 1540  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        |     |     |     |     |     |     |     |     |     | 1361 |       | 1312 | 1361  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES |     |     |     |     |     |     |     |     |     | 396  | 0     | 388  | 1961  |
| TAUX :                                  |        |     |     |     |     |     |     |     |     |     |      |       |      |       |
| D'UTILISATION EN TEMPS %                |        |     |     |     |     |     |     |     |     |     | 53.2 | 0.0   | 52.2 | 22.4  |
| DE DISPONIBILITE EN ENERGIE %           |        |     |     |     |     |     |     |     |     |     | 44.5 | 0.0   | 47.8 | 65.1  |
| D'INDISPONIBILITE EN ENERGIE %          |        |     |     |     |     |     |     |     |     |     | 55.5 | 100.0 | 52.2 | 34.9  |
| DONT: PROGRAMME                         |        |     |     |     |     |     |     |     |     |     | 44.7 | 100.0 | 6.8  | 24.3  |
| HORS PROGRAMME %                        |        |     |     |     |     |     |     |     |     |     | 10.8 | 0.0   | 45.4 | 10.6  |
| D'UTILISATION EN ENERGIE %              |        |     |     |     |     |     |     |     |     |     | 43.7 | -     | 46.5 | 13.5  |
| DE RENDEMENT THERMIQUE NET %            |        |     |     |     |     |     |     |     |     |     | 32.5 | -     | 32.6 | 29.2  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 09.09.1987 | PUISSANCE MAX. POSSIBLE BRUTE   | 1363 | MW |
| DATE DU PREMIER COUPLAGE            | 14.10.1987 | PUISSANCE MAX. POSSIBLE NETTE   | 1310 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.06.1988 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU |      |      |      |      |       |       |       | CUMULEE<br>AU |
|--|--------|---------------|------|------|------|------|-------|-------|-------|---------------|
|  |        | 31.12.83      | 1984 | 1985 | 1986 | 1987 | 1988  | 1989  | 1990  | 31.12.90      |
| PRODUCTION D'ENERGIE :                         |        |               |      |      |      |      |       |       |       |               |
| THERMIQUE                                      |        |               |      |      |      | 2479 | 19708 | 15163 | 23281 | 66630         |
| ELECTRIQUE BRUTE                               | GWH    |               |      |      |      | 717  | 6697  | 5380  | 8262  | 21056         |
| ELECTRIQUE NETTE                               | GWH    |               |      |      |      | 623  | 6252  | 5118  | 7903  | 19897         |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES |               |      |      |      | 1184 | 6478  | 4244  | 6408  | 17314         |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES |               |      |      |      | 489  | 4770  | 3907  | 6036  | 15201         |
| TAUX :   |        |               |      |      |      |      |       |       |       |               |
| DE DISPONIBILITE EN ENERGIE                    | %      |               |      |      |      | 27   | 69    | 46    | 71    | 60            |
| D'UTILISATION EN ENERGIE                       | %      |               |      |      |      | 26   | 54    | 45    | 69    | 54            |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR  | AVR  | MAI  | JUN  | JUL  | AOU   | SEP  | OCT   | NOV   | DEC  | ANNEE |
|---|--------|------|-------|------|------|------|------|------|-------|------|-------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 947  | 870   | 948  | 839  | 857  | 861  | 758  | 972   | 655  | 0     | 0     | 454  | 8161  |
| PRODUCTION D'ENERGIE                    |        |      |       |      |      |      |      |      |       |      |       |       |      |       |
| THERMIQUE                               | GWH    | 2673 | 2483  | 2698 | 2441 | 2472 | 2489 | 2191 | 2672  | 1810 | 0     | 0     | 1351 | 23281 |
| ELECTRIQUE BRUTE                        | GWH    | 961  | 881   | 962  | 860  | 863  | 872  | 775  | 977   | 646  | 0     | 0     | 167  | 8262  |
| ELECTRIQUE NETTE                        | GWH    | 924  | 848   | 926  | 825  | 825  | 837  | 740  | 940   | 617  | -1    | -8    | 433  | 7903  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1301 | 1319  | 1312 | 1322 | 1310 | 1325 | 1316 | 1288  | 1288 |       |       | 1336 | 1336  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 740  | 672   | 731  | 655  | 675  | 667  | 604  | 744   | 507  | 0     | 0     | 413  | 6408  |
| TAUX :                                  |        |      |       |      |      |      |      |      |       |      |       |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 99.5 | 100.0 | 98.4 | 91.0 | 90.7 | 92.6 | 81.2 | 100.0 | 70.3 | 0.0   | 0.0   | 55.5 | 73.2  |
| DE DISPONIBILITE EN ENERGIE             | %      | 97.2 | 99.0  | 97.4 | 89.1 | 88.0 | 91.3 | 77.8 | 99.7  | 69.4 | 0.0   | 0.0   | 46.6 | 71.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 2.8  | 1.0   | 2.6  | 10.9 | 12.0 | 8.7  | 22.2 | 0.3   | 30.6 | 100.0 | 100.0 | 53.4 | 28.9  |
| DONT: PROGRAMME                         |        | 0.2  | 0.7   | 0.5  | 0.1  | 0.0  | 0.1  | 0.1  | 0.0   | 29.8 | 100.0 | 85.3  | 8.4  | 18.7  |
| HORS PROGRAMME                          | %      | 2.6  | 0.3   | 2.1  | 10.8 | 12.0 | 8.6  | 22.1 | 0.3   | 0.8  | 0.0   | 16.7  | 45.0 | 10.2  |
| D'UTILISATION EN ENERGIE                | %      | 94.8 | 96.3  | 95.1 | 87.4 | 84.7 | 88.7 | 75.9 | 96.5  | 65.3 | -     | -     | 44.5 | 68.9  |
| DE RENDEMENT THERMIQUE NET              | %      | 34.6 | 34.1  | 34.3 | 33.8 | 33.4 | 33.6 | 33.8 | 35.2  | 34.1 | -     | -     | 32.1 | 33.9  |



STATION : BELLEVILLE 2

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 25.05.1988 | PUISSANCE MAX. POSSIBLE BRUTE   | 1363 | MW |
| DATE DU PREMIER COUPLAGE            | 06.07.1988 | PUISSANCE MAX. POSSIBLE NETTE   | 1310 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.01.1989 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |     | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|-----|---------------------------|------|------|------|------|------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |     |                           |      |      |      |      |      |       |       |                           |
| THERMIQUE                                      |     |                           |      |      |      |      | 6970 | 25222 | 18320 | 50512                     |
| ELECTRIQUE BRUTE                               | GWH |                           |      |      |      |      | 2261 | 8907  | 6606  | 17774                     |
| ELECTRIQUE NETTE                               | GWH |                           |      |      |      |      | 2090 | 8506  | 6311  | 16907                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |     | NEURES                    |      |      |      |      | 2477 | 7419  | 5350  | 15246                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |     | NEURES                    |      |      |      |      | 1608 | 6491  | 4818  | 12917                     |
| TAUX :   |     |                           |      |      |      |      |      |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |     | %                         |      |      |      |      | 39   | 87    | 57    | 65                        |
| D'UTILISATION EN ENERGIE                       |     | %                         |      |      |      |      | 37   | 74    | 55    | 59                        |

EXPLOITATION MENSUELLE 1990

|   |     | JAN    | FEV  | MAR   | AVR   | MAI   | JUN  | JUL  | AOU   | SEP  | OCT   | NOV  | DEC   | ANNEE |      |
|---|-----|--------|------|-------|-------|-------|------|------|-------|------|-------|------|-------|-------|------|
| DISPONIBILITE EN ENERGIE                | GWH | 829    | 52   | 0     | 0     | 0     | 161  | 872  | 967   | 847  | 917   | 908  | 973   | 6526  |      |
| PRODUCTION D'ENERGIE                    |     |        |      |       |       |       |      |      |       |      |       |      |       |       |      |
| THERMIQUE                               | GWH | 2374   | 132  | 0     | 0     | 0     | 569  | 2496 | 2648  | 2329 | 2503  | 2529 | 2742  | 18320 |      |
| ELECTRIQUE BRUTE                        | GWH | 860    | 47   | 0     | 0     | 0     | 171  | 889  | 957   | 848  | 913   | 924  | 996   | 6606  |      |
| ELECTRIQUE NETTE                        | GWH | 824    | 40   | -0    | -2    | -7    | 147  | 855  | 921   | 813  | 877   | 888  | 959   | 6311  |      |
| PUISSANCE MAX. ATTEINTE NETTE           | MW  | 1249   | 980  |       |       |       | 1288 | 1301 | 1274  | 1293 | 1300  | 1321 | 1322  | 1322  |      |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |     | HEURES | 744  | 50    | 0     | 0     | 0    | 266  | 699   | 744  | 660   | 744  | 639   | 744   | 5350 |
| TAUX :                                  |     |        |      |       |       |       |      |      |       |      |       |      |       |       |      |
| D'UTILISATION EN TEMPS                  | %   | 100.0  | 7.4  | 0.0   | 0.0   | 0.0   | 36.9 | 94.0 | 100.0 | 91.5 | 100.0 | 97.1 | 100.0 | 61.1  |      |
| DE DISPONIBILITE EN ENERGIE             | %   | 85.1   | 5.9  | 0.0   | 0.0   | 0.0   | 17.1 | 89.6 | 99.2  | 89.6 | 94.1  | 96.3 | 99.9  | 56.9  |      |
| D'INDISPONIBILITE EN ENERGIE            | %   | 14.9   | 94.1 | 100.0 | 100.0 | 100.0 | 82.9 | 10.4 | 0.8   | 10.4 | 5.9   | 3.7  | 0.1   | 43.1  |      |
| DONT: PROGRAMME                         |     |        | 0.0  | 92.7  | 100.0 | 100.0 | 64.5 | 14.3 | 0.8   | 0.0  | 0.1   | 0.0  | 0.0   | 30.5  |      |
| HORS PROGRAMME                          |     | %      | 14.9 | 1.4   | 0.0   | 0.0   | 35.5 | 68.6 | 9.6   | 0.8  | 10.4  | 5.8  | 3.7   | 0.1   | 12.6 |
| D'UTILISATION EN ENERGIE                | %   | 84.6   | 4.6  | -     | -     | -     | 15.5 | 87.7 | 94.5  | 86.1 | 90.0  | 94.1 | 98.4  | 55.0  |      |
| DE RENDEMENT THERMIQUE NET              | %   | 34.7   | 30.4 | -     | -     | -     | 25.8 | 34.2 | 34.8  | 34.9 | 35.0  | 35.1 | 35.0  | 34.4  |      |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 12.09.1987 | PUISSANCE MAX. POSSIBLE BRUTE   | 1363 | MW |
| DATE DU PREMIER COUPLAGE            | 21.10.1987 | PUISSANCE MAX. POSSIBLE NETTE   | 1310 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 24.02.1988 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE             |  | CUMULEE  |      |      |      |      |       |      |       | CUMULEE  |          |
|---|--|----------|------|------|------|------|-------|------|-------|----------|----------|
|   |  | AU       | 1984 | 1985 | 1986 | 1987 | 1988  | 1989 | 1990  | AU       | 31.12.90 |
|   |  | 31.12.83 |      |      |      |      |       |      |       | 31.12.90 |          |
| PRODUCTION D'ENERGIE :                      |  |          |      |      |      |      |       |      |       |          |          |
| THERMIQUE                                   |  |          |      |      |      | 2050 | 23746 | 9408 | 20014 | 55218    |          |
| ELECTRIQUE BRUTE                            |  | GWH      |      |      |      | 578  | 8211  | 3313 | 6987  | 19088    |          |
| ELECTRIQUE NETTE                            |  | GWH      |      |      |      | 478  | 7720  | 3097 | 6595  | 17891    |          |
| DUREE DE MARCHE DES TURBOGENERATEURS        |  | HEURES   |      |      |      | 893  | 7324  | 2663 | 5590  | 14470    |          |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE |  | HEURES   |      |      |      | 375  | 5999  | 2365 | 5037  | 13777    |          |
| TAUX :                                      |  |          |      |      |      |      |       |      |       |          |          |
| DE DISPONIBILITE EN ENERGIE                 |  | %        |      |      |      | 23   | 86    | 28   | 68    | 58       |          |
| D'UTILISATION EN ENERGIE                    |  | %        |      |      |      | 22   | 68    | 27   | 58    | 49       |          |

## EXPLOITATION MENSUELLE 1990

|                                      |  | JAN    | FEV   | MAR  | AVR  | MAI  | JUN  | JUL  | AOU  | SEP  | OCT  | NOV   | DEC  | ANNEE |       |
|--------------------------------------|--|--------|-------|------|------|------|------|------|------|------|------|-------|------|-------|-------|
| DISPONIBILITE EN ENERGIE             |  | GWH    | 0     | 53   | 842  | 871  | 949  | 937  | 960  | 933  | 934  | 970   | 73   | 223   | 7745  |
| PRODUCTION D'ENERGIE                 |  |        |       |      |      |      |      |      |      |      |      |       |      |       |       |
| THERMIQUE                            |  | GWH    | 41    | 192  | 2440 | 2460 | 2712 | 2461 | 2359 | 1124 | 2529 | 2776  | 216  | 705   | 20014 |
| ELECTRIQUE BRUTE                     |  | GWH    | 0     | 59   | 866  | 880  | 953  | 859  | 819  | 384  | 886  | 969   | 76   | 236   | 6987  |
| ELECTRIQUE NETTE                     |  | GWH    | -18   | 36   | 828  | 843  | 914  | 822  | 779  | 346  | 849  | 931   | 61   | 204   | 6595  |
| PUISSANCE MAX. ATTEINTE NETTE        |  | MW     |       | 974  | 1327 | 1308 | 1297 | 1300 | 1290 | 1285 | 1308 | 1297  | 1303 | 1026  | 1327  |
| DUREE DE MARCHE DES TURBOGENERATEURS |  | HEURES | 0     | 105  | 669  | 668  | 734  | 666  | 664  | 326  | 696  | 744   | 66   | 252   | 5590  |
| TAUX :                               |  |        |       |      |      |      |      |      |      |      |      |       |      |       |       |
| D'UTILISATION EN TEMPS               |  | %      | 0.0   | 15.6 | 90.0 | 92.8 | 98.7 | 92.5 | 89.2 | 43.8 | 96.5 | 100.0 | 9.2  | 33.9  | 63.8  |
| DE DISPONIBILITE EN ENERGIE          |  | %      | 0.0   | 6.2  | 86.5 | 92.4 | 97.3 | 99.4 | 98.6 | 95.8 | 98.9 | 99.5  | 7.8  | 22.9  | 67.6  |
| D'INDISPONIBILITE EN ENERGIE         |  | %      | 100.0 | 93.8 | 13.5 | 7.6  | 2.7  | 0.6  | 1.4  | 4.2  | 1.1  | 0.5   | 92.2 | 77.1  | 32.4  |
| DONT: PROGRAMME                      |  |        | 0.0   | 10.5 | 1.7  | 0.0  | 0.1  | 0.1  | 0.2  | 0.0  | 0.0  | 0.1   | 92.2 | 29.0  | 11.0  |
| HORS PROGRAMME                       |  | %      | 100.0 | 83.3 | 11.8 | 7.6  | 2.6  | 0.5  | 1.2  | 4.2  | 1.1  | 0.4   | 0.0  | 43.1  | 21.4  |
| D'UTILISATION EN ENERGIE             |  | %      | -     | 4.1  | 85.1 | 89.4 | 93.8 | 87.2 | 79.9 | 35.5 | 89.9 | 95.5  | 6.5  | 20.9  | 57.5  |
| DE RENDEMENT THERMIQUE NET           |  | %      | -     | 19.0 | 33.9 | 34.3 | 33.7 | 33.4 | 33.0 | 30.8 | 33.6 | 33.5  | 20.2 | 23.9  | 33.0  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 04.10.1988  
 DATE DU PREMIER COUPLAGE 14.12.1988  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.05.1989

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 3817 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1363 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1310 MW

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------|------|------|------|------|-------|-------|---------------------------|
|  |                           |      |      |      |      |      |       |       |                           |
| PRODUCTION D'ENERGIE :                         |                           |      |      |      |      |      |       |       |                           |
| THERMIQUE                                      |                           |      |      |      |      | 467  | 22363 | 22200 | 45029                     |
| ELECTRIQUE BRUTE                               | GWH                       |      |      |      |      | 68   | 7851  | 7872  | 15791                     |
| ELECTRIQUE NETTE                               | GWH                       |      |      |      |      | 50   | 7458  | 7515  | 15022                     |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS        | HEURES                    |      |      |      |      | 198  | 6660  | 6094  | 12952                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |      |      |      |      | 38   | 5694  | 5738  | 11470                     |
| TAUX :   |                           |      |      |      |      |      |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |      |      |      |      | 8    | 69    | 68    | 67                        |
| D'UTILISATION EN ENERGIE                       | %                         |      |      |      |      | 9    | 65    | 66    | 64                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV  | MAR   | AVR   | MAI  | JUN   | JUL   | AOU  | SEP  | OCT  | NOV   | DEC  | ANNEE |
|---|--------|------|------|-------|-------|------|-------|-------|------|------|------|-------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 946  | 840  | 970   | 879   | 105  | 0     | 0     | 530  | 942  | 943  | 942   | 735  | 7832  |
| PRODUCTION D'ENERGIE                    |        |      |      |       |       |      |       |       |      |      |      |       |      |       |
| THERMIQUE                               | GWH    | 2669 | 2381 | 2773  | 2569  | 318  | 0     | 0     | 1545 | 2461 | 2676 | 2689  | 2118 | 22200 |
| ELECTRIQUE BRUTE                        | GWH    | 954  | 844  | 989   | 917   | 110  | 0     | 0     | 522  | 866  | 949  | 962   | 758  | 7872  |
| ELECTRIQUE NETTE                        | GWH    | 916  | 810  | 951   | 881   | 95   | -4    | -13   | 484  | 831  | 914  | 927   | 722  | 7515  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1330 | 1316 | 1350  | 1321  | 1111 |       |       | 1322 | 1314 | 1320 | 1329  | 1351 | 1351  |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS | HEURES | 740  | 644  | 743   | 720   | 96   | 0     | 0     | 480  | 663  | 723  | 720   | 565  | 6094  |
| TAUX :                                  |        |      |      |       |       |      |       |       |      |      |      |       |      |       |
| D'UTILISATION EN TEMPS                  | %      | 99.5 | 95.8 | 100.0 | 100.0 | 12.9 | 0.0   | 0.0   | 64.5 | 92.0 | 97.2 | 100.0 | 75.9 | 69.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 97.1 | 95.5 | 99.7  | 93.3  | 10.7 | 0.0   | 0.0   | 54.4 | 99.8 | 96.7 | 100.0 | 75.4 | 68.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 2.9  | 4.5  | 0.3   | 6.7   | 89.3 | 100.0 | 100.0 | 45.6 | 0.2  | 3.3  | 0.0   | 24.6 | 31.8  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0  | 0.0   | 0.0   | 87.2 | 100.0 | 100.0 | 42.9 | 0.0  | 0.1  | 0.0   | 0.1  | 27.8  |
| HORS PROGRAMME                          | %      | 2.9  | 4.5  | 0.3   | 6.7   | 2.1  | 0.0   | 0.0   | 2.7  | 0.2  | 3.2  | 0.0   | 24.5 | 4.0   |
| D'UTILISATION EN ENERGIE                | %      | 94.0 | 92.1 | 97.7  | 93.4  | 9.8  | -     | -     | 49.6 | 88.0 | 93.7 | 98.3  | 74.1 | 65.5  |
| DE RENDEMENT THERMIQUE NET              | %      | 34.3 | 34.0 | 34.3  | 34.3  | 30.1 | -     | -     | 31.3 | 33.8 | 34.1 | 34.5  | 34.1 | 33.9  |

STATION : GOLFECH 1

FRANCE

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 24.04.1990 | PUISSANCE MAX. POSSIBLE BRUTE   | 1365 | MW |
| DATE DU PREMIER COUPLAGE            | 11.06.1990 | PUISSANCE MAX. POSSIBLE NETTE   | 1310 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.02.1991 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE             |        | CUMULEE AU 31.12.83 |      |      |      |      |      |      |  | CUMULEE AU 31.12.90 |  |
|---|--------|---------------------|------|------|------|------|------|------|--|---------------------|--|
|   |        | 1984                | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |  |                     |  |
| PRODUCTION D'ENERGIE :                      |        |                     |      |      |      |      |      |      |  |                     |  |
| THERMIQUE                                   |        |                     |      |      |      |      |      | 6038 |  | 6038                |  |
| ELECTRIQUE BRUTE                            | GWH    |                     |      |      |      |      |      | 2008 |  | 2008                |  |
| ELECTRIQUE NETTE                            | GWH    |                     |      |      |      |      |      | 1785 |  | 1785                |  |
| DUREE DE MARCHE DES TURBOGENERATEURS        | HEURES |                     |      |      |      |      |      | 2092 |  | 2092                |  |
| DUREE D'UTILISATION PUISSANCE MAX. POSSIBLE | HEURES |                     |      |      |      |      |      | 1367 |  | 1367                |  |
| TAUX :                                      |        |                     |      |      |      |      |      |      |  |                     |  |
| DE DISPONIBILITE EN ENERGIE                 | %      |                     |      |      |      |      |      | 60   |  | 60                  |  |
| D'UTILISATION EN ENERGIE                    | %      |                     |      |      |      |      |      | 16   |  | 16                  |  |

## EXPLOITATION MENSUELLE 1990

|                                      |        | JAN | FEV | MAR | AVR | MAI | JUN  | JUL  | AOU  | SEP  | OCT  | NOV  | DEC  | ANNEE |
|--------------------------------------|--------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE             | GWH    |     |     |     |     |     | 204  | 254  | 780  | 340  | 1    | 390  | 209  | 6924  |
| PRODUCTION D'ENERGIE :               |        |     |     |     |     |     |      |      |      |      |      |      |      |       |
| THERMIQUE                            | GWH    |     |     |     |     |     | 334  | 794  | 2114 | 986  | 13   | 1180 | 617  | 6038  |
| ELECTRIQUE BRUTE                     | GWH    |     |     |     |     |     | 20   | 237  | 766  | 354  | 1    | 411  | 220  | 2008  |
| ELECTRIQUE NETTE                     | GWH    |     |     |     |     |     | -8   | 201  | 729  | 330  | -25  | 375  | 185  | 1785  |
| PUISSANCE MAX. ATTEINTE NETTE        | MW     |     |     |     |     |     | 305  | 625  | 1311 | 1305 | 479  | 1354 | 1357 | 1357  |
| DUREE DE MARCHE DES TURBOGENERATEURS | HEURES |     |     |     |     |     | 105  | 497  | 663  | 293  | 5    | 355  | 174  | 2092  |
| TAUX :                               |        |     |     |     |     |     |      |      |      |      |      |      |      |       |
| D'UTILISATION EN TEMPS               | %      |     |     |     |     |     | 14.6 | 66.8 | 89.1 | 40.6 | 0.7  | 49.3 | 23.4 | 23.9  |
| DE DISPONIBILITE EN ENERGIE          | %      |     |     |     |     |     | 21.7 | 26.0 | 80.0 | 36.0 | 0.1  | 41.5 | 21.4 | 60.3  |
| D'INDISPONIBILITE EN ENERGIE         | %      |     |     |     |     |     | 78.3 | 74.0 | 20.0 | 64.0 | 99.9 | 58.5 | 78.6 | 39.7  |
| DONT: PROGRAMME                      |        |     |     |     |     |     | 78.3 | 52.9 | 20.0 | 64.0 | 99.9 | 7.8  | 0.5  | 27.1  |
| HORS PROGRAMME                       | %      |     |     |     |     |     | 0.0  | 21.1 | 0.0  | 0.0  | 0.0  | 50.7 | 78.1 | 12.6  |
| D'UTILISATION EN ENERGIE             | %      |     |     |     |     |     | -    | 20.6 | 74.8 | 35.0 | -    | 39.8 | 19.0 | 15.6  |
| DE RENDEMENT THERMIQUE NET           | %      |     |     |     |     |     | -    | 25.3 | 34.5 | 33.5 | -    | 31.8 | 30.0 | 29.6  |

STATION : PENLY 1

FRANCE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 3817 | MW |
| DATE DE PREMIERE CRITICITE          | 01.04.1990 | PUISSANCE MAX. POSSIBLE BRUTE   | 1382 | MW |
| DATE DU PREMIER COUPLAGE            | 04.05.1990 | PUISSANCE MAX. POSSIBLE NETTE   | 1330 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 03.12.1990 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 |      |      |      |      |      |      |      | 1990 | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------|------|------|------|------|------|------|------|---------------------------|
|  |                           | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |      |      |                           |
| PRODUCTION D'ENERGIE :                         |                           |      |      |      |      |      |      |      |      |                           |
| THERMIQUE                                      |                           |      |      |      |      |      |      | 9180 | 9180 |                           |
| ELECTRIQUE BRUTE                               | GWH                       |      |      |      |      |      |      | 3124 | 3124 |                           |
| ELECTRIQUE NETTE                               | GWH                       |      |      |      |      |      |      | 2879 | 2879 |                           |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    |      |      |      |      |      |      | 3100 | 3100 |                           |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |      |      |      |      |      |      | 2164 | 2164 |                           |
| TAUX :   |                           |      |      |      |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |      |      |      |      |      |      | 59   | 59   |                           |
| D'UTILISATION EN ENERGIE                       | %                         |      |      |      |      |      |      | 25   | 25   |                           |

EXPLOITATION MENSUELLE 1990

|   |        | JAN | FEV | MAR | AVR | MAI  | JUN  | JUL  | AOU  | SEP   | OCT  | NOV  | DEC  | ANNEE |
|---|--------|-----|-----|-----|-----|------|------|------|------|-------|------|------|------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    |     |     |     |     | 124  | 151  | 613  | 418  | 0     | 110  | 674  | 979  | 6899  |
| PRODUCTION D'ENERGIE                    |        |     |     |     |     |      |      |      |      |       |      |      |      |       |
| THERMIQUE                               | GWH    |     |     |     |     | 402  | 606  | 1850 | 1201 | 0     | 335  | 2024 | 2762 | 9180  |
| ELECTRIQUE BRUTE                        | GWH    |     |     |     |     | 37   | 170  | 648  | 437  | 0     | 115  | 710  | 1007 | 3124  |
| ELECTRIQUE NETTE                        | GWH    |     |     |     |     | 5    | 134  | 609  | 409  | -8    | 88   | 670  | 971  | 2879  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     |     |     |     |     | 264  | 602  | 1319 | 1338 |       | 1332 | 1350 | 1362 | 1362  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES |     |     |     |     | 169  | 402  | 670  | 365  | 0     | 105  | 651  | 738  | 3100  |
| TAUX :                                  |        |     |     |     |     |      |      |      |      |       |      |      |      |       |
| D'UTILISATION EN TEMPS                  | %      |     |     |     |     | 22.7 | 55.8 | 90.1 | 49.1 | 0.0   | 14.1 | 90.4 | 99.2 | 35.4  |
| DE DISPONIBILITE EN ENERGIE             | %      |     |     |     |     | 12.6 | 15.8 | 61.9 | 42.2 | 0.0   | 11.0 | 70.3 | 98.9 | 59.2  |
| D'INDISPONIBILITE EN ENERGIE            | %      |     |     |     |     | 87.4 | 84.2 | 38.1 | 57.8 | 100.0 | 89.0 | 29.7 | 1.1  | 40.8  |
| DONT: PROGRAMME                         |        |     |     |     |     | 87.4 | 58.0 | 29.8 | 50.8 | 76.6  | 2.7  | 4.0  | 0.1  | 25.9  |
| HORS PROGRAMME                          | %      |     |     |     |     | 0.0  | 26.2 | 8.3  | 7.0  | 23.4  | 86.3 | 25.7 | 1.0  | 14.9  |
| D'UTILISATION EN ENERGIE                | %      |     |     |     |     | 0.5  | 14.0 | 61.5 | 41.4 | -     | 8.9  | 70.0 | 98.2 | 24.7  |
| DE RENDEMENT THERMIQUE NET              | %      |     |     |     |     | 1.3  | 22.2 | 32.9 | 34.1 | -     | 26.3 | 33.1 | 35.2 | 31.4  |

STATION : CAORSO

ITALY

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | BWR        | THERMAL CAPACITY OF REACTOR | 2651 | MW |
| FIRST CRITICALITY          | 31.12.1977 | INSTALLED CAPACITY          | 882  | MW |
| FIRST CONNECTION TO GRID   | 23.05.1978 | MAXIMUM OUTPUT CAPACITY     | 860  | MW |
| FIRST COMMERCIAL OPERATION | 01.12.1981 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED AT 31.12.83 | 1984  | 1985  | 1986  | 1987 | 1988 | 1989 | 1990 | CUMULATED AT 31.12.90 |
|---|-------|-----------------------|-------|-------|-------|------|------|------|------|-----------------------|
| PRODUCTION OF ENERGY :                    |       |                       |       |       |       |      |      |      |      |                       |
| THERMAL                                   | GWH   | 46664                 | 13050 | 13786 | 16858 | 0    | 0    | 0    | 0    | 90358                 |
| ELECTRICAL GENERATED                      | GWH   | 14937                 | 4205  | 4420  | 5462  | 0    | 0    | 0    | 0    | 29024                 |
| ELECTRICAL NET                            | GWH   | 14359                 | 4063  | 4267  | 5291  | -86  | -56  | -43  | -35  | 27757                 |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                       |       |       |       |      |      |      |      |                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY | HOURS | 22746                 | 5769  | 6070  | 6648  | 0    | 0    | 0    | 0    | 41233                 |
| FACTOR OF :                               |       |                       |       |       |       |      |      |      |      |                       |
| ENERGY AVAILABILITY                       | %     | 40                    | 55    | 57    | 70    | 0    | 0    | 0    | 0    | 32                    |
| LOAD FACTOR                               | %     | 37                    | 54    | 57    | 70    | -    | -    | -    | -    | 31                    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELECTRICAL GENERATED                  | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELECTRICAL NET                        | GWH   | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -2    | -35   |
| MAX. ELECTRICAL POWER NET             | MW    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ENERGY AVAILABILITY                   | %     | 0.0   | 0.0   | -0.1  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ENERGY UNAVAILABILITY                 | %     | 100.0 | 100.0 | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| UNPLANNED                             | %     | 100.0 | 100.0 | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| LOAD FACTOR                           | %     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| NET THERMAL EFFICIENCY                | %     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |

STATION : ENRICO FERMI (TRINO)

ITALY

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |     |    |
|----------------------------|------------|-----------------------------|-----|----|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 870 | MW |
| FIRST CRITICALITY          | 21.06.1964 | INSTALLED CAPACITY          | 270 | MW |
| FIRST CONNECTION TO GRID   | 22.10.1964 | MAXIMUM OUTPUT CAPACITY     | 260 | MW |
| FIRST COMMERCIAL OPERATION | 01.01.1965 |                             |     |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED AT 31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED AT 31.12.90 |
|---|-------|-----------------------|------|------|------|------|------|------|------|-----------------------|
| PRODUCTION OF ENERGY :                    |       |                       |      |      |      |      |      |      |      |                       |
| THERMAL                                   | GWH   | 62649                 | 5503 | 4354 | 6843 | 566  | 0    | 0    | 0    | 79915                 |
| ELECTRICAL GENERATED                      | GWH   | 19681                 | 1703 | 1358 | 2110 | 174  | 0    | 0    | 0    | 25026                 |
| ELECTRICAL NET                            | GWH   | 18795                 | 1628 | 1291 | 2016 | 150  | -11  | -11  | -11  | 23844                 |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                       |      |      |      |      |      |      |      |                       |
|   | HOURS | 83797                 | 6415 | 5752 | 8413 | 1903 | 0    | 0    | 0    | 106280                |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                       |      |      |      |      |      |      |      |                       |
|   | HOURS | 75660                 | 6307 | 4967 | 7753 | 578  | 0    | 0    | 0    | 95264                 |
| FACTOR OF :                               |       |                       |      |      |      |      |      |      |      |                       |
| ENERGY AVAILABILITY                       | %     | 50                    | 73   | 57   | 89   | 7    | 0    | 0    | 0    | 45                    |
| LOAD FACTOR                               | %     | 45                    | 72   | 57   | 89   | 7    | -    | -    | -    | 41                    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELECTRICAL GENERATED                  | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELECTRICAL NET                        | GWH   | -0    | -0    | -0    | -0    | -0    | -0    | -0    | -0    | -0    | -0    | -0    | -0    | -11   |
| MAX. ELECTRICAL POWER NET             | MW    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                                       | HOURS | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ENERGY AVAILABILITY                   | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ENERGY UNAVAILABILITY                 | %     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| UNPLANNED                             | %     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| LOAD FACTOR                           | %     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| NET THERMAL EFFICIENCY                | %     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |

STATION : DODEWAARD

NETHERLANDS

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |     |    |
|----------------------------|------------|-----------------------------|-----|----|
| TYPE OF REACTOR            | BWR        | THERMAL CAPACITY OF REACTOR | 183 | MW |
| FIRST CRITICALITY          | 24.06.1968 | INSTALLED CAPACITY          | 58  | MW |
| FIRST CONNECTION TO GRID   | 18.10.1968 | MAXIMUM OUTPUT CAPACITY     | 55  | MW |
| FIRST COMMERCIAL OPERATION | 15.01.1969 |                             |     |    |

ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                   | GWH   | 17695                       | 1439 | 1377 | 1322 | 1352 | 1432 | 1220 | 1370 | 27206                       |
| ELECTRICAL GENERATED                      | GWH   | 5729                        | 469  | 450  | 431  | 435  | 458  | 385  | 432  | 8789                        |
| ELECTRICAL NET                            | GWH   | 5417                        | 444  | 426  | 407  | 411  | 432  | 362  | 409  | 8308                        |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 110450                      | 8160 | 8119 | 7766 | 7672 | 8020 | 6863 | 7656 | 164706                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 105317                      | 8143 | 7744 | 7402 | 7472 | 7906 | 6631 | 7052 | 157667                      |
| FACTOR OF :                               |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                       | X     | 82                          | 93   | 92   | 88   | 100  | 100  | 80   | 86   | 85                          |
| LOAD FACTOR                               | X     | 79                          | 93   | 88   | 85   | 85   | 90   | 76   | 81   | 81                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB  | MAR   | APR   | MAY  | JUN   | JUL   | AUG   | SEP   | OCT   | NOV  | DEC   | YEAR |
|---------------------------------------|-------|------|------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 8    | 2    | 43    | 42    | 41   | 42    | 43    | 43    | 42    | 43    | 41   | 43    | 433  |
| PRODUCTION OF ENERGY :                |       |      |      |       |       |      |       |       |       |       |       |      |       |      |
| THERMAL ENERGY                        | GWH   | 18   | 35   | 133   | 130   | 129  | 131   | 136   | 136   | 130   | 136   | 128  | 130   | 1370 |
| ELECTRICAL GENERATED                  | GWH   | 5    | 11   | 42    | 42    | 40   | 41    | 42    | 42    | 41    | 43    | 41   | 42    | 432  |
| ELECTRICAL NET                        | GWH   | 4    | 10   | 40    | 39    | 38   | 39    | 40    | 40    | 39    | 41    | 39   | 40    | 409  |
| MAX. ELECTRICAL POWER NET             | MW    | 52   | 54   | 55    | 55    | 55   | 55    | 54    | 54    | 54    | 55    | 56   | 55    | 56   |
| UTILISATION PERIOD OF TURBOGENERATORS |       |      |      |       |       |      |       |       |       |       |       |      |       |      |
|                                       | HOURS | 115  | 235  | 744   | 720   | 715  | 720   | 744   | 744   | 720   | 744   | 711  | 744   | 7656 |
| FACTOR OF :                           |       |      |      |       |       |      |       |       |       |       |       |      |       |      |
| TIME UTILISATION                      | X     | 15.5 | 35.0 | 100.1 | 100.0 | 96.1 | 100.0 | 100.0 | 100.0 | 99.9  | 100.0 | 98.8 | 100.0 | 87.4 |
| ENERGY AVAILABILITY                   | X     | 19.8 | 5.3  | 100.0 | 100.0 | 96.4 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 98.9 | 100.0 | 85.5 |
| ENERGY UNAVAILABILITY                 | X     | 80.2 | 94.7 | 0.0   | 0.0   | 3.6  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1.1  | 0.0   | 14.5 |
| OF WHICH: PLANNED                     | X     | 80.2 | 94.7 | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 14.1 |
| UNPLANNED                             | X     | 0.0  | 0.0  | 0.0   | 0.0   | 3.6  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1.1  | 0.0   | 0.4  |
| LOAD FACTOR                           | X     | 10.3 | 26.2 | 92.9  | 94.3  | 87.6 | 93.8  | 93.3  | 92.3  | 92.8  | 94.6  | 92.5 | 91.9  | 80.5 |
| NET THERMAL EFFICIENCY                | X     | 24.3 | 30.9 | 30.0  | 30.3  | 29.4 | 29.8  | 29.6  | 29.4  | 29.8  | 30.1  | 30.3 | 30.5  | 29.9 |



STATION : BORSSELE

NETHERLANDS

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |         |
|----------------------------|------------|-----------------------------|---------|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 1366 MW |
| FIRST CRITICALITY          | 20.06.1973 | INSTALLED CAPACITY          | 481 MW  |
| FIRST CONNECTION TO GRID   | 04.07.1973 | MAXIMUM OUTPUT CAPACITY     | 452 MW  |
| FIRST COMMERCIAL OPERATION | 26.10.1973 |                             |         |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986  | 1987 | 1988 | 1989  | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|-------|------|------|-------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |       |      |      |       |      |                             |
| THERMAL                                   | GWH   | 100423                      | 9441 | 9993 | 10994 | 9133 | 9270 | 10465 | 8873 | 168591                      |
| ELECTRICAL GENERATED                      | GWH   | 33918                       | 3243 | 3450 | 3784  | 3121 | 3217 | 3634  | 3069 | 57436                       |
| ELECTRICAL NET                            | GWH   | 32005                       | 3062 | 3261 | 3574  | 2951 | 3033 | 3422  | 2886 | 54194                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |       |      |      |       |      |                             |
|   | HOURS | 75569                       | 6895 | 7299 | 8053  | 6756 | 6763 | 7711  | 6636 | 125682                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |       |      |      |       |      |                             |
|   | HOURS | 71569                       | 6746 | 7174 | 7866  | 6526 | 6685 | 7551  | 6001 | 120119                      |
| FACTOR OF :                               |       |                             |      |      |       |      |      |       |      |                             |
| ENERGY AVAILABILITY                       | %     | 79                          | 77   | 82   | 90    | 74   | 77   | 88    | 76   | 80                          |
| LOAD FACTOR                               | %     | 78                          | 77   | 82   | 90    | 75   | 76   | 86    | 69   | 78                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB  | MAR  | APR  | MAY  | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR |
|---------------------------------------|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 287   | 53   | 21   | 20   | 334  | 345   | 357   | 357   | 346   | 357   | 345   | 357   | 3179 |
| PRODUCTION OF ENERGY :                |       |       |      |      |      |      |       |       |       |       |       |       |       |      |
| THERMAL ENERGY                        | GWH   | 846   | 48   | 0    | 0    | 954  | 985   | 1017  | 1018  | 986   | 1016  | 984   | 1018  | 8873 |
| ELECTRICAL GENERATED                  | GWH   | 288   | 16   | 0    | 0    | 330  | 342   | 352   | 351   | 341   | 352   | 343   | 354   | 3069 |
| ELECTRICAL NET                        | GWH   | 268   | 15   | 0    | 0    | 311  | 322   | 331   | 330   | 321   | 332   | 322   | 334   | 2886 |
| MAX. ELECTRICAL POWER NET             | MW    | 393   | 322  |      |      | 449  | 448   | 448   | 446   | 446   | 447   | 450   | 477   | 477  |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |      |      |      |      |       |       |       |       |       |       |       |      |
|                                       | HOURS | 744   | 50   | 0    | 0    | 705  | 720   | 744   | 744   | 721   | 744   | 720   | 744   | 6636 |
| FACTOR OF :                           |       |       |      |      |      |      |       |       |       |       |       |       |       |      |
| TIME UTILISATION                      | %     | 100.0 | 7.4  | 0.0  | 0.0  | 94.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 75.8 |
| ENERGY AVAILABILITY                   | %     | 80.4  | 16.7 | 6.0  | 6.0  | 93.4 | 100.0 | 99.9  | 99.9  | 100.0 | 99.8  | 99.9  | 100.0 | 75.7 |
| ENERGY UNAVAILABILITY                 | %     | 19.6  | 83.3 | 94.0 | 94.0 | 6.6  | 0.0   | 0.1   | 0.1   | 0.0   | 0.2   | 0.1   | 0.0   | 24.3 |
| OF WHICH: PLANNED                     | %     | 19.6  | 83.3 | 94.0 | 94.0 | 6.6  | 0.0   | 0.1   | 0.1   | 0.0   | 0.2   | 0.1   | 0.0   | 24.3 |
| UNPLANNED                             | %     | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  |
| LOAD FACTOR                           | %     | 74.8  | 4.6  | 0.0  | 0.0  | 86.8 | 92.9  | 92.6  | 92.3  | 92.6  | 92.8  | 93.1  | 93.4  | 68.5 |
| NET THERMAL EFFICIENCY                | %     | 31.6  | 30.6 | -    | -    | 32.6 | 32.7  | 32.6  | 32.5  | 32.6  | 32.7  | 32.8  | 32.8  | 32.5 |

STATION : DOEL 1

BELGIQUE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 1192 | MW |
| DATE DE PREMIERE CRITICITE          | 00.07.1974 | PUISSANCE MAX. POSSIBLE BRUTE   | 420  | MW |
| DATE DU PREMIER COUPLAGE            | 28.08.1974 | PUISSANCE MAX. POSSIBLE NETTE   | 400  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 15.02.1975 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|------|------|------|------|------|------|------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |      |      |      |      |      |      |      |                           |
| THERMIQUE                                      |        | 78554                     | 9392 | 8601 | 7987 | 8610 | 8399 | 7630 | 8709 | 137882                    |
| ELECTRIQUE BRUTE                               | GWH    | 27053                     | 3285 | 3037 | 2821 | 3075 | 2957 | 2640 | 3003 | 47870                     |
| ELECTRIQUE NETTE                               | GWH    | 25703                     | 3129 | 2895 | 2686 | 2929 | 2810 | 2513 | 2860 | 45525                     |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS        | HEURES | 67548                     | 7988 | 7331 | 7040 | 7306 | 7686 | 6475 | 7380 | 118754                    |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 65150                     | 7958 | 7367 | 6719 | 7350 | 7027 | 6281 | 7148 | 115000                    |
| TAUX :   |        |                           |      |      |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 82                        | 89   | 83   | 79   | 85   | 81   | 72   | 84   | 82                        |
| D'UTILISATION EN ENERGIE                       | %      | 80                        | 91   | 84   | 77   | 84   | 80   | 72   | 82   | 80                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN  | FEV   | MAR  | AVR  | MAI  | JUN   | JUL   | AOU   | SEP   | OCT  | NOV  | DEC   | ANNEE |
|---|--------|------|-------|------|------|------|-------|-------|-------|-------|------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 281  | 265   | 290  | 274  | 265  | 280   | 288   | 286   | 281   | 46   | 55   | 294   | 2925  |
| PRODUCTION D'ENERGIE                    |        |      |       |      |      |      |       |       |       |       |      |      |       |       |
| THERMIQUE                               | GWH    | 645  | 801   | 875  | 833  | 869  | 859   | 887   | 886   | 860   | 140  | 170  | 883   | 8709  |
| ELECTRIQUE BRUTE                        | GWH    | 225  | 278   | 304  | 288  | 299  | 295   | 303   | 301   | 296   | 48   | 58   | 308   | 3003  |
| ELECTRIQUE NETTE                        | GWH    | 215  | 266   | 290  | 274  | 285  | 280   | 288   | 286   | 281   | 46   | 55   | 294   | 2860  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        |      |       |      |      |      |       |       |       |       |      |      |       |       |
| DUREE DE MARCHÉ<br>DES TURBOGENERATEURS | HEURES | 575  | 672   | 741  | 700  | 732  | 720   | 744   | 744   | 721   | 118  | 169  | 744   | 7380  |
| TAUX :                                  |        |      |       |      |      |      |       |       |       |       |      |      |       |       |
| D'UTILISATION EN TEMPS                  | %      | 77.3 | 100.0 | 99.7 | 97.2 | 98.4 | 100.0 | 100.0 | 100.0 | 100.0 | 15.9 | 23.5 | 100.0 | 84.2  |
| DE DISPONIBILITE EN ENERGIE             | %      | 94.5 | 98.8  | 97.7 | 95.2 | 95.7 | 97.3  | 96.8  | 96.2  | 97.6  | 15.4 | 19.1 | 98.8  | 83.5  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 5.5  | 1.2   | 2.3  | 4.8  | 4.3  | 2.7   | 3.2   | 3.8   | 2.4   | 84.6 | 80.9 | 1.2   | 16.5  |
| DONT: PROGRAMME                         |        | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 84.3 | 79.1 | 0.0   | 13.7  |
| HORS PROGRAMME                          | %      | 5.5  | 1.2   | 2.3  | 4.8  | 4.3  | 2.7   | 3.2   | 3.8   | 2.4   | 0.3  | 1.8  | 1.2   | 2.8   |
| D'UTILISATION EN ENERGIE                | %      | 72.2 | 98.9  | 97.4 | 95.2 | 95.7 | 97.2  | 96.8  | 96.1  | 97.6  | 15.4 | 19.2 | 98.8  | 81.6  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.3 | 33.2  | 33.1 | 32.9 | 32.7 | 32.6  | 32.5  | 32.3  | 32.7  | 32.9 | 32.5 | 33.3  | 32.8  |

## DONNEES GENERALES

## CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 1192 | MW |
| DATE DE PREMIERE CRITICITE          | 04.08.1975 | PUISSANCE MAX. POSSIBLE BRUTE   | 420  | MW |
| DATE DU PREMIER COUPLAGE            | 21.08.1975 | PUISSANCE MAX. POSSIBLE NETTE   | 400  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.12.1975 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                       |     | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULEE<br>AU<br>31.12.90 |
|---|-----|---------------------------|------|------|------|------|------|------|------|---------------------------|
| PRODUCTION D'ENERGIE :                                |     |                           |      |      |      |      |      |      |      |                           |
| THERMIQUE   |     | 64716                     | 8710 | 8610 | 6818 | 7774 | 8732 | 7544 | 6034 | 118937                    |
| ELECTRIQUE BRUTE                                      | GWH | 22680                     | 3068 | 3054 | 2401 | 2748 | 3056 | 2610 | 2088 | 41705                     |
| ELECTRIQUE NETTE                                      | GWH | 21491                     | 2917 | 2909 | 2283 | 2616 | 2907 | 2480 | 1983 | 39584                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS HEURES        |     |                           |      |      |      |      |      |      |      |                           |
|   |     | 55539                     | 7508 | 7342 | 5927 | 6608 | 7410 | 6436 | 5170 | 101940                    |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE HEURES |     |                           |      |      |      |      |      |      |      |                           |
|   |     | 54504                     | 7440 | 7420 | 5703 | 6561 | 7264 | 6202 | 4958 | 100052                    |
| TAUX :  |     |                           |      |      |      |      |      |      |      |                           |
| DE DISPONIBILITE EN ENERGIE                           | %   | 75                        | 82   | 84   | 70   | 77   | 83   | 71   | 57   | 75                        |
| D'UTILISATION EN ENERGIE                              | %   | 74                        | 85   | 85   | 65   | 75   | 83   | 71   | 57   | 74                        |

## EXPLOITATION MENSUELLE 1990

|  |     | JAN   | FEV  | MAR   | AVR   | MAI   | JUN   | JUL  | AOU  | SEP  | OCT   | NOV  | DEC   | ANNEE |
|--|-----|-------|------|-------|-------|-------|-------|------|------|------|-------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                       | GWH | 0     | 67   | 292   | 284   | 292   | 281   | 120  | 114  | 240  | 0     | 0    | 290   | 1980  |
| PRODUCTION D'ENERGIE                           |     |       |      |       |       |       |       |      |      |      |       |      |       |       |
| THERMIQUE                                      | GWH | 0     | 206  | 884   | 858   | 868   | 858   | 366  | 352  | 745  | 0     | 3    | 874   | 6034  |
| ELECTRIQUE BRUTE                               | GWH | 0     | 71   | 308   | 299   | 308   | 297   | 126  | 120  | 254  | 0     | 1    | 304   | 2088  |
| ELECTRIQUE NETTE                               | GWH | 0     | 67   | 293   | 284   | 292   | 282   | 120  | 114  | 241  | 0     | 1    | 290   | 1983  |
| PUISSANCE MAX. ATTEINTE NETTE MW               |     |       |      |       |       |       |       |      |      |      |       |      |       |       |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS HEURES |     |       |      |       |       |       |       |      |      |      |       |      |       |       |
|  |     | 0     | 201  | 743   | 720   | 744   | 720   | 307  | 305  | 669  | 0     | 17   | 744   | 5170  |
| TAUX :   |     |       |      |       |       |       |       |      |      |      |       |      |       |       |
| D'UTILISATION EN TEMPS                         | %   | 0.0   | 29.9 | 100.0 | 100.0 | 100.0 | 100.0 | 41.3 | 41.0 | 92.8 | 0.0   | 2.4  | 100.0 | 59.0  |
| DE DISPONIBILITE EN ENERGIE                    | %   | 0.0   | 24.9 | 98.5  | 98.6  | 98.1  | 97.8  | 40.3 | 38.2 | 83.4 | 0.0   | 0.3  | 97.4  | 56.6  |
| D'INDISPONIBILITE EN ENERGIE                   | %   | 100.0 | 75.1 | 1.5   | 1.4   | 1.9   | 2.2   | 59.7 | 61.8 | 16.6 | 100.0 | 99.7 | 2.6   | 43.4  |
| DONT: PROGRAMME                                |     |       |      |       |       |       |       |      |      |      |       |      |       |       |
|  |     | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 7.3  | 100.0 | 99.7 | 0.0   | 17.3  |
| HORS PROGRAMME                                 |     |       |      |       |       |       |       |      |      |      |       |      |       |       |
|  | %   | 100.0 | 75.1 | 1.5   | 1.4   | 1.9   | 2.2   | 59.7 | 61.8 | 9.3  | 0.0   | 0.0  | 2.6   | 26.1  |
| D'UTILISATION EN ENERGIE                       | %   | 0.0   | 25.0 | 98.5  | 98.6  | 98.1  | 97.8  | 40.3 | 38.2 | 83.4 | 0.0   | 0.3  | 97.4  | 56.6  |
| DE RENDEMENT THERMIQUE NET                     | %   | -     | 32.5 | 33.1  | 33.1  | 32.9  | 32.8  | 32.8 | 32.3 | 32.3 | -     | 26.4 | 33.2  | 32.9  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 14.06.1982  
 DATE DU PREMIER COUPLAGE 23.06.1982  
 DEBUT DE L'EXPLOITATION COMMERCIALE 11.10.1982

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2775 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 940 MW  
 PUISSANCE MAX. POSSIBLE NETTE 900 MW

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 29827                     | 22325 | 20403 | 21807 | 18497 | 21776 | 18830 | 22064 | 175527                    |
| ELECTRIQUE BRUTE                               | GWH    | 9859                      | 7470  | 6859  | 7246  | 6058  | 7163  | 6141  | 7213  | 58009                     |
| ELECTRIQUE NETTE                               | GWH    | 9337                      | 7073  | 6496  | 6860  | 5724  | 6778  | 5775  | 6812  | 54854                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 11162                     | 8084  | 7515  | 8007  | 6905  | 7875  | 7470  | 8021  | 65039                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 10371                     | 7862  | 7218  | 7621  | 6360  | 7554  | 6412  | 7569  | 60967                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 78                        | 90    | 83    | 88    | 74    | 86    | 73    | 86    | 82                        |
| D'UTILISATION EN ENERGIE                       | %      | 78                        | 90    | 82    | 87    | 73    | 86    | 73    | 86    | 82                        |

## EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR   | MAI   | JUN  | JUL  | AOU   | SEP  | OCT   | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|-------|-------|-------|------|------|-------|------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 653   | 586   | 642   | 618   | 624   | 271  | 298  | 606   | 601  | 633   | 627   | 650   | 6809  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |       |       |      |      |       |      |       |       |       |       |
| THERMIQUE                               | GWH    | 2066  | 1865  | 2060  | 1999  | 2052  | 902  | 998  | 2022  | 1975 | 2057  | 2000  | 2068  | 22064 |
| ELECTRIQUE BRUTE                        | GWH    | 689   | 619   | 679   | 654   | 662   | 291  | 317  | 644   | 637  | 670   | 663   | 687   | 7213  |
| ELECTRIQUE NETTE                        | GWH    | 653   | 586   | 642   | 618   | 624   | 271  | 298  | 607   | 601  | 633   | 627   | 650   | 6812  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |        |       |       |       |       |       |      |      |       |      |       |       |       |       |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 743   | 720   | 744   | 350  | 379  | 744   | 717  | 744   | 720   | 744   | 8021  |
| TAUX :                                  |        |       |       |       |       |       |      |      |       |      |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 48.6 | 50.9 | 100.0 | 99.4 | 100.0 | 100.0 | 100.0 | 91.6  |
| DE DISPONIBILITE EN ENERGIE             | %      | 97.6  | 96.9  | 96.0  | 95.4  | 93.3  | 41.8 | 44.5 | 90.6  | 92.6 | 94.6  | 96.9  | 97.1  | 86.3  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 2.4   | 3.1   | 4.0   | 4.6   | 6.7   | 58.2 | 55.5 | 9.4   | 7.4  | 5.4   | 3.1   | 2.9   | 13.7  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 51.4 | 52.5 | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 8.7   |
| HORS PROGRAMME                          | %      | 2.4   | 3.1   | 4.0   | 4.6   | 6.7   | 6.8  | 3.0  | 9.4   | 7.4  | 5.4   | 3.1   | 2.9   | 5.0   |
| D'UTILISATION EN ENERGIE                | %      | 97.6  | 96.9  | 96.0  | 95.4  | 93.3  | 41.9 | 44.5 | 90.6  | 92.6 | 94.6  | 96.8  | 97.1  | 86.4  |
| DE RENDEMENT THERMIQUE NET              | %      | 31.6  | 31.4  | 31.1  | 30.9  | 30.4  | 30.1 | 29.8 | 30.0  | 30.4 | 30.8  | 31.4  | 31.5  | 30.9  |

## DONNEES GENERALES

TYPE DE REACTEUR PWR  
 DATE DE PREMIERE CRITICITE 31.03.1985  
 DATE DU PREMIER COUPLAGE 08.04.1985  
 DEBUT DE L'EXPLOITATION COMMERCIALE 01.07.1985

## CARACTERISTIQUES PRINCIPALES

PUISSANCE THERMIQUE DU REACTEUR 2988 MW  
 PUISSANCE MAX. POSSIBLE BRUTE 1055 MW  
 PUISSANCE MAX. POSSIBLE NETTE 1010 MW

| DONNEES D'EXPLOITATION ANNUELLE                |  | CUMULEE<br>AU<br>31.12.83 | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--|---------------------------|------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |  |                           |      |       |       |       |       |       |       |                           |
| THERMIQUE                                      |  |                           |      | 13112 | 22934 | 20500 | 22971 | 22708 | 22832 | 125057                    |
| ELECTRIQUE BRUTE                               |  | GWH                       |      | 4577  | 8183  | 7220  | 7992  | 7884  | 7974  | 43830                     |
| ELECTRIQUE NETTE                               |  | GWH                       |      | 4282  | 7722  | 6810  | 7552  | 7446  | 7536  | 41347                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        |  | HEURES                    |      | 5262  | 7973  | 7447  | 7784  | 7737  | 7790  | 43993                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE |  | HEURES                    |      | 4371  | 7875  | 6947  | 7510  | 7376  | 7464  | 41543                     |
| TAUX :   |  |                           |      |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    |  | %                         |      | 69    | 90    | 76    | 86    | 85    | 85    | 82                        |
| D'UTILISATION EN ENERGIE                       |  | %                         |      | 68    | 90    | 79    | 86    | 84    | 85    | 83                        |

## EXPLOITATION MENSUELLE 1990

|   |  | JAN    | FEV   | MAR   | AVR   | MAI  | JUN  | JUL  | AOU  | SEP   | OCT   | NOV  | DEC  | ANNEE |       |
|---|--|--------|-------|-------|-------|------|------|------|------|-------|-------|------|------|-------|-------|
| DISPONIBILITE EN ENERGIE                |  | GWH    | 738   | 665   | 705   | 380  | 153  | 642  | 709  | 729   | 713   | 668  | 689  | 741   | 7532  |
| PRODUCTION D'ENERGIE                    |  |        |       |       |       |      |      |      |      |       |       |      |      |       |       |
| THERMIQUE                               |  | GWH    | 2225  | 2006  | 2139  | 1170 | 464  | 1948 | 2157 | 2227  | 2165  | 2038 | 2076 | 2217  | 22832 |
| ELECTRIQUE BRUTE                        |  | GWH    | 780   | 703   | 748   | 407  | 160  | 681  | 751  | 772   | 753   | 708  | 730  | 782   | 7974  |
| ELECTRIQUE NETTE                        |  | GWH    | 739   | 665   | 706   | 381  | 149  | 643  | 710  | 730   | 714   | 669  | 690  | 740   | 7536  |
| PUISSANCE MAX. ATTEINTE NETTE MW        |  |        |       |       |       |      |      |      |      |       |       |      |      |       |       |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS |  | HEURES | 744   | 672   | 743   | 470  | 188  | 656  | 723  | 744   | 721   | 690  | 695  | 744   | 7790  |
| TAUX :                                  |  |        |       |       |       |      |      |      |      |       |       |      |      |       |       |
| D'UTILISATION EN TEMPS                  |  | %      | 100.0 | 100.0 | 100.0 | 65.3 | 25.3 | 91.1 | 97.2 | 100.0 | 100.0 | 92.7 | 96.5 | 100.0 | 88.9  |
| DE DISPONIBILITE EN ENERGIE             |  | %      | 98.4  | 98.0  | 94.0  | 52.3 | 20.5 | 88.5 | 94.4 | 97.2  | 98.1  | 89.0 | 94.9 | 98.8  | 85.2  |
| D'INDISPONIBILITE EN ENERGIE            |  | %      | 1.6   | 2.0   | 6.0   | 47.7 | 79.5 | 11.5 | 5.6  | 2.8   | 1.9   | 11.0 | 5.1  | 1.2   | 14.8  |
| OONT: PROGRAMME                         |  |        | 0.0   | 0.0   | 0.0   | 34.7 | 78.1 | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 9.5   |
| HORS PROGRAMME                          |  | %      | 1.6   | 2.0   | 6.0   | 13.0 | 1.4  | 11.5 | 5.6  | 2.8   | 1.9   | 11.0 | 5.1  | 1.2   | 5.3   |
| D'UTILISATION EN ENERGIE                |  | %      | 98.4  | 98.0  | 94.0  | 52.4 | 19.8 | 88.4 | 94.4 | 97.2  | 98.1  | 89.0 | 94.9 | 98.5  | 85.2  |
| DE RENDEMENT THERMIQUE NET              |  | %      | 33.2  | 33.2  | 33.0  | 32.5 | 32.1 | 33.0 | 32.9 | 32.8  | 33.0  | 32.8 | 33.2 | 33.4  | 33.0  |

STATION : TIHANGE 1

BELGIQUE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2660 | MW |
| DATE DE PREMIERE CRITICITE          | 21.02.1975 | PUISSANCE MAX. POSSIBLE BRUTE   | 920  | MW |
| DATE DU PREMIER COUPLAGE            | 07.03.1975 | PUISSANCE MAX. POSSIBLE NETTE   | 870  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.10.1975 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 153201                    | 19672 | 18928 | 12544 | 22898 | 19689 | 20419 | 20604 | 287955                    |
| ELECTRIQUE BRUTE                               | GWH    | 52218                     | 6734  | 6368  | 4249  | 7736  | 6672  | 6871  | 7051  | 97879                     |
| ELECTRIQUE NETTE                               | GWH    | 49446                     | 6373  | 5979  | 4002  | 7337  | 6313  | 6508  | 6683  | 92641                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 61933                     | 7774  | 8077  | 5428  | 8733  | 7520  | 7854  | 8082  | 115401                    |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 56828                     | 7326  | 6877  | 4599  | 8436  | 7256  | 7481  | 7683  | 106485                    |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 74                        | 83    | 80    | 52    | 98    | 84    | 88    | 88    | 77                        |
| D'UTILISATION EN ENERGIE                       | %      | 74                        | 83    | 79    | 53    | 96    | 83    | 85    | 88    | 77                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR   | MAI  | JUN  | JUL   | AOU   | SEP   | DCT   | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 647   | 585   | 604   | 468   | 53   | 557  | 644   | 629   | 627   | 647   | 626   | 647   | 6734  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |       |      |      |       |       |       |       |       |       |       |
| THERMIQUE                               | GWH    | 1960  | 1783  | 1863  | 1477  | 171  | 1696 | 1962  | 1924  | 1911  | 1975  | 1910  | 1974  | 20604 |
| ELECTRIQUE BRUTE                        | GWH    | 680   | 623   | 637   | 499   | 57   | 579  | 663   | 643   | 650   | 671   | 662   | 687   | 7051  |
| ELECTRIQUE NETTE                        | GWH    | 645   | 595   | 607   | 467   | 53   | 548  | 628   | 607   | 616   | 636   | 629   | 652   | 6683  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 870   | 870   | 870   | 710   | 559  | 870  | 870   | 870   | 870   | 870   | 870   | 870   | 870   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 672   | 743   | 720   | 112  | 684  | 744   | 744   | 721   | 744   | 720   | 744   | 8082  |
| TAUX :                                  |        |       |       |       |       |      |      |       |       |       |       |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 100.0 | 100.0 | 100.0 | 13.7 | 95.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 92.3  |
| DE DISPONIBILITE EN ENERGIE             | %      | 100.0 | 100.0 | 93.5  | 74.7  | 8.2  | 89.0 | 99.5  | 97.2  | 100.0 | 100.0 | 100.0 | 100.0 | 88.4  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.0   | 0.0   | 6.5   | 25.3  | 91.8 | 11.0 | 0.5   | 2.8   | 0.0   | 0.0   | 0.0   | 0.0   | 11.6  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0   | 4.8   | 0.0   | 86.4 | 4.9  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 8.1   |
| HORS PROGRAMME                          | %      | 0.0   | 0.0   | 1.7   | 25.3  | 5.4  | 6.1  | 0.5   | 2.8   | 0.0   | 0.0   | 0.0   | 0.0   | 3.5   |
| D'UTILISATION EN ENERGIE                | %      | 99.6  | 101.8 | 93.9  | 74.6  | 8.2  | 87.5 | 97.0  | 93.8  | 98.2  | 98.3  | 100.4 | 100.7 | 87.7  |
| DE RENDEMENT THERMIQUE NET              | %      | 32.9  | 33.4  | 32.6  | 31.6  | 31.1 | 32.3 | 32.0  | 31.5  | 32.2  | 32.2  | 32.9  | 33.0  | 32.4  |

STATION : TIHANGE 2

BELGIQUE

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2775 | MW |
| DATE DE PREMIERE CRITICITE          | 05.10.1982 | PUISSANCE MAX. POSSIBLE BRUTE   | 941  | MW |
| DATE DU PREMIER COUPLAGE            | 13.10.1982 | PUISSANCE MAX. POSSIBLE NETTE   | 901  | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 00.03.1983 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                |        | CUMULEE<br>AU<br>31.12.83 |       |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |        |                           | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                           |
| PRODUCTION D'ENERGIE :                         |        |                           |       |       |       |       |       |       |       |                           |
| THERMIQUE                                      |        | 17909                     | 21186 | 20768 | 19483 | 20353 | 21540 | 20633 | 21394 | 163266                    |
| ELECTRIQUE BRUTE                               | GWH    | 6000                      | 7151  | 6936  | 6469  | 6858  | 7257  | 6937  | 7208  | 54816                     |
| ELECTRIQUE NETTE                               | GWH    | 5725                      | 6855  | 6636  | 6190  | 6584  | 6965  | 6663  | 6919  | 52537                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES | 6950                      | 7693  | 7889  | 7508  | 7477  | 7992  | 7728  | 7827  | 61064                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES | 6357                      | 7607  | 7376  | 6868  | 7306  | 7730  | 7393  | 7683  | 58319                     |
| TAUX :   |        |                           |       |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %      | 59                        | 86    | 84    | 80    | 84    | 88    | 85    | 88    | 81                        |
| D'UTILISATION EN ENERGIE                       | %      | 59                        | 87    | 84    | 78    | 83    | 88    | 84    | 88    | 81                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV  | MAR   | AVR  | MAI  | JUN  | JUL  | AOU   | SEP   | OCT  | NOV   | DEC   | ANNEE |
|---|--------|-------|------|-------|------|------|------|------|-------|-------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 659   | 450  | 668   | 630  | 642  | 41   | 568  | 670   | 650   | 649  | 649   | 670   | 6946  |
| PRODUCTION D'ENERGIE                    |        |       |      |       |      |      |      |      |       |       |      |       |       |       |
| THERMIQUE                               | GWH    | 2033  | 1387 | 2054  | 1935 | 1990 | 144  | 1729 | 2047  | 1995  | 2019 | 2000  | 2067  | 21394 |
| ELECTRIQUE BRUTE                        | GWH    | 696   | 476  | 707   | 662  | 667  | 43   | 576  | 665   | 665   | 666  | 680   | 706   | 7208  |
| ELECTRIQUE NETTE                        | GWH    | 670   | 459  | 682   | 638  | 642  | 40   | 552  | 638   | 637   | 637  | 651   | 675   | 6919  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 900   | 900  | 900   | 900  | 900  | 900  | 900  | 900   | 900   | 900  | 900   | 900   | 900   |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 744   | 508  | 742   | 705  | 741  | 60   | 665  | 744   | 721   | 733  | 720   | 744   | 7827  |
| TAUX :                                  |        |       |      |       |      |      |      |      |       |       |      |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 100.0 | 75.6 | 99.9  | 97.9 | 99.6 | 8.3  | 89.4 | 100.0 | 100.0 | 98.5 | 100.0 | 100.0 | 89.3  |
| DE DISPONIBILITE EN ENERGIE             | %      | 98.4  | 74.4 | 99.9  | 97.0 | 95.9 | 6.2  | 84.9 | 100.0 | 100.0 | 96.9 | 100.0 | 100.0 | 88.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 1.6   | 25.6 | 0.1   | 3.0  | 4.1  | 93.8 | 15.1 | 0.0   | 0.0   | 3.1  | 0.0   | 0.0   | 11.9  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 92.5 | 13.8 | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 8.8   |
| HORS PROGRAMME                          | %      | 1.6   | 25.6 | 0.1   | 3.0  | 4.1  | 1.3  | 1.3  | 0.0   | 0.0   | 3.1  | 0.0   | 0.0   | 3.1   |
| D'UTILISATION EN ENERGIE                | %      | 99.9  | 75.7 | 101.9 | 98.3 | 95.7 | 6.2  | 82.3 | 95.2  | 98.1  | 95.0 | 100.4 | 100.7 | 87.7  |
| DE RENDEMENT THERMIQUE NET              | %      | 33.0  | 33.1 | 33.2  | 33.0 | 32.2 | 27.9 | 31.9 | 31.2  | 31.9  | 31.6 | 32.6  | 32.7  | 32.3  |

DONNEES GENERALES

CARACTERISTIQUES PRINCIPALES

|                                     |            |                                 |      |    |
|-------------------------------------|------------|---------------------------------|------|----|
| TYPE DE REACTEUR                    | PWR        | PUISSANCE THERMIQUE DU REACTEUR | 2988 | MW |
| DATE DE PREMIERE CRITICITE          | 05.06.1985 | PUISSANCE MAX. POSSIBLE BRUTE   | 1070 | MW |
| DATE DU PREMIER COUPLAGE            | 14.06.1985 | PUISSANCE MAX. POSSIBLE NETTE   | 1020 | MW |
| DEBUT DE L'EXPLOITATION COMMERCIALE | 01.09.1985 |                                 |      |    |

| DONNEES D'EXPLOITATION ANNUELLE                | CUMULEE<br>AU<br>31.12.83 | 1984 1985 1986 1987 1988 1989 1990 |       |       |       |       |       |       | CUMULEE<br>AU<br>31.12.90 |
|--|---------------------------|------------------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
|  |                           | PRODUCTION D'ENERGIE :             |       |       |       |       |       |       |                           |
| THERMIQUE                                      |                           |                                    | 10604 | 22487 | 22974 | 22467 | 22774 | 22885 | 124191                    |
| ELECTRIQUE BRUTE                               | GWH                       |                                    | 3737  | 8002  | 8224  | 8005  | 8133  | 8184  | 44285                     |
| ELECTRIQUE NETTE                               | GWH                       |                                    | 3531  | 7608  | 7829  | 7621  | 7749  | 7794  | 42132                     |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS        | HEURES                    |                                    | 2182  | 7732  | 7872  | 7773  | 7790  | 7924  | 41273                     |
| DUREE D'UTILISATION<br>PUISSANCE MAX. POSSIBLE | HEURES                    |                                    | 3462  | 7455  | 7674  | 7475  | 7595  | 7639  | 41299                     |
| TAUX :   |                           |                                    |       |       |       |       |       |       |                           |
| DE DISPONIBILITE EN ENERGIE                    | %                         |                                    | 98    | 85    | 87    | 85    | 87    | 87    | 87                        |
| D'UTILISATION EN ENERGIE                       | %                         |                                    | 72    | 85    | 88    | 85    | 87    | 87    | 85                        |

EXPLOITATION MENSUELLE 1990

|   |        | JAN   | FEV   | MAR   | AVR   | M AI  | JUN   | JUL   | AOU   | SEP  | OCT  | NOV   | DEC   | ANNEE |
|---|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|
| DISPONIBILITE EN ENERGIE                | GWH    | 752   | 685   | 758   | 732   | 759   | 734   | 713   | 551   | 2    | 606  | 732   | 758   | 7782  |
| PRODUCTION D'ENERGIE                    |        |       |       |       |       |       |       |       |       |      |      |       |       |       |
| THERMIQUE                               | GWH    | 2193  | 2001  | 2211  | 2134  | 2213  | 2139  | 2152  | 1716  | 11   | 1773 | 2135  | 2209  | 22885 |
| ELECTRIQUE BRUTE                        | GWH    | 795   | 724   | 801   | 768   | 788   | 757   | 750   | 587   | 4    | 632  | 774   | 804   | 8184  |
| ELECTRIQUE NETTE                        | GWH    | 760   | 691   | 764   | 733   | 753   | 722   | 712   | 551   | 2    | 600  | 739   | 768   | 7794  |
| PUISSANCE MAX. ATTEINTE NETTE           | MW     | 1020  | 1020  | 1020  | 1020  | 1020  | 1020  | 1020  | 850   | 500  | 1020 | 1020  | 1020  | 1020  |
| DUREE DE MARCHE<br>DES TURBOGENERATEURS | HEURES | 742   | 672   | 743   | 720   | 744   | 720   | 744   | 744   | 9    | 622  | 720   | 744   | 7924  |
| TAUX :                                  |        |       |       |       |       |       |       |       |       |      |      |       |       |       |
| D'UTILISATION EN TEMPS                  | %      | 99.7  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 1.2  | 83.6 | 100.0 | 100.0 | 90.5  |
| DE DISPONIBILITE EN ENERGIE             | %      | 99.1  | 100.0 | 100.0 | 99.7  | 100.0 | 100.0 | 93.9  | 72.6  | 0.3  | 79.9 | 99.7  | 99.9  | 87.1  |
| D'INDISPONIBILITE EN ENERGIE            | %      | 0.9   | 0.0   | 0.0   | 0.3   | 0.0   | 0.0   | 6.1   | 27.4  | 99.7 | 20.1 | 0.3   | 0.1   | 12.9  |
| DONT: PROGRAMME                         |        | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.4   | 98.7 | 18.4 | 0.0   | 0.0   | 9.7   |
| HORS PROGRAMME                          | %      | 0.9   | 0.0   | 0.0   | 0.3   | 0.0   | 0.0   | 6.1   | 27.0  | 1.0  | 1.7  | 0.3   | 0.1   | 3.2   |
| D'UTILISATION EN ENERGIE                | %      | 100.1 | 100.7 | 100.8 | 99.8  | 99.2  | 98.3  | 93.8  | 72.6  | 0.3  | 79.1 | 100.6 | 101.2 | 87.2  |
| DE RENDEMENT THERMIQUE NET              | %      | 34.6  | 34.5  | 34.6  | 34.3  | 34.0  | 33.8  | 33.1  | 32.1  | 19.0 | 33.9 | 34.6  | 34.8  | 34.1  |



STATION : WINFRITH

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |        |
|----------------------------|------------|-----------------------------|--------|
| TYPE OF REACTOR            | SGHWR      | THERMAL CAPACITY OF REACTOR | 318 MW |
| FIRST CRITICALITY          | 00.09.1967 | INSTALLED CAPACITY          | 100 MW |
| FIRST CONNECTION TO GRID   | 00.12.1967 | MAXIMUM OUTPUT CAPACITY     | 92 MW  |
| FIRST COMMERCIAL OPERATION | 00.01.1968 |                             |        |

| ANNUAL OPERATING DATA                     |       | CUMULATED AT 31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED AT 31.12.90 |
|---|-------|-----------------------|------|------|------|------|------|------|------|-----------------------|
| PRODUCTION OF ENERGY :                    |       |                       |      |      |      |      |      |      |      |                       |
| THERMAL                                   | GWH   | 22140                 | 1638 | 1323 | 1638 | 1554 | 1509 | 1322 | 1149 | 32273                 |
| ELECTRICAL GENERATED                      | GWH   | 7993                  | 590  | 476  | 583  | 562  | 532  | 459  | 399  | 11594                 |
| ELECTRICAL NET                            | GWH   | 7398                  | 546  | 441  | 538  | 518  | 492  | 423  | 368  | 10724                 |
| UTILISATION PERIOD OF TURBOGENERATORS     | HOURS | 84482                 | 5828 | 4157 | 5512 | 5619 | 5331 | 4594 | 4064 | 117587                |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY | HOURS | 80320                 | 5938 | 4792 | 5852 | 5633 | 5349 | 4581 | 4003 | 116469                |
| FACTOR OF :                               |       |                       |      |      |      |      |      |      |      |                       |
| ENERGY AVAILABILITY                       | %     | 61                    | 72   | 58   | 66   | 64   | 59   | 51   | 100  | 63                    |
| LOAD FACTOR                               | %     | 57                    | 68   | 55   | 67   | 64   | 61   | 52   | 46   | 58                    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 68    | 62    | 68    | 66    | 68    | 66    | 68    | 68    | 66    | 69    | 66    | 68    | 803   |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 209   | 190   | 184   | 0     | 0     | 103   | 175   | 213   | 75    | 0     | 0     | 0     | 1149  |
| ELECTRICAL GENERATED                  | GWH   | 72    | 66    | 64    | 0     | 0     | 36    | 61    | 74    | 26    | 0     | 0     | 0     | 399   |
| ELECTRICAL NET                        | GWH   | 67    | 61    | 59    | 0     | 0     | 33    | 56    | 68    | 24    | 0     | 0     | 0     | 368   |
| MAX. ELECTRICAL POWER NET             | MW    | 93    | 93    | 93    | 93    | 93    | 93    | 93    | 93    | 93    |       |       |       | 93    |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 709   | 661   | 697   | 0     | 0     | 373   | 618   | 744   | 262   | 0     | 0     | 0     | 4064  |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | %     | 95.3  | 98.4  | 93.8  | 0.0   | 0.0   | 51.8  | 83.1  | 100.0 | 36.4  | 0.0   | 0.0   | 0.0   | 46.4  |
| ENERGY AVAILABILITY                   | %     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ENERGY UNAVAILABILITY                 | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| UNPLANNED                             | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| LOAD FACTOR                           | %     | 97.9  | 98.7  | 86.3  | 0.0   | 0.0   | 49.8  | 81.8  | 99.3  | 36.2  | 0.0   | 0.0   | 0.0   | 45.7  |
| NET THERMAL EFFICIENCY                | %     | 32.1  | 32.1  | 32.1  | -     | -     | 32.0  | 32.0  | 31.9  | 32.0  | -     | -     | -     | 32.0  |

## GENERAL DATA

TYPE OF REACTOR FBR  
 FIRST CRITICALITY 00.03.1974  
 FIRST CONNECTION TO GRID 10.01.1975  
 FIRST COMMERCIAL OPERATION 00.07.1976

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 600 MW  
 INSTALLED CAPACITY 250 MW  
 MAXIMUM OUTPUT CAPACITY 234 MW

## ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 |      |      |      |      |      |      |      | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
|   |       |                             | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |                             |
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                   | GWH   | 6138                        | 1305 | 2432 | 2602 | 2507 | 1778 | 3160 | 1575 | 21497                       |
| ELECTRICAL GENERATED                      | GWH   | 1421                        | 446  | 893  | 961  | 916  | 658  | 1134 | 575  | 7004                        |
| ELECTRICAL NET                            | GWH   | 1099                        | 408  | 826  | 889  | 842  | 611  | 1043 | 534  | 6251                        |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 22223                       | 3097 | 4466 | 4669 | 4804 | 2906 | 5526 | 2600 | 50291                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 4691                        | 1783 | 3574 | 3846 | 3662 | 2635 | 4538 | 2295 | 27024                       |
| FACTOR OF :                               |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                       | %     | 93                          | 79   | 80   | 44   | 42   | 30   | 52   | 26   | 74                          |
| LOAD FACTOR                               | %     | 6                           | 20   | 41   | 44   | 42   | 30   | 52   | 26   | 19                          |

## MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB  | MAR  | APR  | MAY   | JUN   | JUL   | AUG   | SEP   | OCT  | NOV   | DEC  | YEAR |
|---------------------------------------|-------|------|------|------|------|-------|-------|-------|-------|-------|------|-------|------|------|
| AVAILABLE ENERGY                      | GWH   | 158  | 60   | 110  | 126  | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 118  | 572  |
| PRDUCTION OF ENERGY :                 |       |      |      |      |      |       |       |       |       |       |      |       |      |      |
| THERMAL ENERGY                        | GWH   | 432  | 165  | 307  | 344  | 0     | 0     | 0     | 0     | 0     | 0    | 1     | 327  | 1575 |
| ELECTRICAL GENERATED                  | GWH   | 158  | 61   | 110  | 126  | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 119  | 575  |
| ELECTRICAL NET                        | GWH   | 147  | 57   | 102  | 118  | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 111  | 534  |
| MAX. ELECTRICAL POWER NET             | MW    | 224  | 221  | 221  | 223  |       |       |       |       |       |      |       | 226  | 226  |
| UTILISATION PERIOD OF TURBOGENERATORS |       |      |      |      |      |       |       |       |       |       |      |       |      |      |
|                                       | HOURS | 703  | 262  | 540  | 562  | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 533  | 2600 |
| FACTOR OF :                           |       |      |      |      |      |       |       |       |       |       |      |       |      |      |
| TIME UTILISATION                      | %     | 94.5 | 39.0 | 72.7 | 78.1 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 71.6 | 29.7 |
| ENERGY AVAILABILITY                   | %     | 85.0 | 36.2 | 59.3 | 70.2 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1  | 0.0   | 63.9 | 26.3 |
| ENERGY UNAVAILABILITY                 | %     | 15.0 | 63.8 | 40.7 | 29.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.9 | 100.0 | 36.1 | 73.7 |
| OF WHICH: PLANNED                     | %     | 0.0  | 61.0 | 3.5  | 0.0  | 0.0   | 50.0  | 100.0 | 100.0 | 100.0 | 99.9 | 100.0 | 25.1 | 53.1 |
| UNPLANNED                             | %     | 15.0 | 2.8  | 37.2 | 29.8 | 100.0 | 50.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 11.0 | 20.6 |
| LOAD FACTOR                           | %     | 85.0 | 36.2 | 59.4 | 70.2 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 63.9 | 26.2 |
| NET THERMAL EFFICIENCY                | %     | 34.1 | 34.3 | 33.3 | 34.2 | -     | -     | -     | -     | -     | -    | -     | 33.8 | 33.9 |

STATION : CALDERHALL

UNITED KINGDOM

## GENERAL DATA

TYPE OF REACTOR GCR  
 FIRST CRITICALITY 00.05.1956  
 FIRST CONNECTION TO GRID 27.08.1956  
 FIRST COMMERCIAL OPERATION 00.10.1956

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 1072 MW  
 INSTALLED CAPACITY 240 MW  
 MAXIMUM OUTPUT CAPACITY 198 MW

## ANNUAL OPERATING DATA

|  |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED<br>AT<br>31.12.90 |
|--|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
|  |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                      | GWH   | 173203                      | 8107 | 8184 | 8172 | 7719 | 7623 | 7991 | 7900 | 227899                      |
| ELECTRICAL GENERATED                         | GWH   | 41143                       | 1775 | 1776 | 1753 | 1660 | 1618 | 1718 | 1702 | 53146                       |
| ELECTRICAL NET                               | GWH   | 33320                       | 1440 | 1440 | 1413 | 1337 | 1302 | 1396 | 1371 | 43020                       |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS | 228304                      | 6260 | 7659 | 7646 | 7265 | 7129 | 7447 | 7453 | 272163                      |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS | 174836                      | 7273 | 7271 | 7137 | 6754 | 6579 | 7052 | 6920 | 223822                      |
| FACTOR OF :                                  |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                          | %     | 74                          | 97   | 87   | 87   | 83   | 86   | 86   | 86   | 76                          |
| LOAD FACTOR                                  | %     | 73                          | 83   | 83   | 82   | 77   | 75   | 81   | 79   | 74                          |

## MONTHLY OPERATING DATA DURING 1990

|  |       | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV   | DEC   | YEAR |
|--|-------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|
| AVAILABLE ENERGY                         | GWH   | 145  | 127  | 106  | 108  | 109  | 137  | 127  | 112  | 112  | 112  | 140   | 145   | 1480 |
| PRODUCTION OF ENERGY :                   |       |      |      |      |      |      |      |      |      |      |      |       |       |      |
| THERMAL ENERGY                           | GWH   | 792  | 703  | 584  | 570  | 576  | 717  | 669  | 574  | 589  | 589  | 752   | 785   | 7900 |
| ELECTRICAL GENERATED                     | GWH   | 170  | 150  | 123  | 124  | 126  | 158  | 145  | 123  | 126  | 126  | 162   | 169   | 1702 |
| ELECTRICAL NET                           | GWH   | 139  | 122  | 98   | 99   | 101  | 128  | 117  | 98   | 101  | 101  | 131   | 137   | 1371 |
| MAX. ELECTRICAL POWER NET                | MW    |      |      |      |      |      |      |      |      |      |      |       |       |      |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 738  | 654  | 548  | 545  | 543  | 678  | 632  | 542  | 554  | 555  | 720   | 744   | 7453 |
| FACTOR OF :                              |       |      |      |      |      |      |      |      |      |      |      |       |       |      |
| TIME UTILISATION                         | %     | 99.2 | 97.3 | 73.8 | 75.7 | 73.0 | 94.2 | 84.9 | 72.8 | 76.9 | 74.5 | 100.0 | 100.0 | 85.1 |
| ENERGY AVAILABILITY                      | %     | 98.9 | 96.0 | 72.8 | 75.7 | 74.3 | 96.0 | 86.8 | 76.3 | 78.5 | 75.9 | 98.2  | 99.3  | 85.6 |
| ENERGY UNAVAILABILITY                    | %     | 1.1  | 4.0  | 27.2 | 24.3 | 25.7 | 4.0  | 13.2 | 23.7 | 21.5 | 24.1 | 1.8   | 0.7   | 14.4 |
| OF WHICH: PLANNED                        | %     | 0.0  | 0.0  | 25.4 | 23.6 | 24.8 | 3.0  | 13.1 | 23.4 | 21.1 | 23.5 | 0.2   | 0.0   | 13.3 |
| UNPLANNED                                | %     | 1.1  | 4.0  | 1.8  | 0.7  | 0.9  | 1.0  | 0.1  | 0.3  | 0.4  | 0.6  | 1.6   | 0.7   | 1.1  |
| LOAD FACTOR                              | %     | 94.3 | 91.5 | 66.4 | 69.6 | 68.6 | 89.7 | 79.2 | 66.8 | 70.9 | 68.2 | 91.8  | 93.0  | 79.0 |
| NET THERMAL EFFICIENCY                   | %     | 17.5 | 17.3 | 16.7 | 17.4 | 17.5 | 17.8 | 17.4 | 17.1 | 17.2 | 17.1 | 17.4  | 17.4  | 17.4 |

STATION : CHAPELCROSS

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |         |
|----------------------------|------------|-----------------------------|---------|
| TYPE OF REACTOR            | GCR        | THERMAL CAPACITY OF REACTOR | 1040 MW |
| FIRST CRITICALITY          | 00.11.1958 | INSTALLED CAPACITY          | 240 MW  |
| FIRST CONNECTION TO GRID   | 00.02.1959 | MAXIMUM OUTPUT CAPACITY     | 192 MW  |
| FIRST COMMERCIAL OPERATION | 00.03.1959 |                             |         |

| ANNUAL OPERATING DATA                     |       | CUMULATED AT 31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED AT 31.12.90 |
|---|-------|-----------------------|------|------|------|------|------|------|------|-----------------------|
| PRODUCTION OF ENERGY :                    |       |                       |      |      |      |      |      |      |      |                       |
| THERMAL                                   | GWH   | 182238                | 7948 | 7827 | 7867 | 7981 | 7831 | 7496 | 7827 | 237015                |
| ELECTRICAL GENERATED                      | GWH   | 41528                 | 1801 | 1764 | 1790 | 1817 | 1777 | 1698 | 1765 | 53939                 |
| ELECTRICAL NET                            | GWH   | 33665                 | 1458 | 1427 | 1454 | 1471 | 1437 | 1368 | 1428 | 43708                 |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                       |      |      |      |      |      |      |      |                       |
|   | HOURS | 179191                | 7716 | 7833 | 8760 | 8760 | 8784 | 8760 | 8760 | 237564                |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                       |      |      |      |      |      |      |      |                       |
|   | HOURS | 174765                | 7598 | 7428 | 7574 | 7664 | 7484 | 7122 | 7437 | 227073                |
| FACTOR OF :                               |       |                       |      |      |      |      |      |      |      |                       |
| ENERGY AVAILABILITY                       | %     | 80                    | 88   | 88   | 88   | 90   | 88   | 86   | 89   | 82                    |
| LOAD FACTOR                               | %     | 80                    | 87   | 85   | 87   | 88   | 85   | 81   | 85   | 81                    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT  | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 141   | 128   | 137   | 129   | 107   | 125   | 114   | 121   | 117   | 113  | 123   | 141   | 1496  |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |       |      |       |       |       |
| THERMAL ENERGY                        | GWH   | 752   | 684   | 731   | 677   | 554   | 637   | 591   | 631   | 621   | 551  | 652   | 748   | 7827  |
| ELECTRICAL GENERATED                  | GWH   | 170   | 155   | 165   | 154   | 126   | 143   | 132   | 142   | 137   | 126  | 147   | 169   | 1765  |
| ELECTRICAL NET                        | GWH   | 138   | 126   | 133   | 125   | 102   | 115   | 106   | 114   | 110   | 101  | 119   | 137   | 1428  |
| MAX. ELECTRICAL POWER NET             | MW    | 191   | 191   | 191   | 191   | 141   | 187   | 185   | 138   | 188   | 141  | 189   | 190   | 191   |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |       |       |       |       |       |       |      |       |       |       |
|                                       | HOURS | 744   | 672   | 744   | 720   | 744   | 720   | 744   | 744   | 720   | 744  | 720   | 744   | 8760  |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |       |      |       |       |       |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.9 | 100.0 | 100.0 | 100.0 |
| ENERGY AVAILABILITY                   | %     | 98.7  | 99.5  | 96.0  | 93.7  | 75.4  | 90.8  | 79.7  | 85.1  | 85.0  | 79.0 | 89.7  | 93.7  | 89.1  |
| ENERGY UNAVAILABILITY                 | %     | 1.3   | 0.5   | 4.0   | 6.3   | 24.6  | 9.2   | 20.3  | 14.9  | 15.0  | 21.0 | 10.3  | 1.3   | 10.9  |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 5.9   | 23.9  | 8.5   | 18.0  | 13.9  | 14.8  | 20.3 | 9.6   | 9.0   | 9.7   |
| UNPLANNED                             | %     | 1.3   | 0.5   | 4.0   | 0.4   | 0.7   | 0.7   | 2.3   | 1.0   | 0.2   | 0.7  | 0.7   | 1.3   | 1.2   |
| LOAD FACTOR                           | %     | 96.9  | 97.3  | 93.5  | 90.1  | 71.3  | 83.5  | 74.5  | 79.9  | 79.7  | 70.8 | 86.0  | 95.2  | 84.9  |
| NET THERMAL EFFICIENCY                | %     | 18.4  | 18.4  | 18.3  | 18.4  | 18.4  | 18.1  | 18.0  | 18.1  | 17.8  | 18.4 | 18.2  | 18.4  | 18.2  |

STATION : BRADWELL

UNITED KINGDOM

## GENERAL DATA

TYPE OF REACTOR GCR  
 FIRST CRITICALITY 00.08.1961  
 FIRST CONNECTION TO GRID 01.07.1962  
 FIRST COMMERCIAL OPERATION 01.07.1962

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 962 MW  
 INSTALLED CAPACITY 258 MW  
 MAXIMUM OUTPUT CAPACITY 245 MW

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                   | GWH   | 137700                      | 7117 | 7771 | 6657 | 7785 | 7065 | 3344 | 6239 | 183678                      |
| ELECTRICAL GENERATED                      | GWH   | 39543                       | 2007 | 2194 | 1872 | 2198 | 2004 | 952  | 1759 | 52528                       |
| ELECTRICAL NET                            | GWH   | 34049                       | 1698 | 1870 | 1583 | 1863 | 1699 | 799  | 1483 | 45044                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 167570                      | 8736 | 8736 | 8736 | 8904 | 8568 | 5132 | 8705 | 225087                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 125486                      | 6928 | 7635 | 6465 | 7604 | 6936 | 3259 | 6054 | 170367                      |
| FACTOR OF :                               |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                       | %     | 67                          | 79   | 88   | 72   | 85   | 79   | 39   | 70   | 68                          |
| LOAD FACTOR                               | %     | 66                          | 79   | 87   | 74   | 85   | 79   | 37   | 69   | 68                          |

## MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV  | DEC   | YEAR |
|---------------------------------------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 82    | 82    | 102  | 149   | 153   | 192   | 110   | 75    | 94    | 104   | 156  | 190   | 1489 |
| PRODUCTION OF ENERGY :                |       |       |       |      |       |       |       |       |       |       |       |      |       |      |
| THERMAL ENERGY                        | GWH   | 329   | 329   | 409  | 649   | 646   | 807   | 446   | 331   | 418   | 442   | 647  | 787   | 6239 |
| ELECTRICAL GENERATED                  | GWH   | 94    | 94    | 126  | 183   | 181   | 226   | 123   | 90    | 114   | 124   | 182  | 223   | 1759 |
| ELECTRICAL NET                        | GWH   | 79    | 79    | 97   | 155   | 154   | 193   | 104   | 75    | 95    | 104   | 156  | 191   | 1483 |
| MAX. ELECTRICAL POWER NET MW          |       |       |       |      |       |       |       |       |       |       |       |      |       |      |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 672   | 672   | 815  | 696   | 672   | 840   | 672   | 672   | 840   | 673   | 641  | 840   | 8705 |
| FACTOR OF :                           |       |       |       |      |       |       |       |       |       |       |       |      |       |      |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 95.4 | 100.0 | 99.6 |
| ENERGY AVAILABILITY                   | %     | 49.8  | 49.8  | 49.7 | 90.3  | 93.3  | 93.5  | 67.0  | 45.3  | 46.0  | 63.3  | 94.7 | 92.6  | 69.7 |
| ENERGY UNAVAILABILITY                 | %     | 50.2  | 50.2  | 50.3 | 9.7   | 6.7   | 6.5   | 33.0  | 54.7  | 54.0  | 36.7  | 5.3  | 7.4   | 30.3 |
| OF WHICH: PLANNED                     | %     | 50.2  | 50.2  | 50.3 | 9.7   | 6.7   | 6.5   | 33.0  | 54.7  | 54.0  | 35.8  | 0.0  | 0.0   | 29.1 |
| UNPLANNED                             | %     | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.9   | 5.3  | 7.4   | 1.2  |
| LOAD FACTOR                           | %     | 48.2  | 47.9  | 47.2 | 94.3  | 93.7  | 93.6  | 63.3  | 45.8  | 46.4  | 63.3  | 91.7 | 92.6  | 69.3 |
| NET THERMAL EFFICIENCY                | %     | 24.1  | 24.0  | 23.7 | 23.9  | 23.9  | 23.9  | 23.4  | 22.8  | 22.8  | 23.6  | 24.1 | 24.2  | 23.8 |

STATION :            TRAFSFYNYDD

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | OCR        | THERMAL CAPACITY OF REACTOR | 1700 | MW |
| FIRST CRITICALITY          | 00.09.1964 | INSTALLED CAPACITY          | 470  | MW |
| FIRST CONNECTION TO GRID   | 14.01.1965 | MAXIMUM OUTPUT CAPACITY     | 390  | MW |
| FIRST COMMERCIAL OPERATION | 24.03.1965 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988 | 1989 | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|-------|-------|-------|-------|------|------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |       |       |       |       |      |      |       |                             |
| THERMAL                                   | GWH   | 201255                      | 11734 | 13144 | 11978 | 12851 | 8076 | 9966 | 10082 | 279086                      |
| ELECTRICAL GENERATED                      | GWH   | 57898                       | 3389  | 3786  | 3458  | 3654  | 2387 | 3068 | 3102  | 80741                       |
| ELECTRICAL NET                            | GWH   | 49016                       | 2864  | 3221  | 2927  | 3096  | 2018 | 2598 | 2641  | 60380                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |       |       |       |       |      |      |       |                             |
|   | HOURS | 133654                      | 8736  | 8736  | 8736  | 8904  | 8568 | 8736 | 8684  | 199754                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |       |       |       |       |      |      |       |                             |
|   | HOURS | 118154                      | 7338  | 8256  | 7504  | 7933  | 5172 | 6657 | 6770  | 167785                      |
| FACTOR OF :                               |       |                             |       |       |       |       |      |      |       |                             |
| ENERGY AVAILABILITY                       | %     | 72                          | 84    | 88    | 81    | 84    | 58   | 87   | 78    | 74                          |
| LOAD FACTOR                               | %     | 71                          | 84    | 95    | 86    | 89    | 59   | 76   | 78    | 74                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG  | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 261   | 257   | 323  | 246   | 123   | 155   | 121   | 122  | 284   | 245   | 184   | 312   | 2633  |
| PRODUCTION OF ENERGY :                |       |       |       |      |       |       |       |       |      |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 972   | 938   | 1173 | 976   | 484   | 605   | 478   | 532  | 1106  | 924   | 718   | 1176  | 10082 |
| ELECTRICAL GENERATED                  | GWH   | 305   | 294   | 366  | 299   | 148   | 185   | 144   | 154  | 335   | 287   | 219   | 366   | 3102  |
| ELECTRICAL NET                        | GWH   | 262   | 258   | 314  | 256   | 124   | 156   | 121   | 123  | 285   | 246   | 185   | 313   | 2641  |
| MAX. ELECTRICAL POWER NET      MW     |       |       |       |      |       |       |       |       |      |       |       |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |      |       |       |       |       |      |       |       |       |       |       |
|                                       | HOURS | 672   | 672   | 815  | 696   | 672   | 840   | 672   | 620  | 840   | 673   | 672   | 840   | 8684  |
| FACTOR OF :                           |       |       |       |      |       |       |       |       |      |       |       |       |       |       |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 92.3 | 100.0 | 100.0 | 100.0 | 100.0 | 99.4  |
| ENERGY AVAILABILITY                   | %     | 99.9  | 98.3  | 98.9 | 94.2  | 47.3  | 47.5  | 46.3  | 46.9 | 86.9  | 93.6  | 70.5  | 95.4  | 77.5  |
| ENERGY UNAVAILABILITY                 | %     | 0.1   | 1.7   | 1.1  | 5.8   | 52.7  | 52.5  | 53.7  | 53.1 | 13.1  | 6.4   | 27.5  | 4.6   | 22.5  |
| OF WHICH: PLANNED                     | %     | 0.1   | 1.7   | 1.1  | 5.8   | 52.7  | 52.5  | 53.7  | 39.3 | 13.1  | 6.4   | 1.5   | 4.6   | 19.5  |
| UNPLANNED                             | %     | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 13.8 | 0.0   | 0.0   | 25.0  | 0.0   | 3.0   |
| LOAD FACTOR                           | %     | 99.9  | 98.3  | 96.0 | 97.8  | 47.3  | 47.6  | 46.3  | 46.9 | 86.9  | 93.6  | 70.5  | 95.4  | 77.5  |
| NET THERMAL EFFICIENCY                | %     | 26.9  | 27.5  | 26.8 | 26.3  | 25.6  | 25.8  | 25.4  | 23.1 | 25.7  | 26.6  | 25.7  | 26.6  | 26.2  |

STATION : HINKLEY POINT A

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |        |
|----------------------------|------------|-----------------------------|--------|
| TYPE OF REACTOR            | GCR        | THERMAL CAPACITY OF REACTOR | 900 MW |
| FIRST CRITICALITY          | 00.05.1964 | INSTALLED CAPACITY          | 540 MW |
| FIRST CONNECTION TO GRID   | 16.02.1965 | MAXIMUM OUTPUT CAPACITY     | 470 MW |
| FIRST COMMERCIAL OPERATION | 30.03.1965 |                             |        |

| ANNUAL OPERATING DATA                     |       | CUMULATED |       |       |       |       |       |       |       | CUMULATED |
|---|-------|-----------|-------|-------|-------|-------|-------|-------|-------|-----------|
|   |       | AT        | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | AT        |
|   |       | 31.12.83  |       |       |       |       |       |       |       | 31.12.90  |
| PRODUCTION OF ENERGY :                    |       |           |       |       |       |       |       |       |       |           |
| THERMAL                                   | GWH   | 227636    | 14227 | 14297 | 14391 | 15050 | 14971 | 11721 | 11135 | 323428    |
| ELECTRICAL GENERATED                      | GWH   | 64027     | 4032  | 4117  | 4169  | 4351  | 4300  | 3263  | 3140  | 91397     |
| ELECTRICAL NET                            | GWH   | 54438     | 3434  | 3516  | 3556  | 3709  | 3643  | 2756  | 2650  | 77702     |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |           |       |       |       |       |       |       |       |           |
|   | HOURS | 159146    | 8736  | 8736  | 8736  | 8904  | 8568  | 8092  | 8354  | 217272    |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |           |       |       |       |       |       |       |       |           |
|   | HOURS | 118123    | 7985  | 8177  | 8273  | 8628  | 7749  | 5862  | 5635  | 170431    |
| FACTOR OF :                               |       |           |       |       |       |       |       |       |       |           |
| ENERGY AVAILABILITY                       | X     | 74        | 91    | 88    | 90    | 90    | 90    | 75    | 64    | 76        |
| LOAD FACTOR                               | X     | 71        | 91    | 94    | 95    | 97    | 89    | 67    | 65    | 75        |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB  | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 248  | 71   | 187  | 140   | 263   | 363   | 286   | 281   | 239   | 139   | 105   | 288   | 2610  |
| PRODUCTION OF ENERGY :                |       |      |      |      |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 1021 | 314  | 736  | 638   | 1124  | 1513  | 1201  | 1198  | 1014  | 581   | 608   | 1187  | 11135 |
| ELECTRICAL GENERATED                  | GWH   | 293  | 88   | 209  | 180   | 318   | 424   | 336   | 332   | 283   | 162   | 173   | 342   | 3140  |
| ELECTRICAL NET                        | GWH   | 248  | 72   | 176  | 152   | 263   | 362   | 284   | 281   | 239   | 137   | 146   | 288   | 2650  |
| MAX. ELECTRICAL POWER NET             | MW    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |      |      |      |       |       |       |       |       |       |       |       |       |       |
|                                       | HOURS | 603  | 359  | 815  | 696   | 672   | 840   | 672   | 672   | 840   | 673   | 672   | 840   | 8354  |
| FACTOR OF :                           |       |      |      |      |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | X     | 89.7 | 53.4 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 95.6  |
| ENERGY AVAILABILITY                   | X     | 78.7 | 22.7 | 47.6 | 44.4  | 83.2  | 92.0  | 90.6  | 89.1  | 60.5  | 44.1  | 33.4  | 73.1  | 63.7  |
| ENERGY UNAVAILABILITY                 | X     | 21.3 | 77.3 | 52.4 | 55.6  | 16.8  | 8.0   | 9.4   | 10.9  | 39.5  | 55.9  | 66.6  | 26.9  | 36.3  |
| OF WHICH: PLANNED                     | X     | 0.0  | 0.0  | 0.0  | 3.8   | 11.4  | 0.0   | 9.4   | 10.9  | 39.5  | 50.0  | 50.0  | 14.3  | 15.6  |
| UNPLANNED                             | X     | 21.3 | 77.3 | 52.4 | 51.8  | 5.4   | 8.0   | 0.0   | 0.0   | 0.0   | 5.9   | 16.6  | 12.6  | 20.7  |
| LOAD FACTOR                           | X     | 78.7 | 22.7 | 44.7 | 48.0  | 83.3  | 91.8  | 90.0  | 89.1  | 60.5  | 43.4  | 46.3  | 73.1  | 64.5  |
| NET THERMAL EFFICIENCY                | X     | 24.3 | 22.8 | 23.9 | 23.8  | 23.4  | 23.9  | 23.7  | 23.5  | 23.6  | 23.6  | 24.1  | 24.3  | 23.8  |

STATION : DUNGENESS A

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | GCR        | THERMAL CAPACITY OF REACTOR | 1680 | MW |
| FIRST CRITICALITY          | 00.06.1965 | INSTALLED CAPACITY          | 424  | MW |
| FIRST CONNECTION TO GRID   | 21.09.1965 | MAXIMUM OUTPUT CAPACITY     | 424  | MW |
| FIRST COMMERCIAL OPERATION | 28.10.1965 |                             |      |    |

| ANNUAL OPERATING DATA                        |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985  | 1986 | 1987  | 1988 | 1989 | 1990  | CUMULATED<br>AT<br>31.12.90 |
|--|-------|-----------------------------|-------|-------|------|-------|------|------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                       |       |                             |       |       |      |       |      |      |       |                             |
| THERMAL                                      | GWH   | 173081                      | 10187 | 12008 | 9535 | 10983 | 7490 | 7773 | 10605 | 241662                      |
| ELECTRICAL GENERATED                         | GWH   | 51300                       | 3027  | 3527  | 2736 | 3172  | 2181 | 2303 | 3114  | 71360                       |
| ELECTRICAL NET                               | GWH   | 49360                       | 2914  | 3403  | 2628 | 3075  | 2085 | 2203 | 2995  | 66662                       |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS | 140746                      | 8736  | 8716  | 8678 | 8796  | 8568 | 8736 | 8711  | 201687                      |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS | 109744                      | 7102  | 8299  | 6194 | 7257  | 4918 | 5198 | 7067  | 155780                      |
| FACTOR OF :                                  |       |                             |       |       |      |       |      |      |       |                             |
| ENERGY AVAILABILITY                          | %     | 68                          | 77    | 90    | 69   | 81    | 62   | 60   | 81    | 69                          |
| LOAD FACTOR                                  | %     | 66                          | 81    | 95    | 71   | 82    | 56   | 60   | 81    | 68                          |

MONTHLY OPERATING DATA DURING 1990

|  |       | JAN  | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|--|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                         | GWH   | 235  | 248   | 299  | 258   | 263   | 325   | 233   | 248   | 320   | 250   | 138   | 178   | 2995  |
| PRODUCTION OF ENERGY :                   |       |      |       |      |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                           | GWH   | 837  | 854   | 998  | 927   | 922   | 1154  | 833   | 897   | 1147  | 895   | 500   | 641   | 10605 |
| ELECTRICAL GENERATED                     | GWH   | 244  | 257   | 300  | 278   | 273   | 337   | 243   | 258   | 332   | 260   | 146   | 187   | 3114  |
| ELECTRICAL NET                           | GWH   | 235  | 248   | 289  | 262   | 264   | 325   | 234   | 248   | 320   | 251   | 139   | 179   | 2995  |
| MAX. ELECTRICAL POWER NET                | MW    |      |       |      |       |       |       |       |       |       |       |       |       |       |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 647  | 672   | 815  | 696   | 672   | 840   | 672   | 672   | 840   | 673   | 672   | 840   | 8711  |
| FACTOR OF :                              |       |      |       |      |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                         | %     | 96.3 | 100.0 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 99.7  |
| ENERGY AVAILABILITY                      | %     | 82.5 | 87.2  | 84.2 | 90.5  | 92.6  | 91.3  | 82.0  | 87.2  | 90.0  | 87.9  | 48.7  | 50.2  | 81.0  |
| ENERGY UNAVAILABILITY                    | %     | 17.5 | 12.8  | 15.8 | 9.5   | 7.4   | 8.7   | 18.0  | 12.8  | 10.0  | 12.1  | 51.3  | 49.8  | 19.0  |
| OF WHICH: PLANNED                        | %     | 17.5 | 0.0   | 0.0  | 5.9   | 0.0   | 0.0   | 7.3   | 9.2   | 10.0  | 1.8   | 51.3  | 49.8  | 12.9  |
| UNPLANNED                                | %     | 0.0  | 12.8  | 15.8 | 3.6   | 7.4   | 8.7   | 10.7  | 3.6   | 0.0   | 10.3  | 0.0   | 0.0   | 6.1   |
| LOAD FACTOR                              | %     | 82.5 | 87.2  | 81.4 | 92.0  | 92.6  | 91.3  | 82.0  | 87.2  | 90.0  | 88.0  | 48.7  | 50.2  | 80.9  |
| NET THERMAL EFFICIENCY                   | %     | 28.1 | 29.1  | 29.0 | 28.3  | 28.6  | 28.2  | 28.1  | 27.7  | 27.9  | 28.1  | 27.7  | 27.9  | 28.2  |



STATION : SIZEWELL A

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | GCR        | THERMAL CAPACITY OF REACTOR | 2020 | MW |
| FIRST CRITICALITY          | 00.06.1965 | INSTALLED CAPACITY          | 500  | MW |
| FIRST CONNECTION TO GRID   | 21.01.1966 | MAXIMUM OUTPUT CAPACITY     | 420  | MW |
| FIRST COMMERCIAL OPERATION | 25.03.1966 |                             |      |    |

ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985  | 1986 | 1987  | 1988  | 1989  | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|-------|------|-------|-------|-------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |       |      |       |       |       |       |                             |
| THERMAL                                   | GWH   | 193888                      | 7167 | 10215 | 7715 | 10669 | 10301 | 10167 | 10378 | 260500                      |
| ELECTRICAL GENERATED                      | GWH   | 61479                       | 2227 | 3220  | 2402 | 3302  | 3210  | 3110  | 3219  | 82167                       |
| ELECTRICAL NET                            | GWH   | 51765                       | 1845 | 2689  | 1988 | 2760  | 2673  | 2595  | 2692  | 69006                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |       |      |       |       |       |       |                             |
|   | HOURS | 151557                      | 7256 | 8691  | 8656 | 8904  | 8530  | 8433  | 8016  | 210043                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |       |      |       |       |       |       |                             |
|   | HOURS | 120281                      | 4394 | 6403  | 4735 | 6571  | 6360  | 6176  | 6412  | 161333                      |
| FACTOR OF :                               |       |                             |      |       |      |       |       |       |       |                             |
| ENERGY AVAILABILITY                       | %     | 78                          | 51   | 71    | 53   | 73    | 72    | 71    | 73    | 75                          |
| LOAD FACTOR                               | %     | 76                          | 50   | 73    | 54   | 74    | 73    | 71    | 73    | 74                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP  | OCT  | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 282   | 282   | 352   | 282   | 201   | 170   | 133   | 132   | 25   | 177  | 282   | 353   | 2671  |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |      |      |       |       |       |
| THERMAL ENERGY                        | GWH   | 1080  | 1089  | 1332  | 1137  | 786   | 663   | 533   | 533   | 117  | 693  | 1098  | 1316  | 10378 |
| ELECTRICAL GENERATED                  | GWH   | 336   | 337   | 413   | 352   | 242   | 205   | 162   | 161   | 35   | 213  | 340   | 422   | 3219  |
| ELECTRICAL NET                        | GWH   | 283   | 284   | 348   | 296   | 202   | 170   | 134   | 133   | 25   | 173  | 287   | 356   | 2692  |
| MAX. ELECTRICAL POWER NET             | MW    |       |       |       |       |       |       |       |       |      |      |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |       |       |       |       |       |      |      |       |       |       |
|                                       | HOURS | 672   | 672   | 815   | 696   | 672   | 840   | 672   | 672   | 146  | 647  | 672   | 840   | 8016  |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |      |      |       |       |       |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 97.1  | 103.6 | 100.0 | 100.0 | 100.0 | 100.0 | 17.4 | 96.1 | 100.0 | 100.0 | 91.8  |
| ENERGY AVAILABILITY                   | %     | 100.0 | 100.0 | 100.0 | 100.0 | 71.4  | 48.4  | 47.3  | 47.1  | 7.2  | 62.5 | 100.0 | 100.0 | 72.9  |
| ENERGY UNAVAILABILITY                 | %     | 0.0   | 0.0   | 0.0   | 0.0   | 28.6  | 51.6  | 52.7  | 52.9  | 92.8 | 37.5 | 0.0   | 0.0   | 27.1  |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 0.0   | 28.6  | 51.6  | 52.7  | 52.9  | 92.8 | 37.5 | 0.0   | 0.0   | 27.1  |
| UNPLANNED                             | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   |
| LOAD FACTOR                           | %     | 100.3 | 100.8 | 98.9  | 105.0 | 71.5  | 48.2  | 47.3  | 47.1  | 7.2  | 61.2 | 101.8 | 100.8 | 73.4  |
| NET THERMAL EFFICIENCY                | %     | 26.2  | 26.1  | 26.2  | 26.1  | 25.7  | 25.6  | 25.1  | 24.9  | 21.8 | 25.0 | 26.2  | 27.0  | 25.9  |

STATION : OLDBURY A

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | GCR        | THERMAL CAPACITY OF REACTOR | 1460 | MW |
| FIRST CRITICALITY          | 00.08.1967 | INSTALLED CAPACITY          | 450  | MW |
| FIRST CONNECTION TO GRID   | 07.11.1967 | MAXIMUM OUTPUT CAPACITY     | 434  | MW |
| FIRST COMMERCIAL OPERATION | 31.12.1967 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |       |       |       |       |       |       |       |                             |
| THERMAL                                   | GWH   | 167103                      | 10861 | 11969 | 12038 | 11655 | 12305 | 10598 | 10564 | 247093                      |
| ELECTRICAL GENERATED                      | GWH   | 48257                       | 3158  | 3441  | 3428  | 3343  | 3500  | 3029  | 2998  | 71154                       |
| ELECTRICAL NET                            | GWH   | 46457                       | 3041  | 3323  | 3307  | 3222  | 3375  | 2915  | 2915  | 68555                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |       |       |       |       |       |       |       |                             |
|   | HOURS | 135813                      | 8736  | 8701  | 8650  | 8904  | 8530  | 8644  | 8713  | 194691                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |       |       |       |       |       |       |       |                             |
|   | HOURS | 108935                      | 7006  | 7653  | 7618  | 7426  | 7775  | 6718  | 6718  | 159849                      |
| FACTOR OF :                               |       |                             |       |       |       |       |       |       |       |                             |
| ENERGY AVAILABILITY                       | %     | 79                          | 77    | 83    | 83    | 83    | 86    | 82    | 76    | 79                          |
| LOAD FACTOR                               | %     | 78                          | 80    | 88    | 87    | 83    | 89    | 77    | 77    | 79                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV  | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 284   | 194   | 176  | 132   | 137   | 172   | 240   | 278   | 354   | 285   | 270  | 361   | 2883  |
| PRODUCTION OF ENERGY :                |       |       |       |      |       |       |       |       |       |       |       |      |       |       |
| THERMAL ENERGY                        | GWH   | 1011  | 705   | 608  | 519   | 508   | 634   | 907   | 1024  | 1323  | 1036  | 991  | 1298  | 10564 |
| ELECTRICAL GENERATED                  | GWH   | 294   | 203   | 174  | 149   | 144   | 180   | 250   | 288   | 367   | 295   | 280  | 374   | 2998  |
| ELECTRICAL NET                        | GWH   | 284   | 194   | 166  | 142   | 138   | 172   | 270   | 278   | 354   | 285   | 270  | 361   | 2915  |
| MAX. ELECTRICAL POWER NET             | MW    |       |       |      |       |       |       |       |       |       |       |      |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |      |       |       |       |       |       |       |       |      |       |       |
|                                       | HOURS | 672   | 672   | 815  | 696   | 672   | 840   | 672   | 672   | 840   | 673   | 649  | 840   | 8713  |
| FACTOR OF :                           |       |       |       |      |       |       |       |       |       |       |       |      |       |       |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 96.6 | 100.0 | 99.7  |
| ENERGY AVAILABILITY                   | %     | 97.4  | 66.5  | 48.5 | 45.2  | 47.1  | 47.3  | 82.4  | 95.2  | 97.1  | 97.6  | 92.8 | 99.2  | 76.1  |
| ENERGY UNAVAILABILITY                 | %     | 2.6   | 33.5  | 51.5 | 54.8  | 52.9  | 52.7  | 17.6  | 4.8   | 2.9   | 2.4   | 7.2  | 0.8   | 23.9  |
| OF WHICH: PLANNED                     | %     | 2.6   | 33.5  | 51.5 | 54.8  | 52.9  | 52.7  | 17.6  | 4.8   | 2.9   | 0.0   | 3.6  | 0.8   | 23.4  |
| UNPLANNED                             | %     | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 2.4   | 3.6  | 0.0   | 0.5   |
| LOAD FACTOR                           | %     | 97.4  | 66.5  | 45.6 | 48.8  | 47.2  | 47.1  | 92.7  | 95.2  | 97.1  | 97.6  | 92.7 | 99.2  | 76.9  |
| NET THERMAL EFFICIENCY                | %     | 28.1  | 27.5  | 27.3 | 27.4  | 27.1  | 27.1  | 29.8  | 27.1  | 26.7  | 27.5  | 27.3 | 27.9  | 27.6  |

STATION : WYLFA

UNITED KINGDOM

GENERAL DATA

TYPE OF REACTOR                   OCR  
 FIRST CRITICALITY               00.11.1969  
 FIRST CONNECTION TO GRID       24.01.1971  
 FIRST COMMERCIAL OPERATION     01.11.1971

SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR     3840 MW  
 INSTALLED CAPACITY               990 MW  
 MAXIMUM OUTPUT CAPACITY         840 MW

ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |       |       |       |       |       |       |       |                             |
| THERMAL                                   | GWH   | 216717                      | 25406 | 25328 | 23077 | 17133 | 23261 | 25042 | 25371 | 381335                      |
| ELECTRICAL GENERATED                      | GWH   | 65774                       | 7926  | 7854  | 7245  | 5337  | 7312  | 7788  | 7935  | 117170                      |
| ELECTRICAL NET                            | GWH   | 55089                       | 6758  | 6683  | 6165  | 4389  | 6172  | 6614  | 6746  | 95616                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |       |       |       |       |       |       |       |                             |
|   | HOURS | 96430                       | 8728  | 8736  | 8666  | 8611  | 8530  | 8572  | 8549  | 154822                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |       |       |       |       |       |       |       |                             |
|   | HOURS | 66860                       | 8046  | 7958  | 7338  | 5227  | 7347  | 7870  | 8028  | 118675                      |
| FACTOR OF :                               |       |                             |       |       |       |       |       |       |       |                             |
| ENERGY AVAILABILITY                       | %     | 66                          | 89    | 88    | 81    | 59    | 84    | 88    | 90    | 72                          |
| LOAD FACTOR                               | %     | 64                          | 92    | 91    | 84    | 59    | 84    | 90    | 92    | 71                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB   | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 507  | 564   | 701  | 564   | 564   | 595   | 563   | 555   | 397   | 311   | 564   | 706   | 6591  |
| PRODUCTION OF ENERGY :                |       |      |       |      |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 1864 | 2169  | 2549 | 2266  | 2195  | 2285  | 2205  | 2199  | 1385  | 1236  | 2293  | 2726  | 25371 |
| ELECTRICAL GENERATED                  | GWH   | 599  | 687   | 798  | 711   | 682   | 701   | 667   | 657   | 472   | 373   | 729   | 858   | 7935  |
| ELECTRICAL NET                        | GWH   | 507  | 586   | 681  | 606   | 580   | 590   | 566   | 556   | 397   | 312   | 627   | 736   | 6746  |
| MAX. ELECTRICAL POWER NET       MW    |       |      |       |      |       |       |       |       |       |       |       |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 522  | 672   | 815  | 696   | 672   | 840   | 672   | 672   | 840   | 673   | 672   | 803   | 8549  |
| FACTOR OF :                           |       |      |       |      |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | %     | 77.7 | 100.0 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 95.6  | 97.9  |
| ENERGY AVAILABILITY                   | %     | 89.9 | 100.0 | 99.5 | 100.0 | 100.0 | 84.3  | 99.9  | 98.5  | 56.3  | 55.2  | 100.0 | 100.0 | 89.9  |
| ENERGY UNAVAILABILITY                 | %     | 10.1 | 0.0   | 0.5  | 0.0   | 0.0   | 15.7  | 0.1   | 1.5   | 43.7  | 44.8  | 0.0   | 0.0   | 10.1  |
| OF WHICH: PLANNED                     | %     | 0.0  | 0.0   | 0.5  | 0.0   | 0.0   | 0.0   | 0.1   | 1.5   | 43.7  | 44.8  | 0.0   | 0.0   | 7.8   |
| UNPLANNED                             | %     | 10.1 | 0.0   | 0.0  | 0.0   | 0.0   | 15.7  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 2.3   |
| LOAD FACTOR                           | %     | 89.9 | 103.8 | 96.6 | 107.4 | 102.8 | 83.7  | 100.3 | 98.5  | 56.3  | 55.2  | 111.1 | 104.3 | 91.9  |
| NET THERMAL EFFICIENCY                | %     | 27.2 | 27.0  | 26.7 | 26.7  | 26.4  | 25.8  | 25.7  | 25.3  | 28.7  | 25.3  | 27.4  | 27.0  | 26.6  |

STATION : HUNTERSTON B1

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1496 | MW |
| FIRST CRITICALITY          | 31.01.1976 | INSTALLED CAPACITY          | 623  | MW |
| FIRST CONNECTION TO GRID   | 06.02.1976 | MAXIMUM OUTPUT CAPACITY     | 575  | MW |
| FIRST COMMERCIAL OPERATION | 00.02.1976 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985 | 1986  | 1987 | 1988  | 1989 | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|-------|------|-------|------|-------|------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |       |      |       |      |       |      |       |                             |
| THERMAL                                   | GWH   | 47707                       | 11326 | 9605 | 12025 | 8701 | 11663 | 7759 | 12335 | 121121                      |
| ELECTRICAL GENERATED                      | GWH   | 19139                       | 4608  | 3974 | 4982  | 3584 | 4908  | 3239 | 5614  | 50048                       |
| ELECTRICAL NET                            | GWH   | 17089                       | 4214  | 3634 | 4571  | 3263 | 4493  | 2953 | 4744  | 41960                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |       |      |       |      |       |      |       |                             |
|   | HOURS | 40479                       | 8080  | 6655 | 8268  | 6358 | 8658  | 5467 | 8585  | 92550                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |       |      |       |      |       |      |       |                             |
|   | HOURS | 33757                       | 7723  | 6386 | 7950  | 5672 | 7810  | 5137 | 8247  | 82680                       |
| FACTOR OF :                               |       |                             |       |      |       |      |       |      |       |                             |
| ENERGY AVAILABILITY                       | %     | 50                          | 86    | 71   | 89    | 64   | 89    | 58   | 93    | 64                          |
| LOAD FACTOR                               | %     | 49                          | 88    | 73   | 91    | 64   | 89    | 59   | 94    | 63                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN  | JUL   | AUG  | SEP   | OCT  | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 384   | 374   | 441   | 355   | 358   | 427  | 352   | 301  | 475   | 367  | 359   | 453   | 4646  |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |      |       |      |       |      |       |       |       |
| THERMAL ENERGY                        | GWH   | 1026  | 976   | 1173  | 945   | 1007  | 1142 | 932   | 796  | 1235  | 955  | 942   | 1207  | 12335 |
| ELECTRICAL GENERATED                  | GWH   | 433   | 410   | 491   | 396   | 424   | 476  | 389   | 330  | 572   | 399  | 792   | 503   | 5614  |
| ELECTRICAL NET                        | GWH   | 401   | 378   | 451   | 364   | 391   | 437  | 357   | 301  | 477   | 367  | 360   | 462   | 4744  |
| MAX. ELECTRICAL POWER NET             | MW    |       |       |       |       |       |      |       |      |       |      |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |       |       |      |       |      |       |      |       |       |       |
|                                       | HOURS | 672   | 672   | 839   | 674   | 672   | 796  | 672   | 563  | 840   | 672  | 673   | 840   | 8585  |
| FACTOR OF :                           |       |       |       |       |       |       |      |       |      |       |      |       |       |       |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 100.0 | 100.3 | 100.0 | 94.8 | 100.0 | 83.8 | 100.0 | 99.9 | 100.1 | 100.0 | 98.3  |
| ENERGY AVAILABILITY                   | %     | 99.6  | 97.1  | 91.6  | 92.1  | 93.0  | 88.6 | 91.3  | 78.2 | 98.4  | 94.9 | 93.1  | 93.8  | 92.7  |
| ENERGY UNAVAILABILITY                 | %     | 0.4   | 2.9   | 8.4   | 7.9   | 7.0   | 11.4 | 8.7   | 21.8 | 1.6   | 5.1  | 6.9   | 6.2   | 7.3   |
| OF WHICH: PLANNED                     | %     | 0.2   | 2.9   | 8.4   | 7.9   | 7.0   | 4.6  | 8.7   | 21.4 | 1.4   | 5.1  | 6.9   | 6.2   | 6.6   |
| UNPLANNED                             | %     | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 6.8  | 0.0   | 0.4  | 0.2   | 0.0  | 0.0   | 0.0   | 0.7   |
| LOAD FACTOR                           | %     | 103.6 | 97.8  | 93.4  | 94.1  | 101.3 | 90.4 | 92.5  | 77.8 | 98.7  | 94.7 | 93.2  | 95.7  | 94.4  |
| NET THERMAL EFFICIENCY                | %     | 39.0  | 38.7  | 38.4  | 38.4  | 38.8  | 38.2 | 38.3  | 37.8 | 38.6  | 38.4 | 38.2  | 38.3  | 38.5  |

## GENERAL DATA

## SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1496 | MW |
| FIRST CRITICALITY          | 27.03.1977 | INSTALLED CAPACITY          | 623  | MW |
| FIRST CONNECTION TO GRID   | 31.03.1977 | MAXIMUM OUTPUT CAPACITY     | 575  | MW |
| FIRST COMMERCIAL OPERATION | 00.03.1977 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985  | 1986 | 1987  | 1988 | 1989  | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|-------|------|-------|------|-------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |       |      |       |      |       |      |                             |
| THERMAL                                   | GWH   | 36834                       | 8658 | 11835 | 9524 | 12181 | 8191 | 12376 | 8686 | 100285                      |
| ELECTRICAL GENERATED                      | GWH   | 14945                       | 3600 | 4909  | 3950 | 5043  | 3400 | 5148  | 3522 | 44517                       |
| ELECTRICAL NET                            | GWH   | 13412                       | 3280 | 4507  | 3614 | 4623  | 3106 | 4728  | 3223 | 40494                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |       |      |       |      |       |      |                             |
|   | HOURS | 30215                       | 6364 | 8303  | 6497 | 8710  | 5755 | 8643  | 5858 | 80345                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |       |      |       |      |       |      |                             |
|   | HOURS | 26442                       | 6010 | 7924  | 6281 | 8040  | 5399 | 8221  | 5609 | 73925                       |
| FACTOR OF :                               |       |                             |      |       |      |       |      |       |      |                             |
| ENERGY AVAILABILITY                       | %     | 45                          | 69   | 89    | 71   | 90    | 61   | 94    | 64   | 61                          |
| LOAD FACTOR                               | %     | 44                          | 69   | 91    | 72   | 90    | 62   | 94    | 64   | 61                          |

## MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB  | MAR   | APR   | MAY   | JUN  | JUL   | AUG   | SEP   | OCT  | NOV   | DEC   | YEAR |
|---------------------------------------|-------|-------|------|-------|-------|-------|------|-------|-------|-------|------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 357   | 351  | 452   | 386   | 383   | 337  | 0     | 0     | 0     | 89   | 376   | 467   | 3198 |
| PRODUCTION OF ENERGY :                |       |       |      |       |       |       |      |       |       |       |      |       |       |      |
| THERMAL ENERGY                        | GWH   | 950   | 936  | 1206  | 1028  | 962   | 1142 | 0     | 0     | 0     | 265  | 979   | 1218  | 8686 |
| ELECTRICAL GENERATED                  | GWH   | 397   | 392  | 505   | 432   | 401   | 373  | 0     | 0     | 0     | 106  | 409   | 508   | 3522 |
| ELECTRICAL NET                        | GWH   | 365   | 361  | 465   | 400   | 369   | 339  | -2    | -1    | -2    | 89   | 377   | 468   | 3223 |
| MAX. ELECTRICAL POWER NET             |       |       |      |       |       |       |      |       |       |       |      |       |       |      |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 672   | 646  | 839   | 674   | 672   | 618  | 0     | 0     | 0     | 224  | 673   | 840   | 5858 |
| FACTOR OF :                           |       |       |      |       |       |       |      |       |       |       |      |       |       |      |
| TIME UTILISATION                      | %     | 100.0 | 96.1 | 100.0 | 100.3 | 100.0 | 73.6 | 0.0   | 0.0   | 0.0   | 33.3 | 100.1 | 100.0 | 67.1 |
| ENERGY AVAILABILITY                   | %     | 92.6  | 91.1 | 93.7  | 100.0 | 99.4  | 69.8 | 0.0   | 0.0   | 0.0   | 23.1 | 97.5  | 95.8  | 63.8 |
| ENERGY UNAVAILABILITY                 | %     | 7.4   | 8.9  | 6.3   | 0.0   | 0.6   | 30.2 | 100.0 | 100.0 | 100.0 | 76.9 | 2.5   | 3.2   | 36.2 |
| OF WHICH: PLANNED                     | %     | 7.2   | 4.4  | 6.1   | 0.0   | 0.6   | 24.2 | 100.0 | 100.0 | 100.0 | 76.9 | 2.5   | 3.2   | 35.3 |
| UNPLANNED                             | %     | 0.2   | 4.5  | 0.2   | 0.0   | 0.0   | 6.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.9  |
| LOAD FACTOR                           | %     | 94.5  | 93.3 | 96.3  | 103.4 | 95.5  | 70.1 | -     | -     | -     | 22.9 | 97.6  | 97.0  | 64.2 |
| NET THERMAL EFFICIENCY                | %     | 38.4  | 38.5 | 38.5  | 38.9  | 38.4  | 29.6 | -     | -     | -     | 33.3 | 30.5  | 38.4  | 37.1 |

STATION : HINKLEY POINT B (

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1494 | MW |
| FIRST CRITICALITY          | 00.09.1976 | INSTALLED CAPACITY          | 610  | MW |
| FIRST CONNECTION TO GRID   | 30.10.1976 | MAXIMUM OUTPUT CAPACITY     | 560  | MW |
| FIRST COMMERCIAL OPERATION | 02.10.1978 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985  | 1986 | 1987 | 1988 | 1989  | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|-------|-------|------|------|------|-------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |       |       |      |      |      |       |      |                             |
| THERMAL                                   | GWH   | 51744                       | 10170 | 11289 | 8492 | 5083 | 7808 | 11587 | 8243 | 114416                      |
| ELECTRICAL GENERATED                      | GWH   | 21220                       | 4170  | 4664  | 3475 | 2062 | 3184 | 4748  | 3395 | 45917                       |
| ELECTRICAL NET                            | GWH   | 19325                       | 3803  | 4250  | 3155 | 1848 | 2905 | 4195  | 3102 | 42584                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |       |       |      |      |      |       |      |                             |
|   | HOURS | 33285                       | 6589  | 8167  | 6109 | 3554 | 5370 | 7878  | 5732 | 76684                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |       |       |      |      |      |       |      |                             |
|   | HOURS | 37159                       | 7312  | 8168  | 5635 | 3303 | 5189 | 7495  | 5539 | 79801                       |
| FACTOR OF :                               |       |                             |       |       |      |      |      |       |      |                             |
| ENERGY AVAILABILITY                       | %     | 60                          | 84    | 91    | 66   | 39   | 59   | 91    | 63   | 65                          |
| LOAD FACTOR                               | %     | 59                          | 84    | 94    | 65   | 37   | 59   | 86    | 63   | 64                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB  | MAR  | APR  | MAY   | JUN   | JUL   | AUG  | SEP  | OCT   | NOV   | DEC   | YEAR |
|---------------------------------------|-------|-------|------|------|------|-------|-------|-------|------|------|-------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 376   | 309  | 466  | 133  | 0     | 0     | 0     | 224  | 407  | 347   | 366   | 466   | 3094 |
| PRODUCTION OF ENERGY :                |       |       |      |      |      |       |       |       |      |      |       |       |       |      |
| THERMAL ENERGY                        | GWH   | 995   | 827  | 1193 | 388  | 0     | 0     | 0     | 618  | 1097 | 930   | 974   | 1221  | 8243 |
| ELECTRICAL GENERATED                  | GWH   | 413   | 340  | 495  | 161  | 0     | 0     | 0     | 250  | 446  | 379   | 401   | 509   | 3395 |
| ELECTRICAL NET                        | GWH   | 378   | 310  | 453  | 147  | 0     | 0     | 0     | 225  | 408  | 347   | 367   | 467   | 3102 |
| MAX. ELECTRICAL POWER NET             |       |       |      |      |      |       |       |       |      |      |       |       |       |      |
|                                       | MW    |       |      |      |      |       |       |       |      |      |       |       |       |      |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |      |      |      |       |       |       |      |      |       |       |       |      |
|                                       | HOURS | 672   | 613  | 815  | 247  | 0     | 0     | 0     | 430  | 770  | 673   | 672   | 840   | 5732 |
| FACTOR OF :                           |       |       |      |      |      |       |       |       |      |      |       |       |       |      |
| TIME UTILISATION                      | %     | 100.0 | 91.2 | 97.1 | 36.8 | 0.0   | 0.0   | 0.0   | 64.0 | 91.7 | 100.0 | 100.0 | 100.0 | 65.6 |
| ENERGY AVAILABILITY                   | %     | 100.0 | 82.3 | 99.3 | 35.4 | 0.0   | 0.0   | 0.0   | 59.9 | 86.7 | 92.1  | 97.5  | 99.2  | 63.4 |
| ENERGY UNAVAILABILITY                 | %     | 0.0   | 17.7 | 0.7  | 64.6 | 100.0 | 100.0 | 100.0 | 40.1 | 13.3 | 7.9   | 2.5   | 0.8   | 36.6 |
| OF WHICH: PLANNED                     | %     | 0.0   | 11.0 | 0.7  | 64.6 | 100.0 | 100.0 | 0.0   | 0.0  | 4.7  | 7.9   | 2.5   | 0.8   | 24.5 |
| UNPLANNED                             | %     | 0.0   | 6.7  | 0.0  | 0.0  | 0.0   | 0.0   | 100.0 | 40.1 | 8.6  | 0.0   | 0.0   | 0.0   | 12.1 |
| LOAD FACTOR                           | %     | 100.5 | 82.3 | 96.4 | 39.0 | 0.0   | 0.0   | 0.0   | 59.9 | 86.7 | 92.1  | 97.5  | 99.2  | 63.4 |
| NET THERMAL EFFICIENCY                | %     | 38.0  | 37.5 | 38.0 | 37.8 | -     | -     | -     | 36.5 | 37.2 | 37.3  | 37.7  | 38.2  | 37.6 |

## GENERAL DATA

TYPE OF REACTOR                   AGR  
 FIRST CRITICALITY               00.02.1976  
 FIRST CONNECTION TO GRID       05.02.1976  
 FIRST COMMERCIAL OPERATION     27.09.1976

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR     1494 MW  
 INSTALLED CAPACITY               610 MW  
 MAXIMUM OUTPUT CAPACITY         560 MW

## ANNUAL OPERATING DATA

|   |       | CUMULATED      |       |      |      |      |       |      |       | CUMULATED<br>AT<br>31.12.90 |
|---|-------|----------------|-------|------|------|------|-------|------|-------|-----------------------------|
|   |       | AT<br>31.12.83 | 1984  | 1985 | 1986 | 1987 | 1988  | 1989 | 1990  |                             |
| PRODUCTION OF ENERGY :                    |       |                |       |      |      |      |       |      |       |                             |
| THERMAL                                   | GWH   | 50521          | 12040 | 8485 | 9629 | 8031 | 11511 | 6704 | 12009 | 118930                      |
| ELECTRICAL GENERATED                      | GWH   | 20715          | 4936  | 3540 | 3923 | 3236 | 4690  | 2734 | 4901  | 40675                       |
| ELECTRICAL NET                            | GWH   | 18584          | 4502  | 3240 | 3555 | 2916 | 4268  | 2485 | 4464  | 41013                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                |       |      |      |      |       |      |       |                             |
|   | HOURS | 31385          | 8288  | 5950 | 7237 | 6333 | 8467  | 4896 | 8565  | 81121                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                |       |      |      |      |       |      |       |                             |
|   | HOURS | 35743          | 8657  | 6229 | 6351 | 5209 | 7618  | 4438 | 7967  | 82212                       |
| FACTOR OF :                               |       |                |       |      |      |      |       |      |       |                             |
| ENERGY AVAILABILITY                       | %     | 52             | 99    | 67   | 70   | 61   | 87    | 51   | 91    | 63                          |
| LOAD FACTOR                               | %     | 51             | 99    | 71   | 73   | 59   | 87    | 51   | 91    | 63                          |

## MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB  | MAR  | APR   | MAY   | JUN   | JUL   | AUG  | SEP   | OCT   | NOV  | DEC   | YEAR  |
|---------------------------------------|-------|------|------|------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 294  | 348  | 429  | 351   | 322   | 461   | 331   | 322  | 445   | 362   | 337  | 453   | 4455  |
| PRODUCTION OF ENERGY :                |       |      |      |      |       |       |       |       |      |       |       |      |       |       |
| THERMAL ENERGY                        | GWH   | 797  | 923  | 1104 | 967   | 881   | 1260  | 918   | 887  | 1208  | 969   | 093  | 1202  | 12009 |
| ELECTRICAL GENERATED                  | GWH   | 328  | 383  | 455  | 401   | 357   | 512   | 368   | 355  | 486   | 395   | 367  | 494   | 4901  |
| ELECTRICAL NET                        | GWH   | 295  | 348  | 416  | 365   | 323   | 462   | 332   | 323  | 446   | 362   | 337  | 454   | 4464  |
| MAX. ELECTRICAL POWER NET     MW      |       |      |      |      |       |       |       |       |      |       |       |      |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS |       |      |      |      |       |       |       |       |      |       |       |      |       |       |
|                                       | HOURS | 615  | 633  | 815  | 696   | 672   | 840   | 672   | 635  | 840   | 673   | 634  | 840   | 8565  |
| FACTOR OF :                           |       |      |      |      |       |       |       |       |      |       |       |      |       |       |
| TIME UTILISATION                      | %     | 91.5 | 94.2 | 97.1 | 103.6 | 100.0 | 100.0 | 100.0 | 94.5 | 100.0 | 100.0 | 94.3 | 100.0 | 98.0  |
| ENERGY AVAILABILITY                   | %     | 78.4 | 92.6 | 91.4 | 93.5  | 85.9  | 98.3  | 88.2  | 85.9 | 94.7  | 96.0  | 82.7 | 96.4  | 91.3  |
| ENERGY UNAVAILABILITY                 | %     | 21.6 | 7.4  | 8.6  | 6.5   | 14.1  | 1.7   | 11.8  | 14.1 | 5.3   | 4.0   | 17.3 | 3.6   | 8.7   |
| OF WHICH: PLANNED                     | %     | 7.4  | 0.0  | 8.6  | 6.5   | 14.1  | 1.7   | 11.8  | 7.0  | 5.3   | 4.0   | 3.2  | 3.6   | 6.0   |
| UNPLANNED                             | %     | 14.2 | 7.4  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 7.1  | 0.0   | 0.0   | 7.1  | 0.0   | 2.7   |
| LOAD FACTOR                           | %     | 78.3 | 92.6 | 88.5 | 97.1  | 85.9  | 98.3  | 88.2  | 85.9 | 94.7  | 96.0  | 89.6 | 96.4  | 91.2  |
| NET THERMAL EFFICIENCY                | %     | 37.0 | 37.8 | 37.7 | 37.8  | 36.7  | 36.7  | 36.2  | 36.4 | 36.9  | 37.4  | 37.8 | 37.7  | 37.2  |

## GENERAL DATA

TYPE OF REACTOR                   AGR  
 FIRST CRITICALITY               00.12.1982  
 FIRST CONNECTION TO GRID       03.04.1983  
 FIRST COMMERCIAL OPERATION     01.04.1985

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR     1500 MW  
 INSTALLED CAPACITY               420 MW  
 MAXIMUM OUTPUT CAPACITY         360 MW

## ANNUAL OPERATING DATA

|  |       | CUMULATED      |      |      |      |      |      |      |      | CUMULATED<br>AT<br>31.12.90 |
|--|-------|----------------|------|------|------|------|------|------|------|-----------------------------|
|  |       | AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |                             |
| PRODUCTION OF ENERGY :                       |       |                |      |      |      |      |      |      |      |                             |
| THERMAL                                      | GWH   | 1250           | 1860 | 7398 | 3849 | 877  | 3905 | 2070 | 2818 | 24027                       |
| ELECTRICAL GENERATED                         | GWH   | 480            | 716  | 2801 | 1364 | 292  | 1430 | 764  | 938  | 6785                        |
| ELECTRICAL NET                               | GWH   | 311            | 553  | 2438 | 1165 | 152  | 1160 | 601  | 750  | 7129                        |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS | 661            | 2336 | 6117 | 4447 | 1179 | 3857 | 2650 | 5093 | 26340                       |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS | 704            | 1232 | 5416 | 2586 | 338  | 2577 | 1337 | 2088 | 16278                       |
| FACTOR OF :                                  |       |                |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                          | %     | 12             | 15   | 71   | 29   | 7    | 33   | 31   | 26   | 29                          |
| LOAD FACTOR                                  | %     | 12             | 14   | 62   | 30   | 4    | 30   | 15   | 24   | 24                          |

## MONTHLY OPERATING DATA DURING 1990

|  |       | JAN   | FEB   | MAR  | APR   | MAY  | JUN  | JUL  | AUG  | SEP  | OCT   | NOV  | DEC  | YEAR |
|--|-------|-------|-------|------|-------|------|------|------|------|------|-------|------|------|------|
| AVAILABLE ENERGY                         | GWH   | 0     | 0     | 59   | 70    | 123  | 69   | 76   | 93   | 102  | 0     | 91   | 139  | 822  |
| PRODUCTION OF ENERGY :                   |       |       |       |      |       |      |      |      |      |      |       |      |      |      |
| THERMAL ENERGY                           | GWH   | 0     | 0     | 220  | 295   | 218  | 287  | 318  | 333  | 356  | 0     | 324  | 467  | 2818 |
| ELECTRICAL GENERATED                     | GWH   | 0     | 0     | 64   | 94    | 65   | 87   | 97   | 116  | 129  | 0     | 113  | 174  | 938  |
| ELECTRICAL NET                           | GWH   | 0     | 0     | 51   | 79    | 53   | 70   | 76   | 94   | 103  | -7    | 91   | 140  | 750  |
| MAX. ELECTRICAL POWER NET                | MW    |       |       |      |       |      |      |      |      |      |       |      |      |      |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 0     | 0     | 393  | 673   | 487  | 560  | 508  | 605  | 793  | 0     | 525  | 549  | 5093 |
| FACTOR OF :                              |       |       |       |      |       |      |      |      |      |      |       |      |      |      |
| TIME UTILISATION                         | %     | 0.0   | 0.0   | 46.8 | 100.1 | 72.5 | 66.7 | 75.6 | 90.0 | 94.4 | 0.0   | 73.1 | 65.4 | 58.3 |
| ENERGY AVAILABILITY                      | %     | 0.0   | 0.0   | 19.8 | 29.0  | 50.9 | 23.2 | 31.6 | 38.8 | 34.1 | 0.0   | 37.8 | 46.4 | 26.4 |
| ENERGY UNAVAILABILITY                    | %     | 100.0 | 100.0 | 80.2 | 71.0  | 49.1 | 76.8 | 68.4 | 61.2 | 65.9 | 100.0 | 62.2 | 53.6 | 73.6 |
| OF WHICH: PLANNED                        | %     | 100.0 | 100.0 | 80.2 | 63.9  | 42.0 | 71.1 | 59.0 | 61.2 | 65.9 | 100.0 | 50.3 | 49.8 | 70.6 |
| UNPLANNED                                | %     | 0.0   | 0.0   | 0.0  | 7.1   | 7.1  | 5.7  | 9.4  | 0.0  | 0.0  | 0.0   | 3.9  | 3.8  | 3.0  |
| LOAD FACTOR                              | %     | 0.0   | 0.0   | 16.9 | 32.6  | 21.9 | 23.2 | 31.6 | 38.8 | 34.1 | -     | 37.7 | 46.4 | 23.9 |
| NET THERMAL EFFICIENCY                   | %     | -     | -     | 23.2 | 26.7  | 24.3 | 24.5 | 24.0 | 28.2 | 29.0 | -     | 28.2 | 30.0 | 26.6 |



STATION : DUNGENESS B2

UNITED KINGDOM

GENERAL DATA

TYPE OF REACTOR AGR  
 FIRST CRITICALITY 04.12.1985  
 FIRST CONNECTION TO GRID 29.12.1985  
 FIRST COMMERCIAL OPERATION 00.00.0000

SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 1500 MW  
 INSTALLED CAPACITY 420 MW  
 MAXIMUM OUTPUT CAPACITY 360 MW

ANNUAL OPERATING DATA

|   |       | CUMULATED AT |      |      |      |      |      |      | CUMULATED AT 31.12.90 |       |
|---|-------|--------------|------|------|------|------|------|------|-----------------------|-------|
|   |       | 31.12.83     | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |                       | 1990  |
| PRODUCTION OF ENERGY :                    |       |              |      |      |      |      |      |      |                       |       |
| THERMAL                                   | GWH   |              |      | 0    | 4317 | 2665 | 3357 | 757  | 2740                  | 13836 |
| ELECTRICAL GENERATED                      | GWH   |              |      | 0    | 1537 | 950  | 1217 | 276  | 885                   | 6864  |
| ELECTRICAL NET                            | GWH   |              |      | 0    | 1243 | 740  | 996  | 176  | 703                   | 3857  |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |              |      |      |      |      |      |      |                       |       |
|   | HOURS |              |      | 0    | 4937 | 3241 | 2838 | 696  | 4060                  | 15772 |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |              |      |      |      |      |      |      |                       |       |
|   | HOURS |              |      | 0    | 2761 | 1647 | 2210 | 393  | 1948                  | 8959  |
| FACTOR OF :                               |       |              |      |      |      |      |      |      |                       |       |
| ENERGY AVAILABILITY                       | %     |              |      | 0    | 28   | 18   | 29   | 14   | 23                    | 22    |
| LOAD FACTOR                               | %     |              |      | -    | 32   | 19   | 25   | 5    | 22                    | 20    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB  | MAR  | APR  | MAY   | JUN  | JUL  | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR |
|---------------------------------------|-------|------|------|------|------|-------|------|------|-------|-------|-------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 97   | 136  | 132  | 95   | 131   | 98   | 33   | 0     | 0     | 0     | 0     | 0     | 722  |
| PRODUCTION OF ENERGY :                |       |      |      |      |      |       |      |      |       |       |       |       |       |      |
| THERMAL ENERGY                        | GWH   | 392  | 474  | 487  | 389  | 455   | 404  | 139  | 0     | 0     | 0     | 0     | 0     | 2740 |
| ELECTRICAL GENERATED                  | GWH   | 124  | 166  | 156  | 124  | 151   | 121  | 43   | 0     | 0     | 0     | 0     | 0     | 885  |
| ELECTRICAL NET                        | GWH   | 98   | 136  | 124  | 104  | 132   | 99   | 33   | 0     | 0     | -7    | -7    | -7    | 703  |
| MAX. ELECTRICAL POWER NET MW          |       |      |      |      |      |       |      |      |       |       |       |       |       |      |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 485  | 605  | 692  | 586  | 672   | 774  | 246  | 0     | 0     | 0     | 0     | 0     | 4060 |
| FACTOR OF :                           |       |      |      |      |      |       |      |      |       |       |       |       |       |      |
| TIME UTILISATION                      | %     | 72.2 | 90.0 | 82.5 | 87.2 | 100.0 | 92.1 | 36.6 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 46.5 |
| ENERGY AVAILABILITY                   | %     | 40.5 | 56.2 | 43.9 | 39.4 | 54.4  | 32.7 | 13.8 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 23.1 |
| ENERGY UNAVAILABILITY                 | %     | 59.5 | 43.8 | 56.1 | 60.6 | 45.6  | 67.3 | 86.2 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 76.9 |
| OF WHICH: PLANNED                     | %     | 59.5 | 22.4 | 56.1 | 60.6 | 45.6  | 67.3 | 86.2 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 75.3 |
| UNPLANNED                             | %     | 0.0  | 21.4 | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1.6  |
| LOAD FACTOR                           | %     | 40.5 | 56.2 | 41.1 | 43.0 | 54.5  | 32.7 | 13.8 | 0.0   | 0.0   | -     | -     | -     | 22.3 |
| NET THERMAL EFFICIENCY                | %     | 25.0 | 28.7 | 25.5 | 26.7 | 28.9  | 24.5 | 24.1 | -     | -     | -     | -     | -     | 25.6 |

STATION : HARTLEPOOL A1

UNITED KINGDOM

## GENERAL DATA

TYPE OF REACTOR AGR  
 FIRST CRITICALITY 00.06.1983  
 FIRST CONNECTION TO GRID 01.08.1983  
 FIRST COMMERCIAL OPERATION 00.00.0000

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 1500 MW  
 INSTALLED CAPACITY 560 MW  
 MAXIMUM OUTPUT CAPACITY 510 MW

## ANNUAL OPERATING DATA

|  |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED<br>AT<br>31.12.90 |
|--|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
|  |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                      | GWH   | 12                          | 1580 | 1865 | 5297 | 1113 | 2775 | 5024 | 4498 | 22164                       |
| ELECTRICAL GENERATED                         | GWH   | 3                           | 635  | 703  | 2116 | 447  | 1098 | 2102 | 1880 | 6984                        |
| ELECTRICAL NET                               | GWH   | -40                         | 386  | 560  | 1690 | 372  | 920  | 1829 | 1699 | 7415                        |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS | 0                           | 1627 | 1950 | 4834 | 1242 | 3101 | 4683 | 3486 | 20923                       |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS | 0                           | 865  | 900  | 2708 | 757  | 1476 | 2927 | 3486 | 13118                       |
| FACTOR OF :                                  |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                          | %     | 0                           | 10   | 18   | 35   | 23   | 38   | 75   | 40   | 32                          |
| LOAD FACTOR                                  | %     | -                           | 10   | 10   | 31   | 9    | 17   | 34   | 40   | 20                          |

## MONTHLY OPERATING DATA DURING 1990

|  |       | JAN   | FEB  | MAR  | APR   | MAY   | JUN   | JUL  | AUG   | SEP  | OCT   | NOV   | DEC  | YEAR |
|--|-------|-------|------|------|-------|-------|-------|------|-------|------|-------|-------|------|------|
| AVAILABLE ENERGY                         | GWH   | 0     | 42   | 9    | 0     | 0     | 0     | 158  | 342   | 406  | 336   | 329   | 81   | 1703 |
| PRODUCTION OF ENERGY :                   |       |       |      |      |       |       |       |      |       |      |       |       |      |      |
| THERMAL ENERGY                           | GWH   | 0     | 113  | 0    | 0     | 0     | 0     | 427  | 910   | 1076 | 882   | 867   | 223  | 4498 |
| ELECTRICAL GENERATED                     | GWH   | 0     | 48   | 0    | 0     | 0     | 0     | 177  | 379   | 450  | 369   | 364   | 95   | 1880 |
| ELECTRICAL NET                           | GWH   | 0     | 43   | 0    | 0     | 0     | 0     | 158  | 342   | 407  | 336   | 329   | 82   | 1699 |
| MAX. ELECTRICAL POWER NET                | MW    |       |      |      |       |       |       |      |       |      |       |       |      |      |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 0     | 133  | 0    | 0     | 0     | 0     | 348  | 672   | 809  | 673   | 672   | 179  | 3486 |
| FACTOR OF :                              |       |       |      |      |       |       |       |      |       |      |       |       |      |      |
| TIME UTILISATION                         | %     | 0.0   | 19.8 | 0.0  | 0.0   | 0.0   | 0.0   | 51.8 | 100.0 | 96.3 | 100.0 | 100.0 | 21.3 | 39.9 |
| ENERGY AVAILABILITY                      | %     | 0.0   | 15.3 | 2.9  | 0.0   | 0.0   | 0.0   | 46.2 | 99.9  | 95.1 | 98.0  | 96.0  | 19.2 | 40.2 |
| ENERGY UNAVAILABILITY                    | %     | 100.0 | 84.7 | 97.1 | 100.0 | 100.0 | 100.0 | 53.8 | 0.1   | 4.9  | 2.0   | 4.0   | 80.8 | 59.8 |
| OF WHICH: PLANNED                        | %     | 0.0   | 52.6 | 97.1 | 100.0 | 100.0 | 100.0 | 53.8 | 0.1   | 0.6  | 0.0   | 4.0   | 80.8 | 50.5 |
| UNPLANNED                                | %     | 100.0 | 32.1 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 4.3  | 2.0   | 0.0   | 0.0  | 9.3  |
| LOAD FACTOR                              | %     | 0.0   | 15.3 | 0.0  | 0.0   | 0.0   | 0.0   | 46.2 | 99.9  | 95.1 | 98.0  | 96.0  | 19.2 | 39.9 |
| NET THERMAL EFFICIENCY                   | %     | -     | 38.1 | -    | -     | -     | -     | 37.1 | 37.6  | 37.9 | 38.2  | 37.0  | 36.8 | 37.8 |

STATION : HARTLEPOOL A2

UNITED KINGDOM

## GENERAL DATA

TYPE OF REACTOR AGR  
 FIRST CRITICALITY 00.09.1984  
 FIRST CONNECTION TO GRID 31.10.1984  
 FIRST COMMERCIAL OPERATION 00.00.0000

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 1500 MW  
 INSTALLED CAPACITY 560 MW  
 MAXIMUM OUTPUT CAPACITY 510 MW

## ANNUAL OPERATING DATA

|  |       | CUMULATED      |      |      |      |      |      |      | CUMULATED<br>AT<br>31.12.90 |
|--|-------|----------------|------|------|------|------|------|------|-----------------------------|
|  |       | AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |                             |
| PRODUCTION OF ENERGY :                       |       |                |      |      |      |      |      |      |                             |
| THERMAL                                      | GWH   | 1330           | 2501 | 2822 | 4959 | 2948 | 6045 | 8576 | 27181                       |
| ELECTRICAL GENERATED                         | GWH   | 506            | 953  | 1093 | 1967 | 1182 | 2462 | 3586 | 11750                       |
| ELECTRICAL NET                               | GWH   | 408            | 724  | 764  | 1681 | 1007 | 2235 | 3238 | 19057                       |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS | 1500           | 2145 | 2677 | 4986 | 2969 | 4689 | 6796 | 25762                       |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS | 1118           | 1162 | 1223 | 3873 | 1607 | 3573 | 6639 | 19196                       |
| FACTOR OF :                                  |       |                |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                          | %     | 70             | 14   | 27   | 57   | 30   | 71   | 74   | 46                          |
| LOAD FACTOR                                  | %     | 70             | 13   | 14   | 44   | 18   | 41   | 76   | 35                          |

## MONTHLY OPERATING DATA DURING 1990

|  |       | JAN   | FEB   | MAR  | APR  | MAY   | JUN   | JUL   | AUG  | SEP  | OCT  | NOV   | DEC  | YEAR |
|--|-------|-------|-------|------|------|-------|-------|-------|------|------|------|-------|------|------|
| AVAILABLE ENERGY                         | GWH   | 282   | 282   | 300  | 44   | 343   | 425   | 334   | 66   | 271  | 318  | 330   | 158  | 3153 |
| PRODUCTION OF ENERGY :                   |       |       |       |      |      |       |       |       |      |      |      |       |      |      |
| THERMAL ENERGY                           | GWH   | 893   | 832   | 771  | 193  | 835   | 1128  | 900   | 177  | 718  | 833  | 865   | 431  | 8576 |
| ELECTRICAL GENERATED                     | GWH   | 379   | 350   | 324  | 71   | 350   | 470   | 373   | 74   | 300  | 349  | 363   | 182  | 3586 |
| ELECTRICAL NET                           | GWH   | 346   | 324   | 290  | 57   | 317   | 426   | 334   | 67   | 272  | 318  | 330   | 158  | 3238 |
| MAX. ELECTRICAL POWER NET                | MW    |       |       |      |      |       |       |       |      |      |      |       |      |      |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 672   | 632   | 794  | 147  | 636   | 840   | 672   | 168  | 560  | 648  | 672   | 355  | 6796 |
| FACTOR OF :                              |       |       |       |      |      |       |       |       |      |      |      |       |      |      |
| TIME UTILISATION                         | %     | 100.0 | 94.0  | 94.6 | 21.9 | 94.6  | 100.0 | 100.0 | 25.0 | 66.7 | 96.3 | 100.0 | 42.3 | 77.8 |
| ENERGY AVAILABILITY                      | %     | 100.0 | 100.0 | 85.3 | 12.9 | 100.0 | 99.4  | 97.5  | 19.4 | 63.5 | 92.9 | 96.4  | 37.0 | 74.1 |
| ENERGY UNAVAILABILITY                    | %     | 0.0   | 0.0   | 14.7 | 87.1 | 0.0   | 0.6   | 2.5   | 80.6 | 36.5 | 7.1  | 3.6   | 63.0 | 25.9 |
| OF WHICH: PLANNED                        | %     | 0.0   | 0.0   | 14.7 | 87.1 | 0.0   | 0.6   | 2.5   | 78.6 | 25.7 | 0.0  | 3.6   | 57.7 | 23.5 |
| UNPLANNED                                | %     | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 2.0  | 10.8 | 7.1  | 0.0   | 5.3  | 2.4  |
| LOAD FACTOR                              | %     | 122.5 | 114.7 | 82.4 | 16.5 | 92.6  | 99.4  | 97.5  | 19.4 | 63.4 | 92.6 | 96.4  | 37.0 | 76.0 |
| NET THERMAL EFFICIENCY                   | %     | 38.7  | 38.9  | 37.7 | 29.3 | 38.0  | 37.7  | 37.1  | 37.6 | 37.9 | 38.2 | 38.2  | 36.8 | 37.8 |

STATION : HEYSHAMI UNIT A

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |         |
|----------------------------|------------|-----------------------------|---------|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1500 MW |
| FIRST CRITICALITY          | 06.04.1983 | INSTALLED CAPACITY          | 560 MW  |
| FIRST CONNECTION TO GRID   | 09.07.1983 | MAXIMUM OUTPUT CAPACITY     | 510 MW  |
| FIRST COMMERCIAL OPERATION | 00.00.0000 |                             |         |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                   | GWH   | 98                          | 4085 | 1177 | 6328 | 5193 | 4522 | 8300 | 4866 | 34519                       |
| ELECTRICAL GENERATED                      | GWH   | 17                          | 1572 | 465  | 2456 | 2105 | 1837 | 3393 | 1970 | 13815                       |
| ELECTRICAL NET                            | GWH   | -22                         | 1183 | 394  | 2118 | 1864 | 1646 | 3045 | 1767 | 11995                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 30                          | 3200 | 1959 | 5731 | 6010 | 3456 | 7113 | 4096 | 31595                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 0                           | 1904 | 638  | 3407 | 3001 | 2647 | 4901 | 3625 | 20123                       |
| FACTOR OF :                               |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                       | %     | 0                           | 22   | 7    | 43   | 36   | 53   | 90   | 43   | 39                          |
| LOAD FACTOR                               | %     | -                           | 22   | 7    | 39   | 34   | 30   | 56   | 42   | 31                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB  | MAR  | APR   | MAY  | JUN   | JUL   | AUG   | SEP   | OCT   | NOV  | DEC  | YEAR |
|---------------------------------------|-------|-------|------|------|-------|------|-------|-------|-------|-------|-------|------|------|------|
| AVAILABLE ENERGY                      | GWH   | 0     | 179  | 292  | 327   | 342  | 0     | 0     | 0     | 0     | 0     | 289  | 416  | 1845 |
| PRODUCTION OF ENERGY :                |       |       |      |      |       |      |       |       |       |       |       |      |      |      |
| THERMAL ENERGY                        | GWH   | 0     | 498  | 821  | 904   | 766  | 0     | 0     | 0     | 0     | 0     | 779  | 1098 | 4866 |
| ELECTRICAL GENERATED                  | GWH   | 0     | 201  | 318  | 371   | 309  | 0     | 0     | 0     | 0     | 0     | 317  | 455  | 1970 |
| ELECTRICAL NET                        | GWH   | 0     | 180  | 282  | 339   | 282  | 0     | -0    | 0     | 0     | -18   | 287  | 417  | 1767 |
| MAX. ELECTRICAL POWER NET             |       |       |      |      |       |      |       |       |       |       |       |      |      |      |
|                                       | MW    |       |      |      |       |      |       |       |       |       |       |      |      |      |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |      |      |       |      |       |       |       |       |       |      |      |      |
|                                       | HOURS | 0     | 509  | 814  | 672   | 648  | 0     | 0     | 0     | 0     | 0     | 638  | 815  | 4096 |
| FACTOR OF :                           |       |       |      |      |       |      |       |       |       |       |       |      |      |      |
| TIME UTILISATION                      | %     | 0.0   | 75.7 | 97.0 | 100.0 | 96.4 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 94.9 | 97.0 | 46.9 |
| ENERGY AVAILABILITY                   | %     | 0.0   | 63.6 | 83.0 | 95.3  | 99.9 | 0.0   | -0.2  | 0.0   | 0.0   | 0.0   | 84.5 | 97.4 | 43.4 |
| ENERGY UNAVAILABILITY                 | %     | 100.0 | 36.4 | 17.0 | 4.7   | 0.1  | 100.0 | 100.2 | 100.0 | 100.0 | 100.0 | 15.5 | 2.6  | 56.6 |
| OF WHICH: PLANNED                     | %     | 100.0 | 36.4 | 11.3 | 0.0   | 0.1  | 100.0 | 100.2 | 100.0 | 100.0 | 100.0 | 8.4  | 0.0  | 54.9 |
| UNPLANNED                             | %     | 0.0   | 0.0  | 5.7  | 4.7   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 7.1  | 2.6  | 1.7  |
| LOAD FACTOR                           | %     | 0.0   | 63.6 | 80.1 | 98.9  | 82.3 | 0.0   | -     | 0.0   | 0.0   | -     | 83.6 | 97.4 | 41.5 |
| NET THERMAL EFFICIENCY                | %     | -     | 36.1 | 34.4 | 37.5  | 36.8 | -     | -     | -     | -     | -     | 36.8 | 38.0 | 36.3 |

STATION : HEYSNAM 1 UNIT B

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |         |
|----------------------------|------------|-----------------------------|---------|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1500 MW |
| FIRST CRITICALITY          | 00.06.1984 | INSTALLED CAPACITY          | 560 MW  |
| FIRST CONNECTION TO GRID   | 11.10.1984 | MAXIMUM OUTPUT CAPACITY     | 510 MW  |
| FIRST COMMERCIAL OPERATION | 00.00.0000 |                             |         |

ANNUAL OPERATING DATA

CUMULATED  
AT  
31.12.83

CUMULATED  
AT  
31.12.90

PRODUCTION OF ENERGY :

|                      |     | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |       |
|----------------------|-----|------|------|------|------|------|------|------|-------|
| THERMAL              | GWH | 902  | 5856 | 804  | 5901 | 5893 | 6758 | 8345 | 34159 |
| ELECTRICAL GENERATED | GWH | 358  | 2294 | 319  | 2418 | 2390 | 2760 | 3376 | 13914 |
| ELECTRICAL NET       | GWH | 294  | 1927 | 262  | 2134 | 2118 | 2506 | 3044 | 12285 |

UTILISATION PERIOD  
OF TURBOGENERATORS

HOURS

1006 5869 900 5189 4813 5507 6690 29974

EQUIVALENT UTILISATION  
AT OUTPUT CAPACITY

HOURS

472 3101 419 3428 3407 4027 6246 21101

FACTOR OF :

|                     |   |    |    |   |    |    |    |    |    |
|---------------------|---|----|----|---|----|----|----|----|----|
| ENERGY AVAILABILITY | X | 23 | 42 | 6 | 40 | 61 | 71 | 72 | 48 |
| LOAD FACTOR         | X | 23 | 36 | 5 | 39 | 39 | 46 | 72 | 39 |

MONTHLY OPERATING DATA DURING 1990

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC YEAR

|                  |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| AVAILABLE ENERGY | GWH | 282 | 259 | 109 | 290 | 327 | 216 | 125 | 316 | 423 | 284 | 164 | 264 | 3059 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|

PRODUCTION OF ENERGY :

|                      |     |     |     |     |     |     |     |     |     |      |     |     |     |      |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|------|
| THERMAL ENERGY       | GWH | 783 | 722 | 291 | 723 | 877 | 599 | 384 | 856 | 1133 | 797 | 457 | 723 | 8345 |
| ELECTRICAL GENERATED | GWH | 319 | 291 | 113 | 302 | 359 | 244 | 147 | 348 | 462  | 313 | 185 | 293 | 3376 |
| ELECTRICAL NET       | GWH | 287 | 260 | 100 | 274 | 328 | 217 | 126 | 316 | 424  | 284 | 165 | 265 | 3044 |

MAX. ELECTRICAL POWER NET MW

UTILISATION PERIOD  
OF TURBOGENERATORS

HOURS

672 672 336 547 642 456 310 643 840 585 359 628 6690

FACTOR OF :

|                        |   |       |       |      |      |      |      |      |      |       |      |      |      |      |
|------------------------|---|-------|-------|------|------|------|------|------|------|-------|------|------|------|------|
| TIME UTILISATION       | X | 100.0 | 100.0 | 40.0 | 81.4 | 95.5 | 54.3 | 46.1 | 95.7 | 100.0 | 86.9 | 53.4 | 74.8 | 76.6 |
| ENERGY AVAILABILITY    | X | 100.0 | 92.2  | 31.3 | 84.6 | 95.6 | 50.6 | 36.7 | 92.2 | 98.9  | 82.8 | 43.0 | 61.8 | 72.0 |
| ENERGY UNAVAILABILITY  | X | 0.0   | 7.8   | 68.7 | 15.4 | 4.4  | 49.4 | 63.3 | 7.8  | 1.1   | 17.2 | 52.0 | 38.2 | 28.0 |
| OF WHICH: PLANNED      | X | 0.0   | 7.8   | 68.7 | 15.4 | 0.0  | 48.0 | 50.0 | 0.0  | 1.1   | 0.0  | 52.0 | 0.0  | 20.6 |
| UNPLANNED              | X | 0.0   | 0.0   | 0.0  | 0.0  | 4.4  | 1.4  | 13.3 | 7.8  | 0.0   | 17.2 | 0.0  | 38.2 | 7.4  |
| LOAD FACTOR            | X | 101.8 | 92.2  | 28.4 | 79.8 | 95.6 | 50.6 | 36.7 | 92.2 | 98.9  | 82.8 | 43.0 | 61.8 | 71.5 |
| NET THERMAL EFFICIENCY | X | 36.7  | 36.0  | 34.4 | 37.8 | 37.3 | 36.1 | 32.7 | 36.9 | 37.4  | 35.7 | 36.0 | 36.7 | 36.5 |

STATION : HEYSHAM 2 UNIT A

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |         |
|----------------------------|------------|-----------------------------|---------|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1550 MW |
| FIRST CRITICALITY          | 23.06.1988 | INSTALLED CAPACITY          | 660 MW  |
| FIRST CONNECTION TO GRID   | 12.07.1988 | MAXIMUM OUTPUT CAPACITY     | 615 MW  |
| FIRST COMMERCIAL OPERATION | 00.00.0000 |                             |         |

| ANNUAL OPERATING DATA                     |       | CUMULATED AT 31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED AT 31.12.90 |
|---|-------|-----------------------|------|------|------|------|------|------|------|-----------------------|
| PRODUCTION OF ENERGY :                    |       |                       |      |      |      |      |      |      |      |                       |
| THERMAL                                   | GWH   |                       |      |      |      |      | 4373 | 5732 | 4151 | 14256                 |
| ELECTRICAL GENERATED                      | GWH   |                       |      |      |      |      | 1886 | 2422 | 1670 | 5977                  |
| ELECTRICAL NET                            | GWH   |                       |      |      |      |      | 1654 | 2204 | 1467 | 5326                  |
| UTILISATION PERIOD OF TURBOGENERATORS     | HOURS |                       |      |      |      |      | 3395 | 4454 | 3509 | 11358                 |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY | HOURS |                       |      |      |      |      | 2687 | 3584 | 2385 | 8656                  |
| FACTOR OF :                               |       |                       |      |      |      |      |      |      |      |                       |
| ENERGY AVAILABILITY                       | X     |                       |      |      |      |      | 100  | 63   | 28   | 56                    |
| LOAD FACTOR                               | X     |                       |      |      |      |      | 62   | 41   | 27   | 40                    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB   | MAR  | APR   | MAY  | JUN   | JUL   | AUG   | SEP   | OCT   | NOV  | DEC   | YEAR |
|---------------------------------------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 202  | 0     | 145  | 226   | 191  | 0     | 0     | 0     | 0     | 0     | 280  | 442   | 1486 |
| PRODUCTION OF ENERGY :                |       |      |       |      |       |      |       |       |       |       |       |      |       |      |
| THERMAL ENERGY                        | GWH   | 578  | 0     | 419  | 685   | 500  | 0     | 0     | 0     | 0     | 0     | 776  | 1192  | 4151 |
| ELECTRICAL GENERATED                  | GWH   | 226  | 0     | 165  | 279   | 190  | 0     | 0     | 0     | 0     | 0     | 319  | 491   | 1670 |
| ELECTRICAL NET                        | GWH   | 230  | 0     | 131  | 242   | 161  | -5    | -5    | -7    | 0     | 0     | 281  | 442   | 1467 |
| MAX. ELECTRICAL POWER NET             | MW    |      |       |      |       |      |       |       |       |       |       |      |       |      |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 554  | 0     | 444  | 696   | 422  | 0     | 0     | 0     | 0     | 0     | 553  | 840   | 3509 |
| FACTOR OF :                           |       |      |       |      |       |      |       |       |       |       |       |      |       |      |
| TIME UTILISATION                      | X     | 82.4 | 0.0   | 52.9 | 103.6 | 62.8 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 82.3 | 100.0 | 40.2 |
| ENERGY AVAILABILITY                   | X     | 49.1 | 0.0   | 28.3 | 55.0  | 46.4 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 67.9 | 85.5  | 27.8 |
| ENERGY UNAVAILABILITY                 | X     | 50.9 | 100.0 | 71.7 | 45.0  | 53.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 32.1 | 14.5  | 72.2 |
| OF WHICH: PLANNED                     | X     | 50.9 | 100.0 | 71.7 | 45.0  | 53.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 27.6 | 14.5  | 71.9 |
| UNPLANNED                             | X     | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 4.5  | 0.0   | 0.3  |
| LOAD FACTOR                           | X     | 55.7 | 0.0   | 25.4 | 58.5  | 39.0 | -     | -     | -     | 0.0   | 0.0   | 60.0 | 25.5  | 27.3 |
| NET THERMAL EFFICIENCY                | X     | 39.8 | -     | 31.3 | 35.3  | 32.2 | -     | -     | -     | -     | -     | 36.2 | 37.1  | 35.4 |

STATION : HEYSHAM 2 UNIT B

UNITED KINGDOM

GENERAL DATA

TYPE OF REACTOR AGR  
 FIRST CRITICALITY 01.11.1988  
 FIRST CONNECTION TO GRID 11.11.1988  
 FIRST COMMERCIAL OPERATION 00.00.0000

SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 1550 MW  
 INSTALLED CAPACITY 660 MW  
 MAXIMUM OUTPUT CAPACITY 615 MW

ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989  | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|------|-------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |      |       |      |                             |
| THERMAL                                   | GWH   |                             |      |      |      |      | 1066 | 10154 | 2223 | 13443                       |
| ELECTRICAL GENERATED                      | GWH   |                             |      |      |      |      | 452  | 4226  | 893  | 5571                        |
| ELECTRICAL NET                            | GWH   |                             |      |      |      |      | 408  | 3826  | 764  | 4998                        |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |      |       |      |                             |
|   | HOURS |                             |      |      |      |      | 956  | 6989  | 1901 | 7846                        |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |      |       |      |                             |
|   | HOURS |                             |      |      |      |      | 662  | 6220  | 1241 | 7123                        |
| FACTOR OF :                               |       |                             |      |      |      |      |      |       |      |                             |
| ENERGY AVAILABILITY                       | %     |                             |      |      |      |      | 100  | 75    | 15   | 49                          |
| LOAD FACTOR                               | %     |                             |      |      |      |      | 44   | 71    | 14   | 43                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN  | FEB  | MAR  | APR   | MAY   | JUN   | JUL   | AUG  | SEP   | OCT  | NOV   | DEC   | YEAR |
|---------------------------------------|-------|------|------|------|-------|-------|-------|-------|------|-------|------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 54   | 151  | 14   | 0     | 0     | 0     | 0     | 2    | 446   | 131  | 0     | 0     | 798  |
| PRODUCTION OF ENERGY :                |       |      |      |      |       |       |       |       |      |       |      |       |       |      |
| THERMAL ENERGY                        | GWH   | 160  | 463  | 0    | 0     | 0     | 0     | 0     | 35   | 1189  | 376  | 0     | 0     | 2223 |
| ELECTRICAL GENERATED                  | GWH   | 63   | 179  | 0    | 0     | 0     | 0     | 0     | 3    | 496   | 152  | 0     | 0     | 893  |
| ELECTRICAL NET                        | GWH   | 55   | 152  | 0    | 0     | 0     | -5    | -5    | -7   | 446   | 131  | 0     | 0     | 764  |
| MAX. ELECTRICAL POWER NET             | MW    |      |      |      |       |       |       |       |      |       |      |       |       |      |
| UTILISATION PERIOD OF TURBOGENERATORS |       |      |      |      |       |       |       |       |      |       |      |       |       |      |
|                                       | HOURS | 199  | 539  | 0    | 0     | 0     | 0     | 0     | 36   | 840   | 287  | 0     | 0     | 1901 |
| FACTOR OF :                           |       |      |      |      |       |       |       |       |      |       |      |       |       |      |
| TIME UTILISATION                      | %     | 29.6 | 80.2 | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 5.4  | 100.0 | 42.6 | 0.0   | 0.0   | 21.8 |
| ENERGY AVAILABILITY                   | %     | 13.3 | 36.8 | 2.9  | 0.0   | 0.0   | 0.0   | 0.0   | 0.8  | 86.3  | 31.7 | 0.0   | 0.0   | 14.9 |
| ENERGY UNAVAILABILITY                 | %     | 86.7 | 63.2 | 97.1 | 100.0 | 100.0 | 100.0 | 100.0 | 99.2 | 13.7  | 68.3 | 100.0 | 100.0 | 85.1 |
| OF WHICH: PLANNED                     | %     | 86.7 | 63.2 | 97.1 | 100.0 | 100.0 | 100.0 | 100.0 | 99.2 | 13.7  | 68.3 | 100.0 | 100.0 | 85.1 |
| UNPLANNED                             | %     | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0   | 0.0   | 0.0  |
| LOAD FACTOR                           | %     | 13.3 | 36.8 | 0.0  | 0.0   | 0.0   | -     | -     | -    | 86.3  | 31.7 | 0.0   | 0.0   | 14.2 |
| NET THERMAL EFFICIENCY                | %     | 34.2 | 32.9 | -    | -     | -     | -     | -     | -    | 37.5  | 34.9 | -     | -     | 34.4 |

STATION : TORNESS 1

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1623 | MW |
| FIRST CRITICALITY          | 25.03.1988 | INSTALLED CAPACITY          | 682  | MW |
| FIRST CONNECTION TO GRID   | 25.05.1988 | MAXIMUM OUTPUT CAPACITY     | 625  | MW |
| FIRST COMMERCIAL OPERATION | 00.00.0000 |                             |      |    |

ANNUAL OPERATING DATA

CUMULATED  
AT  
31.12.83

CUMULATED  
AT  
31.12.90

PRODUCTION OF ENERGY :

|                      |     | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |       |
|----------------------|-----|------|------|------|------|------|------|------|-------|
| THERMAL              | GWH |      |      |      |      | 6019 | 5735 | 5171 | 16925 |
| ELECTRICAL GENERATED | GWH |      |      |      |      | 2505 | 2381 | 2143 | 7029  |
| ELECTRICAL NET       | GWH |      |      |      |      | 2285 | 2136 | 1919 | 6340  |

UTILISATION PERIOD  
OF TURBOGENERATORS

HOURS

4330 4582 3943 12855

EQUIVALENT UTILISATION  
AT OUTPUT CAPACITY

HOURS

3657 3416 3075 10148

FACTOR OF :

|                     |   |  |  |  |  |    |    |    |    |
|---------------------|---|--|--|--|--|----|----|----|----|
| ENERGY AVAILABILITY | X |  |  |  |  | 68 | 39 | 36 | 45 |
| LOAD FACTOR         | X |  |  |  |  | 69 | 39 | 35 | 45 |

MONTHLY OPERATING DATA DURING 1990

|  |       | JAN  | FEB  | MAR   | APR  | MAY   | JUN  | JUL  | AUG  | SEP  | OCT  | NOV   | DEC   | YEAR |
|--|-------|------|------|-------|------|-------|------|------|------|------|------|-------|-------|------|
| AVAILABLE ENERGY                         | GWH   | 99   | 157  | 0     | 89   | 326   | 263  | 355  | 386  | 269  | 1    | 0     | 0     | 1945 |
| PRODUCTION OF ENERGY :                   |       |      |      |       |      |       |      |      |      |      |      |       |       |      |
| THERMAL ENERGY                           | GWH   | 303  | 448  | 0     | 220  | 868   | 687  | 921  | 1003 | 722  | 0    | 0     | 0     | 5171 |
| ELECTRICAL GENERATED                     | GWH   | 117  | 177  | 0     | 102  | 356   | 286  | 386  | 421  | 297  | 0    | 0     | 0     | 2143 |
| ELECTRICAL NET                           | GWH   | 100  | 157  | -4    | 85   | 326   | 260  | 354  | 387  | 269  | -3   | -4    | -4    | 1919 |
| MAX. ELECTRICAL POWER NET                | MW    | 356  | 358  |       | 474  | 544   | 597  | 623  | 623  | 611  |      |       |       | 623  |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 327  | 462  | 0     | 258  | 672   | 454  | 626  | 640  | 504  | 0    | 0     | 0     | 3943 |
| FACTOR OF :                              |       |      |      |       |      |       |      |      |      |      |      |       |       |      |
| TIME UTILISATION                         | X     | 48.7 | 68.8 | 0.0   | 38.4 | 100.0 | 54.0 | 93.2 | 95.2 | 60.0 | 0.0  | 0.0   | 0.0   | 45.1 |
| ENERGY AVAILABILITY                      | X     | 23.8 | 37.4 | 0.0   | 21.2 | 77.6  | 50.1 | 84.6 | 92.1 | 51.3 | 0.1  | -0.1  | 0.0   | 35.7 |
| ENERGY UNAVAILABILITY                    | X     | 76.2 | 62.6 | 100.0 | 78.8 | 22.4  | 49.9 | 15.4 | 7.9  | 48.7 | 99.9 | 100.1 | 100.0 | 64.3 |
| OF WHICH: PLANNED                        | X     | 76.2 | 62.6 | 100.0 | 60.6 | 0.0   | 45.7 | 14.4 | 0.0  | 48.7 | 99.9 | 100.1 | 100.0 | 60.1 |
| UNPLANNED                                | X     | 0.0  | 0.0  | 0.0   | 18.2 | 22.4  | 4.2  | 1.0  | 7.9  | 0.0  | 0.0  | 0.0   | 0.0   | 4.2  |
| LOAD FACTOR                              | X     | 23.8 | 37.4 | -     | 20.3 | 77.6  | 49.5 | 84.3 | 92.1 | 51.3 | -    | -     | -     | 35.2 |
| NET THERMAL EFFICIENCY                   | X     | 32.9 | 35.1 | -     | 38.7 | 37.6  | 37.8 | 38.5 | 38.6 | 37.3 | -    | -     | -     | 37.1 |



STATION : TORNESS 2

UNITED KINGDOM

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | AGR        | THERMAL CAPACITY OF REACTOR | 1623 | MW |
| FIRST CRITICALITY          | 23.12.1988 | INSTALLED CAPACITY          | 682  | MW |
| FIRST CONNECTION TO GRID   | 03.02.1989 | MAXIMUM OUTPUT CAPACITY     | 625  | MW |
| FIRST COMMERCIAL OPERATION | 00.00.0000 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED |      |      |      |      |      |      |      | CUMULATED |
|---|-------|-----------|------|------|------|------|------|------|------|-----------|
|   |       | AT        | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | AT        |
|   |       | 31.12.83  |      |      |      |      |      |      |      | 31.12.90  |
| PRODUCTION OF ENERGY :                    |       |           |      |      |      |      |      |      |      |           |
| THERMAL                                   | GWH   |           |      |      |      |      |      | 9492 | 5269 | 14761     |
| ELECTRICAL GENERATED                      | GWH   |           |      |      |      |      |      | 3968 | 2149 | 6117      |
| ELECTRICAL NET                            | GWH   |           |      |      |      |      |      | 3634 | 1934 | 5567      |
| UTILISATION PERIOD OF TURBOGENERATORS     | HOURS |           |      |      |      |      |      | 7068 | 4211 | 11279     |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY | HOURS |           |      |      |      |      |      | 5816 | 3093 | 8908      |
| FACTOR OF :                               |       |           |      |      |      |      |      |      |      |           |
| ENERGY AVAILABILITY                       | %     |           |      |      |      |      |      | 74   | 36   | 54        |
| LOAD FACTOR                               | %     |           |      |      |      |      |      | 73   | 35   | 53        |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR  | APR   | MAY   | JUN   | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | YEAR |
|---------------------------------------|-------|-------|-------|------|-------|-------|-------|------|------|------|------|------|------|------|
| AVAILABLE ENERGY                      | GWH   | 326   | 321   | 201  | -0    | 0     | 0     | 6    | 306  | 88   | 347  | 353  | 39   | 1966 |
| PRODUCTION OF ENERGY :                |       |       |       |      |       |       |       |      |      |      |      |      |      |      |
| THERMAL ENERGY                        | GWH   | 863   | 867   | 538  | 0     | 0     | 0     | 33   | 820  | 255  | 909  | 875  | 109  | 5269 |
| ELECTRICAL GENERATED                  | GWH   | 355   | 350   | 215  | 0     | 0     | 0     | 7    | 335  | 104  | 376  | 363  | 44   | 2149 |
| ELECTRICAL NET                        | GWH   | 327   | 321   | 190  | -3    | -3    | -5    | -0   | 306  | 89   | 346  | 334  | 35   | 1934 |
| MAX. ELECTRICAL POWER NET             | MW    | 492   | 493   | 415  |       |       |       | 374  | 498  | 525  | 530  | 524  |      | 530  |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 672   | 672   | 549  | 0     | 0     | 0     | 26   | 671  | 211  | 672  | 649  | 89   | 4211 |
| FACTOR OF :                           |       |       |       |      |       |       |       |      |      |      |      |      |      |      |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 65.4 | 0.0   | 0.0   | 0.0   | 3.9  | 99.9 | 25.1 | 99.9 | 94.6 | 10.6 | 48.2 |
| ENERGY AVAILABILITY                   | %     | 77.8  | 76.5  | 38.5 | -0.3  | 0.0   | 0.0   | 1.5  | 72.9 | 16.9 | 82.5 | 77.3 | 7.5  | 36.1 |
| ENERGY UNAVAILABILITY                 | %     | 22.2  | 23.5  | 61.5 | 100.3 | 100.0 | 100.0 | 98.5 | 27.1 | 83.1 | 17.5 | 20.7 | 92.5 | 63.9 |
| OF WHICH: PLANNED                     | %     | 22.2  | 23.5  | 57.4 | 100.3 | 100.0 | 100.0 | 98.5 | 0.1  | 82.8 | 17.5 | 20.7 | 92.5 | 61.4 |
| UNPLANNED                             | %     | 0.0   | 0.0   | 4.1  | 0.0   | 0.0   | 0.0   | 0.0  | 27.0 | 0.3  | 0.0  | 0.0  | 0.0  | 2.5  |
| LOAD FACTOR                           | %     | 77.8  | 76.5  | 36.3 | -     | -     | -     | -    | 72.9 | 16.9 | 82.4 | 79.5 | 6.6  | 35.4 |
| NET THERMAL EFFICIENCY                | %     | 37.9  | 37.1  | 35.4 | -     | -     | -     | -    | 37.3 | 34.9 | 38.1 | 36.1 | 31.7 | 36.7 |

STATION : VANDELLOS 1

SPAIN

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | GCR        | THERMAL CAPACITY OF REACTOR | 1670 | MW |
| FIRST CRITICALITY          | 11.02.1972 | INSTALLED CAPACITY          | 500  | MW |
| FIRST CONNECTION TO GRID   | 06.05.1972 | MAXIMUM OUTPUT CAPACITY     | 480  | MW |
| FIRST COMMERCIAL OPERATION | 00.08.1972 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED |       |       |       |       |       |      |      | CUMULATED |
|---|-------|-----------|-------|-------|-------|-------|-------|------|------|-----------|
|   |       | AT        | 1984  | 1985  | 1986  | 1987  | 1988  | 1989 | 1990 | AT        |
|   |       | 31.12.83  |       |       |       |       |       |      |      | 31.12.90  |
| PRODUCTION OF ENERGY :                    |       |           |       |       |       |       |       |      |      |           |
| THERMAL                                   | GWH   | 135930    | 11080 | 11154 | 11382 | 11474 | 11762 | 9399 | 0    | 202180    |
| ELECTRICAL GENERATED                      | GWH   | 37708     | 2992  | 3036  | 3077  | 3137  | 3161  | 2519 | 0    | 55630     |
| ELECTRICAL NET                            | GWH   | 36407     | 2888  | 2928  | 2965  | 3030  | 3058  | 2454 | 0    | 53730     |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |           |       |       |       |       |       |      |      |           |
|   | HOURS | 86577     | 7890  | 7972  | 7998  | 8103  | 8049  | 6349 | 0    | 132938    |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |           |       |       |       |       |       |      |      |           |
|   | HOURS | 75850     | 6017  | 6097  | 6176  | 6316  | 6368  | 5116 | 0    | 111940    |
| FACTOR OF :                               |       |           |       |       |       |       |       |      |      |           |
| ENERGY AVAILABILITY                       | %     | 74        | 69    | 70    | 71    | 72    | 72    | 58   | 0    | 68        |
| LOAD FACTOR                               | %     | 74        | 69    | 70    | 71    | 72    | 73    | 58   | -    | 68        |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELECTRICAL GENERATED                  | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| ELECTRICAL NET                        | GWH   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| MAX. ELECTRICAL POWER NET MW          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| ENERGY AVAILABILITY                   | %     | 0.0   | -0.1  | -0.1  | -0.1  | 0.0   | -0.1  | 0.0   | 0.0   | 0.0   | 0.0   | -0.1  | 0.0   | 0.0   |
| ENERGY UNAVAILABILITY                 | %     | 100.0 | 100.1 | 100.1 | 100.1 | 100.0 | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.1 | 100.0 | 100.0 |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| UNPLANNED                             | %     | 100.0 | 100.1 | 100.1 | 100.1 | 100.0 | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.1 | 100.0 | 100.0 |
| LOAD FACTOR                           | %     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| NET THERMAL EFFICIENCY                | %     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |

STATION : SANTA MARIA DE GARONA

SPAIN

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | BWR        | THERMAL CAPACITY OF REACTOR | 1381 | MW |
| FIRST CRITICALITY          | 16.11.1970 | INSTALLED CAPACITY          | 460  | MW |
| FIRST CONNECTION TO GRID   | 02.03.1971 | MAXIMUM OUTPUT CAPACITY     | 440  | MW |
| FIRST COMMERCIAL OPERATION | 11.05.1971 |                             |      |    |

ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986  | 1987 | 1988 | 1989  | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|-------|------|------|-------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |       |      |      |       |      |                             |
| THERMAL                                   | GWH   | 95745                       | 9252 | 5590 | 11000 | 8206 | 8660 | 11200 | 8257 | 157911                      |
| ELECTRICAL GENERATED                      | GWH   | 31372                       | 3023 | 1818 | 3575  | 2696 | 2833 | 3689  | 2685 | 51692                       |
| ELECTRICAL NET                            | GWH   | 29593                       | 2869 | 1702 | 3414  | 2558 | 2687 | 3516  | 2548 | 48888                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |       |      |      |       |      |                             |
|   | HOURS | 76106                       | 6854 | 4285 | 8174  | 6205 | 6639 | 8324  | 6297 | 122884                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |       |      |      |       |      |                             |
|   | HOURS | 67266                       | 6518 | 3872 | 7761  | 5817 | 6105 | 7989  | 5790 | 111118                      |
| FACTOR OF :                               |       |                             |      |      |       |      |      |       |      |                             |
| ENERGY AVAILABILITY                       | %     | 61                          | 85   | 45   | 92    | 67   | 70   | 91    | 66   | 66                          |
| LOAD FACTOR                               | %     | 60                          | 74   | 44   | 89    | 66   | 70   | 91    | 66   | 64                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR  | MAY   | JUN   | JUL   | AUG  | SEP  | OCT   | NOV   | DEC   | YEAR |
|---------------------------------------|-------|-------|-------|-------|------|-------|-------|-------|------|------|-------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 321   | 277   | 270   | 180  | 0     | 0     | 0     | 257  | 296  | 318   | 310   | 324   | 2553 |
| PRODUCTION OF ENERGY :                |       |       |       |       |      |       |       |       |      |      |       |       |       |      |
| THERMAL ENERGY                        | GWH   | 1023  | 891   | 888   | 593  | 0     | 0     | 3     | 851  | 969  | 1023  | 992   | 1026  | 8257 |
| ELECTRICAL GENERATED                  | GWH   | 337   | 292   | 285   | 191  | 0     | 0     | 0     | 272  | 311  | 333   | 326   | 340   | 2685 |
| ELECTRICAL NET                        | GWH   | 322   | 277   | 270   | 180  | -2    | -3    | -3    | 258  | 297  | 319   | 310   | 325   | 2548 |
| MAX. ELECTRICAL POWER NET             | MW    | 440   | 438   | 389   | 343  |       |       | 46    | 432  | 429  | 436   | 439   | 444   | 444  |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |      |       |       |       |      |      |       |       |       |      |
|                                       | HOURS | 744   | 672   | 743   | 551  | 0     | 0     | 5     | 665  | 709  | 744   | 720   | 744   | 6297 |
| FACTOR OF :                           |       |       |       |       |      |       |       |       |      |      |       |       |       |      |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 100.0 | 76.5 | 0.0   | 0.0   | 0.7   | 89.4 | 98.3 | 100.0 | 100.0 | 100.0 | 71.9 |
| ENERGY AVAILABILITY                   | %     | 98.4  | 93.8  | 82.6  | 57.0 | 0.0   | 0.0   | 0.0   | 78.8 | 93.6 | 97.4  | 97.9  | 99.2  | 66.4 |
| ENERGY UNAVAILABILITY                 | %     | 1.6   | 6.2   | 17.4  | 43.0 | 100.0 | 100.0 | 100.0 | 21.2 | 6.4  | 2.6   | 2.1   | 0.8   | 33.6 |
| OF WHICH: PLANNED                     | %     | 0.2   | 4.5   | 15.6  | 41.9 | 100.0 | 100.0 | 98.2  | 5.3  | 0.1  | 0.4   | 0.1   | 0.1   | 30.7 |
| UNPLANNED                             | %     | 1.4   | 1.7   | 1.8   | 1.1  | 0.0   | 0.0   | 1.8   | 15.9 | 6.3  | 2.2   | 2.0   | 0.7   | 2.9  |
| LOAD FACTOR                           | %     | 98.5  | 93.8  | 82.7  | 57.0 | -     | -     | -     | 78.8 | 93.6 | 97.4  | 97.8  | 99.2  | 66.1 |
| NET THERMAL EFFICIENCY                | %     | 31.5  | 31.2  | 30.4  | 30.4 | -     | -     | -     | 30.3 | 30.6 | 31.2  | 31.2  | 31.7  | 30.9 |

STATION : COFRENTES

SPAIN

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | BWR        | THERMAL CAPACITY OF REACTOR | 2894 | MW |
| FIRST CRITICALITY          | 22.08.1984 | INSTALLED CAPACITY          | 975  | MW |
| FIRST CONNECTION TO GRID   | 14.10.1984 | MAXIMUM OUTPUT CAPACITY     | 939  | MW |
| FIRST COMMERCIAL OPERATION | 11.03.1985 |                             |      |    |

ANNUAL OPERATING DATA

CUMULATED  
AT  
31.12.83

CUMULATED  
AT  
31.12.90

PRODUCTION OF ENERGY :

|                      |     | 1984 | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |        |
|----------------------|-----|------|-------|-------|-------|-------|-------|-------|--------|
| THERMAL              | GWH | 1442 | 19424 | 20891 | 21598 | 22475 | 22120 | 22074 | 130023 |
| ELECTRICAL GENERATED | GWH | 387  | 6398  | 6929  | 7171  | 7418  | 7318  | 7338  | 42959  |
| ELECTRICAL NET       | GWH | 350  | 6142  | 6668  | 6903  | 7143  | 7052  | 7070  | 41329  |

UTILISATION PERIOD  
OF TURBOGENERATORS

HOURS

|      |      |      |      |      |      |      |       |
|------|------|------|------|------|------|------|-------|
| 1190 | 7300 | 7489 | 7615 | 7850 | 7732 | 7560 | 46736 |
|------|------|------|------|------|------|------|-------|

EQUIVALENT UTILISATION  
AT OUTPUT CAPACITY

HOURS

|     |      |      |      |      |      |      |       |
|-----|------|------|------|------|------|------|-------|
| 373 | 6544 | 7104 | 7157 | 7405 | 7507 | 7534 | 43623 |
|-----|------|------|------|------|------|------|-------|

FACTOR OF :

|                     |   |    |    |    |    |    |    |    |    |
|---------------------|---|----|----|----|----|----|----|----|----|
| ENERGY AVAILABILITY | X | 44 | 75 | 80 | 84 | 86 | 84 | 85 | 81 |
| LOAD FACTOR         | X | 20 | 75 | 81 | 82 | 84 | 86 | 86 | 80 |

MONTHLY OPERATING DATA DURING 1990

JAN FEB MAR APR MAY JUH JUL AUG SEP OCT NOV DEC YEAR

|                  |     |     |     |     |     |     |   |     |     |     |     |     |     |      |
|------------------|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|------|
| AVAILABLE ENERGY | GWH | 690 | 596 | 697 | 667 | 566 | 0 | 509 | 563 | 642 | 696 | 674 | 696 | 6996 |
|------------------|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|------|

PRODUCTION OF ENERGY :

|                      |     |      |      |      |      |      |     |      |      |      |      |      |      |       |
|----------------------|-----|------|------|------|------|------|-----|------|------|------|------|------|------|-------|
| THERMAL ENERGY       | GWH | 2165 | 1879 | 2192 | 2118 | 1888 | 0   | 1640 | 1621 | 2056 | 2196 | 2123 | 2196 | 22074 |
| ELECTRICAL GENERATED | GWH | 727  | 630  | 735  | 704  | 601  | 542 | 0    | 533  | 678  | 734  | 714  | 739  | 7338  |
| ELECTRICAL NET       | GWH | 702  | 607  | 710  | 679  | 578  | 0   | 521  | 512  | 653  | 708  | 689  | 713  | 7070  |

MAX. ELECTRICAL POWER NET

MW

|     |     |     |     |     |  |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|-----|-----|-----|
| 965 | 970 | 963 | 960 | 926 |  | 957 | 954 | 956 | 962 | 965 | 964 | 970 |
|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|-----|-----|-----|

UTILISATION PERIOD  
OF TURBOGENERATORS

HOURS

|     |     |     |     |     |   |     |     |     |     |     |     |      |
|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|------|
| 739 | 645 | 743 | 720 | 647 | 0 | 583 | 574 | 701 | 744 | 720 | 744 | 7560 |
|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|------|

FACTOR OF :

|                        |   |       |      |       |       |      |       |      |      |      |       |       |       |      |
|------------------------|---|-------|------|-------|-------|------|-------|------|------|------|-------|-------|-------|------|
| TIME UTILISATION       | X | 99.3  | 96.0 | 100.0 | 100.0 | 87.0 | 0.0   | 78.4 | 77.2 | 97.2 | 100.0 | 100.0 | 100.0 | 86.3 |
| ENERGY AVAILABILITY    | X | 98.8  | 94.6 | 99.9  | 98.8  | 81.1 | 0.0   | 72.9 | 80.6 | 94.9 | 99.7  | 99.8  | 99.7  | 85.1 |
| ENERGY UNAVAILABILITY  | X | 1.2   | 5.4  | 0.1   | 1.2   | 18.9 | 100.0 | 27.1 | 19.4 | 5.1  | 0.3   | 0.2   | 0.3   | 14.9 |
| OF WHICH: PLANNED      | X | 0.0   | 0.0  | 0.1   | 1.2   | 18.9 | 100.0 | 9.3  | 0.8  | 4.5  | 0.3   | 0.2   | 0.3   | 11.2 |
| UNPLANNED              | X | 1.2   | 5.4  | 0.0   | 0.0   | 0.0  | 0.0   | 17.8 | 18.6 | 0.6  | 0.0   | 0.0   | 0.0   | 3.7  |
| LOAD FACTOR            | X | 100.4 | 96.3 | 101.7 | 100.5 | 82.8 | 0.0   | 74.5 | 73.3 | 96.4 | 101.3 | 101.9 | 102.0 | 86.0 |
| NET THERMAL EFFICIENCY | X | 32.4  | 32.3 | 32.4  | 32.1  | 30.6 | -     | 31.7 | 31.6 | 31.7 | 32.2  | 32.4  | 32.5  | 32.0 |

STATION : VANDELLOS 2

SPAIN

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 2775 | MW |
| FIRST CRITICALITY          | 14.11.1987 | INSTALLED CAPACITY          | 982  | MW |
| FIRST CONNECTION TO GRID   | 12.12.1987 | MAXIMUM OUTPUT CAPACITY     | 943  | MW |
| FIRST COMMERCIAL OPERATION | 08.03.1988 |                             |      |    |

ANNUAL OPERATING DATA

|   |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988  | 1989  | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|-------|-------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |       |       |       |                             |
| THERMAL                                   | GWH   |                             |      |      |      | 245  | 15634 | 17173 | 21425 | 54477                       |
| ELECTRICAL GENERATED                      | GWH   |                             |      |      |      | 55   | 5416  | 6131  | 7667  | 19269                       |
| ELECTRICAL NET                            | GWH   |                             |      |      |      | 40   | 5147  | 5869  | 7334  | 18390                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |       |       |       |                             |
|   | HOURS |                             |      |      |      | 318  | 6264  | 6357  | 7925  | 20864                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |       |       |       |                             |
|   | HOURS |                             |      |      |      | 42   | 5455  | 6220  | 7779  | 19496                       |
| FACTOR OF :                               |       |                             |      |      |      |      |       |       |       |                             |
| ENERGY AVAILABILITY                       | %     |                             |      |      |      | 100  | 73    | 71    | 88    | 78                          |
| LOAD FACTOR                               | %     |                             |      |      |      | 9    | 62    | 71    | 89    | 73                          |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR  | MAY  | JUN  | JUL  | AUG   | SEP  | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|-------|-------|------|------|------|------|-------|------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 702   | 634   | 701   | 553  | 31   | 638  | 604  | 694   | 617  | 698   | 679   | 702   | 7253  |
| PRODUCTION OF ENERGY :                |       |       |       |       |      |      |      |      |       |      |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 2060  | 1861  | 2057  | 1617 | 127  | 1890 | 1792 | 2059  | 1848 | 2059  | 1994  | 2061  | 21425 |
| ELECTRICAL GENERATED                  | GWH   | 744   | 673   | 744   | 583  | 38   | 673  | 638  | 732   | 653  | 735   | 714   | 741   | 7667  |
| ELECTRICAL NET                        | GWH   | 715   | 646   | 714   | 557  | 35   | 643  | 609  | 699   | 622  | 703   | 684   | 710   | 7334  |
| MAX. ELECTRICAL POWER NET             | MW    | 965   | 1004  | 963   | 961  | 615  | 953  | 957  | 955   | 947  | 949   | 955   | 958   | 1004  |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |      |      |      |      |       |      |       |       |       |       |
|                                       | HOURS | 744   | 672   | 743   | 648  | 89   | 705  | 658  | 744   | 714  | 744   | 720   | 744   | 7925  |
| FACTOR OF :                           |       |       |       |       |      |      |      |      |       |      |       |       |       |       |
| TIME UTILISATION                      | %     | 100.0 | 100.0 | 100.0 | 90.0 | 12.0 | 97.9 | 88.4 | 100.0 | 99.0 | 100.0 | 100.0 | 100.0 | 90.5  |
| ENERGY AVAILABILITY                   | %     | 100.0 | 100.0 | 100.0 | 81.4 | 4.3  | 94.0 | 86.2 | 99.0  | 90.8 | 99.6  | 100.0 | 100.0 | 87.8  |
| ENERGY UNAVAILABILITY                 | %     | 0.0   | 0.0   | 0.0   | 18.6 | 95.7 | 6.0  | 13.8 | 1.0   | 9.2  | 0.4   | 0.0   | 0.0   | 12.2  |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 18.6 | 94.4 | 0.0  | 0.0  | 0.1   | 0.1  | 0.1   | 0.0   | 0.0   | 9.6   |
| UNPLANNED                             | %     | 0.0   | 0.0   | 0.0   | 0.0  | 1.3  | 6.0  | 13.8 | 0.9   | 9.1  | 0.3   | 0.0   | 0.0   | 2.6   |
| LOAD FACTOR                           | %     | 101.8 | 101.9 | 101.8 | 82.1 | 5.0  | 94.7 | 86.8 | 99.6  | 91.4 | 100.2 | 100.7 | 101.1 | 88.8  |
| NET THERMAL EFFICIENCY                | %     | 34.7  | 34.7  | 34.7  | 34.5 | 27.5 | 34.0 | 34.0 | 33.9  | 33.6 | 34.1  | 34.3  | 34.4  | 34.2  |

STATION : JOSE CABRERA 1 (ZORITA)

SPAIN

## GENERAL DATA

## SELECTED CHARACTERISTICS

|                            |            |                             |     |    |
|----------------------------|------------|-----------------------------|-----|----|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 510 | MW |
| FIRST CRITICALITY.         | 30.06.1968 | INSTALLED CAPACITY          | 160 | MW |
| FIRST CONNECTION TO GRID   | 14.07.1968 | MAXIMUM OUTPUT CAPACITY     | 153 | MW |
| FIRST COMMERCIAL OPERATION | 00.02.1969 |                             |     |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|------|------|------|------|------|------|------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |      |      |      |      |      |      |      |                             |
| THERMAL                                   | GWH   | 45810                       | 3803 | 962  | 3607 | 3746 | 3821 | 3828 | 3269 | 68846                       |
| ELECTRICAL GENERATED                      | GWH   | 14252                       | 1163 | 292  | 1102 | 1153 | 1198 | 1189 | 1005 | 21353                       |
| ELECTRICAL NET                            | GWH   | 13572                       | 1107 | 277  | 1049 | 1096 | 1142 | 1133 | 957  | 20334                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 101953                      | 8379 | 2272 | 7588 | 7834 | 7853 | 8059 | 7281 | 151219                      |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |      |      |      |      |      |      |      |                             |
|   | HOURS | 88690                       | 7238 | 1787 | 6859 | 7166 | 7466 | 7402 | 6255 | 132863                      |
| FACTOR OF :                               |       |                             |      |      |      |      |      |      |      |                             |
| ENERGY AVAILABILITY                       | %     | 76                          | 95   | 21   | 79   | 83   | 85   | 85   | 72   | 75                          |
| LOAD FACTOR                               | %     | 65                          | 82   | 20   | 78   | 82   | 85   | 85   | 71   | 67                          |

## MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP  | OCT   | NOV   | DEC   | YEAR |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|
| AVAILABLE ENERGY                      | GWH   | 114   | 103   | 111   | 99    | 111   | 106   | 97    | 0     | 0    | 5     | 107   | 112   | 965  |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |      |       |       |       |      |
| THERMAL ENERGY                        | GWH   | 368   | 343   | 379   | 343   | 379   | 363   | 333   | 0     | 0    | 18    | 363   | 380   | 3269 |
| ELECTRICAL GENERATED                  | GWH   | 113   | 105   | 116   | 105   | 116   | 111   | 102   | 0     | 0    | 5     | 113   | 117   | 1005 |
| ELECTRICAL NET                        | GWH   | 108   | 101   | 111   | 100   | 111   | 106   | 97    | 0     | 0    | 5     | 108   | 112   | 957  |
| MAX. ELECTRICAL POWER NET             | MW    | 158   | 158   | 157   | 157   | 157   | 157   | 156   |       |      | 84    | 160   | 159   | 160  |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |       |       |       |       |       |      |       |       |       |      |
|                                       | HOURS | 730   | 672   | 743   | 720   | 744   | 720   | 744   | 0     | 0    | 744   | 720   | 744   | 7281 |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |      |       |       |       |      |
| TIME UTILISATION                      | %     | 98.1  | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   | 0.0  | 100.0 | 100.0 | 100.0 | 83.1 |
| ENERGY AVAILABILITY                   | %     | 100.0 | 100.0 | 97.8  | 90.9  | 97.8  | 96.6  | 85.7  | 0.0   | 0.3  | 4.4   | 97.9  | 98.6  | 72.3 |
| ENERGY UNAVAILABILITY                 | %     | 0.0   | 0.0   | 2.2   | 9.1   | 2.2   | 3.4   | 14.3  | 100.0 | 99.7 | 95.6  | 2.1   | 1.4   | 27.7 |
| OF WHICH: PLANNED                     | %     | 0.0   | 0.0   | 0.0   | 6.8   | 0.0   | 0.0   | 8.9   | 100.0 | 99.7 | 95.3  | 1.0   | 0.0   | 26.2 |
| UNPLANNED                             | %     | 0.0   | 0.0   | 2.2   | 2.3   | 2.2   | 3.4   | 5.4   | 0.0   | 0.0  | 0.3   | 1.1   | 1.4   | 1.5  |
| LOAD FACTOR                           | %     | 94.9  | 97.8  | 97.5  | 90.5  | 97.5  | 95.8  | 85.3  | 0.0   | 0.0  | 4.3   | 97.7  | 98.5  | 71.4 |
| NET THERMAL EFFICIENCY                | %     | 29.3  | 29.3  | 29.2  | 29.1  | 29.3  | 29.1  | 29.2  | -     | -    | 27.2  | 29.6  | 29.5  | 29.3 |

STATION : ALMARAZ 1

SPAIN

## GENERAL DATA

TYPE OF REACTOR PWR  
 FIRST CRITICALITY 05.04.1981  
 FIRST CONNECTION TO GRID 01.05.1981  
 FIRST COMMERCIAL OPERATION 00.10.1981

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 2686 MW  
 INSTALLED CAPACITY 930 MW  
 MAXIMUM OUTPUT CAPACITY 895 MW

| ANNUAL OPERATING DATA                     |       | CUMULATED<br>AT<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | CUMULATED<br>AT<br>31.12.90 |
|---|-------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|
| PRODUCTION OF ENERGY :                    |       |                             |       |       |       |       |       |       |       |                             |
| THERMAL                                   | GWH   | 24620                       | 14820 | 14660 | 16750 | 22142 | 17996 | 20083 | 19794 | 150866                      |
| ELECTRICAL GENERATED                      | GWH   | 8368                        | 5037  | 5012  | 5673  | 7525  | 6140  | 6828  | 6716  | 51299                       |
| ELECTRICAL NET                            | GWH   | 7926                        | 4821  | 4825  | 5426  | 7194  | 5880  | 6562  | 6461  | 49094                       |
| UTILISATION PERIOD OF TURBOGENERATORS     |       |                             |       |       |       |       |       |       |       |                             |
|   | HOURS | 11789                       | 6062  | 5705  | 6418  | 8346  | 6899  | 7640  | 7451  | 60310                       |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY |       |                             |       |       |       |       |       |       |       |                             |
|   | HOURS | 8854                        | 5385  | 5387  | 6027  | 8042  | 6570  | 7332  | 7218  | 54815                       |
| FACTOR OF :                               |       |                             |       |       |       |       |       |       |       |                             |
| ENERGY AVAILABILITY                       | x     | 39                          | 61    | 62    | 69    | 92    | 75    | 83    | 82    | 65                          |
| LOAD FACTOR                               | x     | 38                          | 61    | 62    | 69    | 92    | 75    | 84    | 82    | 65                          |

## MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP  | OCT   | NOV  | DEC  | YEAR  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|------|-------|
| AVAILABLE ENERGY                      | GWH   | 658   | 593   | 657   | 636   | 656   | 633   | 651   | 652   | 283  | 0     | 380  | 641  | 6440  |
| PRODUCTION OF ENERGY :                |       |       |       |       |       |       |       |       |       |      |       |      |      |       |
| THERMAL ENERGY                        | GWH   | 2008  | 1815  | 2001  | 1942  | 2011  | 1942  | 2002  | 2008  | 880  | 0     | 1223 | 1960 | 19794 |
| ELECTRICAL GENERATED                  | GWH   | 684   | 617   | 684   | 662   | 683   | 659   | 677   | 678   | 298  | 0     | 406  | 667  | 6716  |
| ELECTRICAL NET                        | GWH   | 662   | 596   | 659   | 637   | 656   | 633   | 650   | 649   | 286  | 0     | 389  | 644  | 6461  |
| MAX. ELECTRICAL POWER NET             | MW    | 925   | 923   | 925   | 923   | 925   | 920   | 917   | 915   | 915  |       | 922  | 925  | 925   |
| UTILISATION PERIOD OF TURBOGENERATORS |       |       |       |       |       |       |       |       |       |      |       |      |      |       |
|                                       | HOURS | 744   | 672   | 743   | 720   | 744   | 720   | 744   | 744   | 336  | 0     | 547  | 737  | 7451  |
| FACTOR OF :                           |       |       |       |       |       |       |       |       |       |      |       |      |      |       |
| TIME UTILISATION                      | x     | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 46.6 | 0.0   | 76.0 | 99.1 | 85.1  |
| ENERGY AVAILABILITY                   | x     | 98.9  | 98.7  | 98.9  | 98.8  | 98.6  | 98.4  | 97.8  | 97.9  | 43.9 | 0.0   | 59.1 | 96.3 | 82.2  |
| ENERGY UNAVAILABILITY                 | x     | 1.1   | 1.3   | 1.1   | 1.2   | 1.4   | 1.6   | 2.2   | 2.1   | 56.1 | 100.0 | 40.9 | 3.7  | 17.8  |
| OF WHICH: PLANNED                     | x     | 0.1   | 0.1   | 0.0   | 0.1   | 0.1   | 0.1   | 0.3   | 0.0   | 55.5 | 100.0 | 40.0 | 0.1  | 16.4  |
| UNPLANNED                             | x     | 1.0   | 1.2   | 1.1   | 1.1   | 1.3   | 1.5   | 1.9   | 2.1   | 0.6  | 0.0   | 0.9  | 3.6  | 1.4   |
| LOAD FACTOR                           | x     | 99.4  | 99.0  | 99.0  | 98.8  | 98.6  | 98.2  | 97.6  | 97.5  | 44.2 | 0.0   | 60.4 | 96.8 | 82.4  |
| NET THERMAL EFFICIENCY                | x     | 33.0  | 32.8  | 32.9  | 32.8  | 32.6  | 32.6  | 32.5  | 32.3  | 32.4 | -     | 31.8 | 32.9 | 32.6  |

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 2686 | MW |
| FIRST CRITICALITY          | 19.09.1983 | INSTALLED CAPACITY          | 930  | MW |
| FIRST CONNECTION TO GRID   | 08.10.1983 | MAXIMUM OUTPUT CAPACITY     | 895  | MW |
| FIRST COMMERCIAL OPERATION | 00.02.1984 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED AT |       |       |       |       |       |       |       | CUMULATED AT 31.12.90 |
|---|-------|--------------|-------|-------|-------|-------|-------|-------|-------|-----------------------|
|   |       | 31.12.83     | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                       |
| PRODUCTION OF ENERGY :                    |       |              |       |       |       |       |       |       |       |                       |
| THERMAL                                   | GWH   | 2190         | 18350 | 19126 | 17876 | 19655 | 20676 | 19942 | 23228 | 141043                |
| ELECTRICAL GENERATED                      | GWH   | 742          | 6238  | 6541  | 6099  | 6663  | 7976  | 6800  | 7938  | 48097                 |
| ELECTRICAL NET                            | GWH   | 713          | 6013  | 6236  | 5826  | 6403  | 6810  | 6546  | 7649  | 46195                 |
| UTILISATION PERIOD OF TURBOGENERATORS     | HOURS | 0            | 0     | 7297  | 7098  | 7351  | 7838  | 7638  | 8652  | 45874                 |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY | HOURS | 796          | 6720  | 6964  | 6474  | 7157  | 7607  | 7315  | 8550  | 51582                 |
| FACTOR OF :                               |       |              |       |       |       |       |       |       |       |                       |
| ENERGY AVAILABILITY                       | X     | 40           | 77    | 83    | 75    | 81    | 86    | 83    | 97    | 82                    |
| LOAD FACTOR                               | X     | 40           | 77    | 80    | 74    | 82    | 87    | 84    | 98    | 81                    |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB  | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP  | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 664   | 573  | 658   | 637   | 659   | 636   | 655   | 655   | 524  | 663   | 640   | 663   | 7627  |
| PRODUCTION OF ENERGY :                |       |       |      |       |       |       |       |       |       |      |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 2009  | 1758 | 2006  | 1943  | 2010  | 1942  | 2005  | 2008  | 1611 | 1995  | 1933  | 2007  | 23228 |
| ELECTRICAL GENERATED                  | GWH   | 686   | 598  | 684   | 663   | 686   | 663   | 682   | 681   | 550  | 690   | 667   | 689   | 7938  |
| ELECTRICAL NET                        | GWH   | 665   | 578  | 661   | 639   | 661   | 638   | 656   | 654   | 527  | 661   | 643   | 667   | 7649  |
| MAX. ELECTRICAL POWER NET             | MW    | 928   | 927  | 927   | 929   | 926   | 926   | 922   | 918   | 926  | 931   | 931   | 932   | 932   |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 744   | 658  | 743   | 720   | 744   | 720   | 744   | 744   | 627  | 744   | 720   | 744   | 8652  |
| FACTOR OF :                           |       |       |      |       |       |       |       |       |       |      |       |       |       |       |
| TIME UTILISATION                      | X     | 100.0 | 97.9 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 87.0 | 100.0 | 100.0 | 100.0 | 98.8  |
| ENERGY AVAILABILITY                   | X     | 99.8  | 95.5 | 99.0  | 99.0  | 99.1  | 98.9  | 98.5  | 98.4  | 81.3 | 99.7  | 99.5  | 99.6  | 97.4  |
| ENERGY UNAVAILABILITY                 | X     | 0.2   | 4.5  | 1.0   | 1.0   | 0.9   | 1.1   | 1.5   | 1.6   | 18.7 | 0.3   | 0.5   | 0.4   | 2.6   |
| OF WHICH: PLANNED                     | X     | 0.1   | 0.0  | 0.0   | 0.2   | 0.0   | 0.1   | 0.2   | 0.0   | 17.9 | 0.0   | 0.1   | 0.1   | 1.5   |
| UNPLANNED                             | X     | 0.1   | 4.5  | 1.0   | 0.8   | 0.9   | 1.0   | 1.3   | 1.6   | 0.8  | 0.3   | 0.4   | 0.3   | 1.1   |
| LOAD FACTOR                           | X     | 99.8  | 96.1 | 99.4  | 99.2  | 99.3  | 98.9  | 98.5  | 98.2  | 81.6 | 99.3  | 99.8  | 100.1 | 97.6  |
| NET THERMAL EFFICIENCY                | X     | 33.1  | 32.9 | 32.9  | 32.9  | 32.9  | 32.8  | 32.7  | 32.6  | 32.7 | 33.2  | 33.3  | 33.2  | 32.9  |



STATION : ASCO 1

SPAIN

## GENERAL DATA

TYPE OF REACTOR PWR  
 FIRST CRITICALITY 17.06.1983  
 FIRST CONNECTION TO GRID 29.08.1983  
 FIRST COMMERCIAL OPERATION 00.09.1983

## SELECTED CHARACTERISTICS

THERMAL CAPACITY OF REACTOR 2696 MW  
 INSTALLED CAPACITY 930 MW  
 MAXIMUM OUTPUT CAPACITY 887 MW

## ANNUAL OPERATING DATA

|  |       | CUMULATED      |       |       |       |       |       |       |       | CUMULATED<br>AT<br>31.12.90 |
|--|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|
|  |       | AT<br>31.12.83 | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  |                             |
| PRODUCTION OF ENERGY :                       |       |                |       |       |       |       |       |       |       |                             |
| THERMAL                                      | GWH   | 1290           | 12520 | 13537 | 15803 | 19603 | 20040 | 20432 | 20079 | 123304                      |
| ELECTRICAL GENERATED                         | GWH   | 439            | 4257  | 4624  | 5366  | 6667  | 6923  | 7008  | 6887  | 42171                       |
| ELECTRICAL NET                               | GWH   | 361            | 4038  | 4403  | 5116  | 6390  | 6669  | 6750  | 6642  | 40369                       |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS | 0              | 5771  | 5342  | 6208  | 7569  | 7599  | 7771  | 7699  | 47959                       |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS | 473            | 4576  | 4976  | 5773  | 7201  | 7440  | 7534  | 7402  | 45375                       |
| FACTOR OF :                                  |       |                |       |       |       |       |       |       |       |                             |
| ENERGY AVAILABILITY                          | X     | 16             | 52    | 61    | 68    | 84    | 85    | 86    | 85    | 72                          |
| LOAD FACTOR                                  | X     | 16             | 52    | 57    | 66    | 82    | 85    | 86    | 85    | 71                          |

## MONTHLY OPERATING DATA DURING 1990

|  |       | JAN   | FEB   | MAR   | APR   | MAY  | JUN  | JUL  | AUG   | SEP   | OCT   | NOV   | DEC  | YEAR  |
|--|-------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-------|------|-------|
| AVAILABLE ENERGY                         | GWH   | 689   | 623   | 676   | 644   | 536  | 14   | 372  | 683   | 660   | 682   | 663   | 641  | 6883  |
| PRODUCTION OF ENERGY :                   |       |       |       |       |       |      |      |      |       |       |       |       |      |       |
| THERMAL ENERGY                           | GWH   | 1996  | 1803  | 1981  | 1865  | 1553 | 40   | 1104 | 1997  | 1935  | 1997  | 1932  | 1876 | 20079 |
| ELECTRICAL GENERATED                     | GWH   | 689   | 624   | 677   | 644   | 537  | 14   | 372  | 683   | 660   | 683   | 663   | 641  | 6887  |
| ELECTRICAL NET                           | GWH   | 665   | 602   | 654   | 621   | 514  | 14   | 358  | 660   | 638   | 658   | 639   | 619  | 6642  |
| MAX. ELECTRICAL POWER NET                | MW    | 930   | 932   | 932   | 932   | 843  | 687  | 924  | 924   | 918   | 924   | 924   | 925  | 932   |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 744   | 672   | 743   | 720   | 709  | 24   | 453  | 744   | 721   | 744   | 720   | 705  | 7699  |
| FACTOR OF :                              |       |       |       |       |       |      |      |      |       |       |       |       |      |       |
| TIME UTILISATION                         | X     | 100.0 | 100.0 | 100.0 | 100.0 | 95.3 | 3.3  | 60.9 | 100.0 | 100.0 | 100.0 | 100.0 | 94.8 | 87.9  |
| ENERGY AVAILABILITY                      | X     | 99.7  | 99.7  | 98.0  | 96.2  | 77.6 | 2.1  | 53.8 | 98.8  | 98.4  | 98.7  | 99.0  | 92.7 | 84.6  |
| ENERGY UNAVAILABILITY                    | X     | 0.3   | 0.3   | 2.0   | 3.8   | 22.4 | 97.9 | 46.2 | 1.2   | 1.6   | 1.3   | 1.0   | 7.3  | 15.4  |
| OF WHICH: PLANNED                        | X     | 0.0   | 0.1   | 0.0   | 1.7   | 17.4 | 97.9 | 45.4 | 0.1   | 0.1   | 0.0   | 0.1   | 0.0  | 13.5  |
| UNPLANNED                                | X     | 0.3   | 0.2   | 2.0   | 2.1   | 5.0  | 0.0  | 0.8  | 1.1   | 1.5   | 1.3   | 0.9   | 7.3  | 1.9   |
| LOAD FACTOR                              | X     | 99.6  | 99.8  | 98.0  | 96.2  | 77.6 | 2.1  | 53.8 | 98.7  | 98.4  | 98.7  | 99.0  | 92.6 | 84.5  |
| NET THERMAL EFFICIENCY                   | X     | 33.3  | 33.4  | 33.0  | 33.3  | 33.1 | 35.0 | 32.4 | 33.0  | 33.0  | 32.9  | 33.1  | 33.0 | 33.1  |

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 2696 | MW |
| FIRST CRITICALITY          | 11.09.1985 | INSTALLED CAPACITY          | 930  | MW |
| FIRST CONNECTION TO GRID   | 23.10.1985 | MAXIMUM OUTPUT CAPACITY     | 887  | MW |
| FIRST COMMERCIAL OPERATION | 02.02.1986 |                             |      |    |

ANNUAL OPERATING DATA

CUMULATED  
AT  
31.12.83

CUMULATED  
AT  
31.12.90

|  |       | 1984 | 1985 | 1986  | 1987  | 1988  | 1989  | 1990  |       |
|--|-------|------|------|-------|-------|-------|-------|-------|-------|
| PRODUCTION OF ENERGY :                       |       |      |      |       |       |       |       |       |       |
| THERMAL                                      | GWH   |      | 1121 | 16515 | 18179 | 20689 | 20426 | 20849 | 97779 |
| ELECTRICAL GENERATED                         | GWH   |      | 311  | 5638  | 6205  | 7117  | 6981  | 7188  | 33440 |
| ELECTRICAL NET                               | GWH   |      | 262  | 5369  | 5954  | 6865  | 6732  | 6933  | 32115 |
| UTILISATION PERIOD<br>OF TURBOGENERATORS     | HOURS |      | 991  | 6638  | 7035  | 7874  | 7729  | 7916  | 38183 |
| EQUIVALENT UTILISATION<br>AT OUTPUT CAPACITY | HOURS |      | 335  | 6062  | 6675  | 7651  | 7507  | 7726  | 35956 |
| FACTOR OF :                                  |       |      |      |       |       |       |       |       |       |
| ENERGY AVAILABILITY                          | %     |      | 76   | 74    | 81    | 87    | 86    | 90    | 83    |
| LOAD FACTOR                                  | %     |      | 20   | 69    | 76    | 87    | 86    | 88    | 79    |

MONTHLY OPERATING DATA DURING 1990

|  |       | JAN   | FEB   | MAR  | APR   | MAY  | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|--|-------|-------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                         | GWH   | 684   | 555   | 32   | 670   | 664  | 668   | 688   | 689   | 665   | 689   | 669   | 691   | 7364  |
| PRODUCTION OF ENERGY :                   |       |       |       |      |       |      |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                           | GWH   | 1997  | 1613  | 93   | 1435  | 1923 | 1933  | 1997  | 1999  | 1934  | 1997  | 1932  | 1996  | 20849 |
| ELECTRICAL GENERATED                     | GWH   | 684   | 595   | 32   | 492   | 664  | 668   | 688   | 689   | 666   | 689   | 669   | 692   | 7188  |
| ELECTRICAL NET                           | GWH   | 661   | 534   | 31   | 472   | 641  | 645   | 664   | 664   | 642   | 665   | 646   | 668   | 6933  |
| MAX. ELECTRICAL POWER NET                | MW    | 924   | 923   | 711  | 934   | 934  | 933   | 930   | 929   | 926   | 931   | 933   | 933   | 934   |
| UTILISATION PERIOD<br>OF TURBOGENERATORS | HOURS | 744   | 672   | 48   | 593   | 722  | 720   | 744   | 744   | 721   | 744   | 720   | 744   | 7916  |
| FACTOR OF :                              |       |       |       |      |       |      |       |       |       |       |       |       |       |       |
| TIME UTILISATION                         | %     | 100.0 | 100.0 | 6.5  | 82.4  | 97.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 90.4  |
| ENERGY AVAILABILITY                      | %     | 98.9  | 88.8  | 4.6  | 100.0 | 96.0 | 99.8  | 99.5  | 99.6  | 99.3  | 99.7  | 100.0 | 100.0 | 90.4  |
| ENERGY UNAVAILABILITY                    | %     | 1.1   | 11.2  | 95.4 | 0.0   | 4.0  | 0.2   | 0.5   | 0.4   | 0.7   | 0.3   | 0.0   | 0.0   | 9.6   |
| OF WHICH: PLANNED                        | %     | 0.1   | 10.5  | 95.4 | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 8.9   |
| UNPLANNED                                | %     | 1.0   | 0.7   | 0.0  | 0.0   | 4.0  | 0.2   | 0.5   | 0.4   | 0.7   | 0.3   | 0.0   | 0.0   | 0.7   |
| LOAD FACTOR                              | %     | 98.9  | 88.8  | 4.6  | 73.5  | 96.0 | 99.8  | 99.4  | 99.6  | 99.3  | 99.6  | 99.9  | 100.0 | 88.2  |
| NET THERMAL EFFICIENCY                   | %     | 33.1  | 33.1  | 33.3 | 32.9  | 33.3 | 33.4  | 33.2  | 33.2  | 33.2  | 33.3  | 33.4  | 33.5  | 33.3  |

STATION : TRILLO 1

SPAIN

GENERAL DATA

SELECTED CHARACTERISTICS

|                            |            |                             |      |    |
|----------------------------|------------|-----------------------------|------|----|
| TYPE OF REACTOR            | PWR        | THERMAL CAPACITY OF REACTOR | 3027 | MW |
| FIRST CRITICALITY          | 14.05.1988 | INSTALLED CAPACITY          | 1041 | MW |
| FIRST CONNECTION TO GRID   | 23.05.1988 | MAXIMUM OUTPUT CAPACITY     | 990  | MW |
| FIRST COMMERCIAL OPERATION | 06.08.1988 |                             |      |    |

| ANNUAL OPERATING DATA                     |       | CUMULATED |      |      |      |      |      |       | CUMULATED |          |
|---|-------|-----------|------|------|------|------|------|-------|-----------|----------|
|   |       | AT        | 1984 | 1985 | 1986 | 1987 | 1988 | 1989  | 1990      | AT       |
|   |       | 31.12.83  |      |      |      |      |      |       |           | 31.12.90 |
| PRODUCTION OF ENERGY :                    |       |           |      |      |      |      |      |       |           |          |
| THERMAL                                   | GWH   |           |      |      |      |      | 9703 | 22932 | 20373     | 53007    |
| ELECTRICAL GENERATED                      | GWH   |           |      |      |      |      | 3127 | 7643  | 6840      | 17610    |
| ELECTRICAL NET                            | GWH   |           |      |      |      |      | 2896 | 7148  | 6372      | 16416    |
| UTILISATION PERIOD OF TURBOGENERATORS     | HOURS |           |      |      |      |      | 3673 | 7665  | 7596      | 18934    |
| EQUIVALENT UTILISATION AT OUTPUT CAPACITY | HOURS |           |      |      |      |      | 2926 | 7218  | 6439      | 16583    |
| FACTOR OF :                               |       |           |      |      |      |      |      |       |           |          |
| ENERGY AVAILABILITY                       | %     |           |      |      |      |      | 67   | 84    | 75        | 76       |
| LOAD FACTOR                               | %     |           |      |      |      |      | 53   | 82    | 74        | 72       |

MONTHLY OPERATING DATA DURING 1990

|                                       |       | JAN   | FEB  | MAR  | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR  |
|---------------------------------------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AVAILABLE ENERGY                      | GWH   | 710   | 412  | 474  | 689   | 712   | 686   | 706   | 704   | 273   | 0     | 419   | 714   | 6499  |
| PRODUCTION OF ENERGY :                |       |       |      |      |       |       |       |       |       |       |       |       |       |       |
| THERMAL ENERGY                        | GWH   | 2236  | 1315 | 1490 | 2159  | 2232  | 2159  | 2223  | 2214  | 933   | 0     | 1179  | 2235  | 20373 |
| ELECTRICAL GENERATED                  | GWH   | 748   | 435  | 499  | 725   | 749   | 722   | 743   | 741   | 288   | 0     | 441   | 751   | 6840  |
| ELECTRICAL NET                        | GWH   | 701   | 406  | 465  | 678   | 698   | 673   | 690   | 686   | 261   | 0     | 411   | 702   | 6372  |
| MAX. ELECTRICAL POWER NET             | MW    | 947   | 948  | 948  | 947   | 941   | 939   | 936   | 937   | 480   |       | 950   | 949   | 950   |
| UTILISATION PERIOD OF TURBOGENERATORS | HOURS | 744   | 491  | 504  | 720   | 744   | 720   | 744   | 744   | 721   | 0     | 720   | 744   | 7596  |
| FACTOR OF :                           |       |       |      |      |       |       |       |       |       |       |       |       |       |       |
| TIME UTILISATION                      | %     | 100.0 | 73.1 | 67.8 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   | 100.0 | 100.0 | 86.7  |
| ENERGY AVAILABILITY                   | %     | 96.3  | 62.1 | 64.4 | 96.7  | 96.6  | 96.3  | 95.9  | 95.6  | 38.3  | 0.0   | 58.9  | 96.9  | 75.0  |
| ENERGY UNAVAILABILITY                 | %     | 3.7   | 37.9 | 35.6 | 3.3   | 3.4   | 3.7   | 4.1   | 4.4   | 61.7  | 100.0 | 41.1  | 3.1   | 25.0  |
| OF WHICH: PLANNED                     | %     | 3.3   | 10.5 | 3.6  | 3.1   | 3.0   | 3.1   | 3.1   | 3.1   | 25.2  | 100.0 | 41.1  | 3.1   | 16.9  |
| UNPLANNED                             | %     | 0.4   | 27.4 | 32.0 | 0.2   | 0.4   | 0.6   | 1.0   | 1.3   | 36.5  | 0.0   | 0.0   | 0.0   | 8.1   |
| LOAD FACTOR                           | %     | 95.2  | 61.0 | 63.2 | 95.1  | 94.8  | 94.4  | 93.7  | 93.1  | 36.6  | 0.0   | 57.7  | 95.4  | 73.5  |
| NET THERMAL EFFICIENCY                | %     | 31.4  | 30.8 | 31.2 | 31.4  | 31.3  | 31.2  | 31.1  | 31.0  | 28.0  | -     | 34.9  | 31.4  | 31.3  |

## DEFINITIONEN

- **Thermische Höchstleistung eines nuklearen Dampferzeugers** : Wärmeenergie, die in der Zeiteinheit durch den Dampferzeuger unter Betriebsbedingungen frei wird, welche der im Dauerbetrieb ausfahrbaren Höchstleistung entsprechen. Sie gibt das Wärmepotential des Reaktors an, ohne die eventuell durch den Brennstoff oder die anderen Anlagenteile verursachten Begrenzungen. Diese (in MW ausgedrückte) "Wärmeleistung" ist nicht mit der an den Klemmen der Generatorsätze gemessenen elektrischen Leistung zu verwechseln.
- **Erzeugte Wärmeenergie** : Wärmemenge, die bei der Spaltung des Kernbrennstoffes, der den Reaktorkern bildet, in einer bestimmten Zeitspanne frei wird. Diese (in GWh ausgedrückte) erzeugte Wärmeenergie ist nicht mit der an den Klemmen der Generatorsätze gemessenen elektrischen Energie zu verwechseln.
- **Nennleistung der Stromerzeuger** : Höchstleistung der wichtigsten Stromerzeuger bei Dauerbetrieb; gemessen an den Klemmen der Generatorsätze nach den gültigen Normen. Die Nennleistung ist eine Bruttoleistung.
- **Elektrische Leistung oder Arbeit aus Kernenergie** : Elektrische Leistung oder Arbeit, die allein auf Nutzung des Kernbrennstoffes beruht; sie enthält also nicht die Energie, die in Eigenbedarfsgeneratoren aus anderen als nuklearen Brennstoffen erzeugt wurde. Diese Leistung oder Arbeit kann eine Brutto- oder Nettoleistung (oder-Arbeit) sein.
- **Engpaßleistung** : Maximale elektrische Leistung, die mit dem vorhandenen Reaktorkern im Dauerbetrieb von 15 Stunden oder mehr gefahren werden kann, unter der Voraussetzung, daß alle Anlagenteile voll betriebsfähig sind. Der Wert der Engpaßleistung muß konstant bleiben, es sei denn, die Betriebsleitung trifft im Anschluß an eine definitive Änderung die Entscheidung, den ursprünglichen Wert durch einen neuen Wert zu ersetzen. Der Wert der Engpaßleistung bleibt von einem Stretch-out-Betrieb des Reaktors unberührt.  
  
Die Überlastleistung, die nur während einer beschränkten Zeitspanne aufrechterhalten werden kann, ist bei der Bestimmung der Engpaßleistung nicht zu berücksichtigen.
- **Höchstlast** : Festgestellter Höchstwert der im Laufe einer bestimmten Zeitspanne erzeugten elektrischen Leistung (stündliche oder halbstündliche Messung).
- **Elektrische Bruttoleistung oder -arbeit** : An den Klemmen der Generatorsätze gemessene elektrische Leistung oder Arbeit, die infolgedessen auch die von den Eigenbedarfsanlagen und durch die Verluste in den Transformatoren des Kraftwerks verbrauchte elektrische Arbeit umfaßt.
- **Elektrische Nettoleistung oder -arbeit** : Die an den Sammelschienen der Kraftwerke gemessene elektrische Leistung oder Arbeit, d.h. nach Abzug der von den Eigenbedarfsanlagen und durch die Verluste in den Transformatoren des Kraftwerks verbrauchten elektrischen Leistung oder Arbeit auch während des Stillstands des Kraftwerks. Es ist somit möglich, daß die elektrische Nettoarbeit negativ ist, entweder durch die Außerbetriebsetzung von Generatorsätzen oder auf Grund der Tatsache, daß der Gesamtverbrauch der Eigenbedarfsanlagen vorübergehend höher ist als die Bruttoerzeugung.
- **Zahl der Betriebsstunden** : Zahl der Stunden, während deren die Hauptgeneratoren des Kraftwerks an das Netz gekoppelt waren.
- **Zeitnutzung** : Quotient aus der Zahl der Betriebsstunden und der Gesamtstundenzahl der betreffenden Zeitspanne.
- **Arbeitsverfügbarkeit** : Quotient aus der Energie, die in einem bestimmten Zeitraum mit der verfügbaren Leistung erzeugt werden könnte, und der Energie, die in derselben Zeitspanne mit der Engpaßleistung erzeugt werden könnte. Die verfügbare Leistung ist die auf einen bestimmten Zeitpunkt bezogene höchste elektrische Leistung, die eine Kraftwerkseinheit während einer bestimmten Einsatzdauer unter den gegebenen Verhältnissen ausfahren kann, jedoch ohne Berücksichtigung ständiger oder vorübergehender Unzulänglichkeiten der Anlagen des Netzes oder einer möglichen Verringerung des Bedarfs der Verbraucher.
- **Arbeitsausnutzungsgrad** : Quotient aus der in einer bestimmten Zeitspanne erzeugten Energie und der Energie, die die gleiche Anlage bei Dauerbetrieb der Engpaßleistung hätte erzeugen können.
- **Ausnutzdauer** : Produkt aus dem Arbeitsausnutzungsgrad der Engpaßleistung und der Anzahl der Stunden dieser Zeitspanne.
- **Thermischer Nettowirkungsgrad** : Quotient aus der Nettoerzeugung elektrischer Arbeit und der Erzeugung von Wärmeenergie während einer bestimmten Zeitspanne.

**Anmerkung** : Arbeitsverfügbarkeit und Arbeitsausnutzung werden ab des Datums der ersten Netzkopplung berechnet, wenn diese sich innerhalb der Referenzzeitspanne befindet.

## DEFINITIONS

- **Puissance maximale thermique d'un générateur nucléaire de vapeur** : énergie calorifique dégagée par unité de temps par le générateur de vapeur dans les conditions de fonctionnement correspondant à la puissance maximale réalisable en régime continu. Elle caractérise les possibilités thermiques de ce générateur sans limitations éventuelles apportées par le combustible ou par les autres composants de l'installation. Cette "puissance thermique" (exprimée en MW) ne doit pas être confondue avec la puissance électrique récupérée aux bornes des groupes turbogénérateurs.
- **Energie thermique produite** : la quantité de chaleur dégagée du fait de la fission du combustible nucléaire constituant le coeur du réacteur. Cette énergie thermique produite (exprimée en GWh) ne doit pas être confondue avec l'énergie électrique récupérée aux bornes de groupes turbo-générateurs.
- **Puissance nominale des générateurs électriques** : puissance maximale en marche continue des générateurs électriques principaux déterminée aux bornes des groupes selon les normes admises. La puissance nominale est une puissance brute.
- **Puissance ou énergie électrique nucléaire** : puissance ou énergie électrique réalisée à partir de l'utilisation du combustible nucléaire; elles ne comprennent pas la puissance ou l'énergie produite par des générateurs auxiliaires alimentés avec des combustibles autres que nucléaires. Cette puissance ou cette énergie peuvent être brutes ou nettes.
- **Puissance maximale possible** : puissance électrique maximale réalisable avec le coeur actuel en marche continue d'une durée égale ou supérieure à 15 heures, la totalité des installations étant supposée entièrement en état de marche. La valeur de la puissance maximale possible doit rester constante à moins que, par suite d'une modification de caractère permanent, la direction de l'entreprise ne prenne la décision de substituer une nouvelle valeur à la valeur initiale. La valeur de la puissance maximale possible n'est pas modifiée par un fonctionnement du réacteur en "stretch-out".  
  
La puissance de surcharge, qui ne peut être maintenue que pendant une durée limitée, ne doit pas être prise en compte pour la détermination de la puissance maximale possible.
- **Puissance maximale atteinte** : maximum constaté de la puissance électrique produite au cours de la période considérée (relevé horaire ou demi-horaire).
- **Puissance ou énergie électrique brute** : puissance ou énergie électrique mesurée aux bornes des groupes de la centrale et comprenant par conséquent la puissance ou l'énergie électrique absorbée par les services auxiliaires et par les pertes dans les transformateurs de la centrale.
- **Puissance ou énergie électrique nette** : puissance ou énergie électrique mesurée à la sortie de la centrale, c'est-à-dire défalcation faite de la puissance ou de l'énergie électrique absorbée par les services auxiliaires et par les pertes dans les transformateurs de la centrale, même pendant le temps d'arrêt de la centrale. Il est donc possible que l'énergie électrique nette soit négative, soit de par l'arrêt des groupes de production, soit de par le fait que la consommation totale des auxiliaires soit momentanément supérieur à la production brute.
- **Nombre d'heures de marche** : nombre d'heures pendant lesquelles les générateurs principaux de la centrale ont été couplés au réseau.
- **Taux d'utilisation en temps** : quotient du nombre d'heures de marche par le nombre d'heures total de la période considérée.
- **Taux de disponibilité en énergie** : quotient de l'énergie qu'aurait pu produire, pendant la période considérée, la puissance disponible par l'énergie qu'aurait pu produire, pendant la même période, la puissance maximale possible.  
  
La puissance disponible est la puissance électrique maximale réalisable pendant un temps de fonctionnement déterminé et dans les conditions où l'unité nucléaire se trouve à l'instant considérée, mais sans limitation due à une insuffisance permanente ou temporaire des installations du réseau ou des besoins de la consommation.
- **Taux d'utilisation en énergie** : quotient de l'énergie produite au cours de la période considérée par l'énergie qu'aurait pu produire, pendant la même période, la puissance maximale possible en marche continue.
- **Durée d'utilisation de la puissance maximale possible** : produit du taux d'utilisation en énergie par le nombre d'heures de la période considérée.
- **Rendement thermique net** : quotient de la production nette d'énergie électrique par la production d'énergie thermique pendant l'intervalle de temps considéré.

**Nota** : Les taux de disponibilité et d'utilisation sont calculés à partir de la date du premier couplage lorsque celui-ci se situe à l'intérieur de la période de référence.

## DEFINITIONS

- **Thermal maximum capacity of a nuclear steam supply system** : quantity of heat released per unit of time by the nuclear steam generator, under operating conditions corresponding to the maximum power that can be achieved under continuous operation. It describes the thermal potential of the reactor without the limitations that may be imposed by the fuel or by other components of the installation. This "thermal capacity" (expressed in MW) must not be confused with the electrical capacity obtained at the terminals of the turbo-generators.
- **Thermal energy produced** : the quantity of heat released as a result of fission of the nuclear fuel inside the reactor. This thermal energy (expressed in GWh) must not be confused with the electrical energy obtained at the terminals of the sets.
- **Nominal capacity of electric generators** : maximum continuous rated capacity of the main electric generators as measured at the terminals of the sets. The nominal capacity is a gross capacity.
- **Nuclear electric capacity or energy** : electrical power or energy produced from nuclear fuels; it does not include the power or energy which can be produced by auxiliary generators using non-nuclear fuels. This power or this energy may be gross or net.
- **Maximum capacity** : maximum electric power that could be produced with the existing core configuration under continuous operation (15 hours or longer) on the assumption that all the station plant is in full working order. It is specified that this value must remain constant unless, following permanent modification, the management of the undertaking decides to amend the original value. Stretch-out operation of the reactor does not affect the stated maximum capacity.

The overload capacity, which can only be maintained for a limited period, must not be taken into account in determining the maximum capacity.

- **Maximum electric power produced** : the greatest recorded value of the power generated during the period under consideration (sampled every hour or every half an hour).
  - **Installed capacity or electrical generation** : the electric power or energy measured at the terminals of the stations generator sets, which thus includes the power or energy absorbed by the stations auxiliaries and the losses in the station transformers.
  - **Maximum output capacity or electrical net production** : the electric power or energy measured at the busbar of the power stations, i.e. after deduction of the power or energy absorbed by the stations auxiliaries and the losses in the station transformers, even during plant shut down. Consequently, it is possible for the electrical net production to have a negative value owing either to shut down of the generators or to the fact that the total consumption of the auxiliaries temporarily exceeds the produced electricity.
  - **Hours on line** : number of hours during which the power station's main generators were connected to the network.
  - **Time utilisation factor** : ratio of the generator operation period to the total number of hours in the period under consideration.
  - **Energy availability factor** : ratio of the energy that the available capacity could have produced during this period, to the energy that the maximum capacity could have produced during the same period.
- The available electric capacity is the electric power at which the station can be operated for a given period under the actual conditions prevailing at the station at the time, irrespective of any temporary or permanent inadequacy of the network or drop in consumers needs.
- **Load factor** : ratio of the energy that is produced during the period considered to the energy that could have been produced at maximum capacity under continuous operation during the whole of that period.
  - **Utilisation period** : product of the load factor and the number of hours considered in that period.
  - **Thermal net efficiency** : ratio of the electrical end production to the thermal energy produced during the given period.

**Nota** : The availability and load factors are calculated from the date of first connection to grid, wherever the latter is within the reference period.

**ES** **Clasificación de las publicaciones de Eurostat****TEMA**

- 1 Estadísticas generales (azul oscuro)
- 2 Economía y finanzas (violeta)
- 3 Población y condiciones sociales (amarillo)
- 4 Energía e industria (azul claro)
- 5 Agricultura, silvicultura y pesca (verde)
- 6 Comercio exterior (rojo)
- 7 Servicios y transportes (naranja)
- 8 Medio ambiente (turquesa)
- 9 Diversos (marrón)

**SERIE**

- A Anuarios
- B Coyuntura
- C Cuentas, encuestas y estadísticas
- D Estudios y análisis
- E Métodos
- F Estadísticas rápidas

**GR** **Ταξινόμηση των δημοσιεύσεων της Eurostat****ΘΕΜΑ**

- 1 Γενικές στατιστικές (βοθύ υπλε)
- 2 Οικονομία και δημοσιονομικό (βιολετι)
- 3 Πληθυσμός και κοινωνικές συνθήκες (κίτρινο)
- 4 Ενέργεια και βιομηχανία (μπλε)
- 5 Γεωργία, δόση και ολιείο (πρόσινο)
- 6 Εξωτερικό εμπόριο (κόκκινο)
- 7 Υπηρεσίες και μεταφορές (πορτοκαλί)
- 8 Περιβάλλον (τουρκουόζ)
- 9 Διάφορο (κοφέ)

**ΣΕΙΡΑ**

- A Επετηρίδες
- B Συγκυρίο
- C Λογισμοί, έρευνες και στατιστικές
- D Μελέτες και ονολύσεις
- E Μέθοδοι
- F Τοχείες στατιστικές

**IT** **Classificazione delle pubblicazioni dell'Eurostat****TEMA**

- 1 Statistiche generali (blu)
- 2 Economia e finanze (viola)
- 3 Popolazione e condizioni sociali (giallo)
- 4 Energia e industria (azzurro)
- 5 Agricoltura, foreste e pesca (verde)
- 6 Commercio estero (rosso)
- 7 Servizi e trasporti (arancione)
- 8 Ambiente (turchese)
- 9 Diversi (marrone)

**SERIE**

- A Annuari
- B Tendenze congiunturali
- C Conti, indagini e statistiche
- D Studi e analisi
- E Metodi
- F Note rapide

**DA** **Klassifikation af Eurostats publikationer****EMNE**

- 1 Almene statistikker (mørkeblå)
- 2 Økonomi og finanser (violet)
- 3 Befolkning og sociale forhold (gul)
- 4 Energi og industri (blå)
- 5 Landbrug, skovbrug og fiskeri (grøn)
- 6 Udenrigshandel (rød)
- 7 Tjenesteydelser og transport (orange)
- 8 Miljø (turkis)
- 9 Diverse statistikker (brun)

**SERIE**

- A Årbøger
- B Konjunkturoversigter
- C Regnskaber, tællinger og statistikker
- D Undersøgelser og analyser
- E Metoder
- F Ekspresoversigter

**EN** **Classification of Eurostat publications****THEME**

- 1 General statistics (midnight blue)
- 2 Economy and finance (violet)
- 3 Population and social conditions (yellow)
- 4 Energy and industry (blue)
- 5 Agriculture, forestry and fisheries (green)
- 6 Foreign trade (red)
- 7 Services and transport (orange)
- 8 Environment (turquoise)
- 9 Miscellaneous (brown)

**SERIES**

- A Yearbooks
- B Short-term trends
- C Accounts, surveys and statistics
- D Studies and analyses
- E Methods
- F Rapid reports

**NL** **Classificatie van de publicaties van Eurostat****ONDERWERP**

- 1 Algemene statistiek (donkerblauw)
- 2 Economie en financiën (paars)
- 3 Bevolking en sociale voorwaarden (geel)
- 4 Energie en industrie (blauw)
- 5 Landbouw, bosbouw en visserij (groen)
- 6 Buitenlandse handel (rood)
- 7 Diensten en vervoer (oranje)
- 8 Milieu (turkoois)
- 9 Diverse statistieken (bruin)

**SERIE**

- A Jaarboeken
- B Conjunctuur
- C Rekeningen, enquêtes en statistieken
- D Studies en analyses
- E Methoden
- F Spoedberichten

**DE** **Gliederung der Veröffentlichungen des Eurostat****THEMENKREIS**

- 1 Allgemeine Statistik (Dunkelblau)
- 2 Wirtschaft und Finanzen (Violett)
- 3 Bevölkerung und soziale Bedingungen (Gelb)
- 4 Energie und Industrie (Blau)
- 5 Land- und Forstwirtschaft, Fischerei (Grün)
- 6 Außenhandel (Rot)
- 7 Dienstleistungen und Verkehr (Orange)
- 8 Umwelt (Türkis)
- 9 Verschiedenes (Braun)

**REIHE**

- A Jahrbücher
- B Konjunktur
- C Konten, Erhebungen und Statistiken
- D Studien und Analysen
- E Methoden
- F Schnellberichte

**FR** **Classification des publications de l'Eurostat****THÈME**

- 1 Statistiques générales (bleu nuit)
- 2 Économie et finances (violet)
- 3 Population et conditions sociales (jaune)
- 4 Énergie et industrie (bleu)
- 5 Agriculture, sylviculture et pêche (vert)
- 6 Commerce extérieur (rouge)
- 7 Services et transports (orange)
- 8 Environnement (turquoise)
- 9 Divers (brun)

**SÉRIE**

- A Annuaire
- B Conjoncture
- C Comptes, enquêtes et statistiques
- D Études et analyses
- E Méthodes
- F Statistiques rapides

**PT** **Classificação das publicações do Eurostat****TEMA**

- 1 Estatísticas gerais (azul escuro)
- 2 Economia e finanças (violeta)
- 3 População e condições sociais (amarelo)
- 4 Energia e indústria (azul)
- 5 Agricultura, silvicultura e pesca (verde)
- 6 Comércio externo (vermelho)
- 7 Serviços e transportes (laranja)
- 8 Ambiente (turquesa)
- 9 Diversos (castanho)

**SÉRIE**

- A Anuários
- B Conjuntura
- C Contas, inquéritos e estatísticas
- D Estudos e análises
- E Métodos
- F Estatísticas rápidas





Europäische Gemeinschaften – Kommission  
European Communities – Commission  
Communautés européennes – Commission

**Betriebsergebnisse der Kernkraftwerke 1990**  
**Operation of nuclear power stations 1990**  
**Exploitation des centrales nucléaires 1990**

Luxembourg : Office des publications officielles des Communautés européennes

1991 – 142 p. – 21,0 × 29,7 cm

Themenkreis 4: Energie und Industrie (blaue Hefte)  
Reihe C: Konten, Erhebungen und Statistiken  
Theme 4: Energy and industry (blue covers)  
Series C: Accounts, surveys and statistics  
Thème 4: Énergie et industrie (couverture bleue)  
Série C: Comptes, enquêtes et statistiques

DE/EN/FR

ISBN 92-826-2830-2

Kat./Cat.: CA-70-91-952-3A-C

Preis in Luxemburg (ohne MwSt.) • Price (excluding VAT) in Luxembourg • Prix au Luxembourg,  
TVA exclue:

ECU 11,50

Diese Jahresveröffentlichung enthält in ihrem ersten Teil statistische Angaben über die wichtigsten Betriebsergebnisse des Vorjahres, über die Struktur der Kernkraftanlagen und deren Betriebszustand (in Betrieb oder im Bau befindlich). Ferner wird die Verfügbarkeit an Energie, unter Berücksichtigung des Reaktortyps, angegeben.

Im zweiten Teil der Veröffentlichung werden für jedes Kernkraftwerk der Gemeinschaft die monatlichen Betriebsergebnisse des Vorjahres sowie die jährlichen Angaben seit der ersten Inbetriebnahme ausgewiesen.

This annual publication presents in its first part the main operating statistics for the past year, gives an outline of the structure of the nuclear plant situation, with units on line as well as units under construction and analyses the energy availability, according to the reactor type.

The second part of the publication gives the monthly operating data for each nuclear power station of the Community as well as the yearly results since the first connection to the grid.

Cette publication annuelle fournit, dans une première partie, les données caractéristiques d'exploitation pour l'année écoulée, indique la structure du parc nucléaire en précisant la situation des centrales en service et en construction et analyse la disponibilité en énergie en fonction de la filière des réacteurs.

La deuxième partie de l'ouvrage donne, pour chaque centrale de la Communauté, les résultats mensuels de l'année écoulée ainsi que les données historiques annuelles depuis le premier couplage.



**Venta y suscripciones • Salg og abonnement • Verkauf und Abonnement • Πωλήσεις και συνδρομές  
Sales and subscriptions • Vente et abonnements • Vendita e abbonamenti  
Verkoop en abonnementen • Venda e assinaturas**

**BELGIQUE / BELGIË**

**Moniteur belge / Belgisch Staatsblad**  
Rue de Louvain 42 / Leuvenseweg 42  
1000 Bruxelles / 1000 Brussel  
Tél. (02) 512 00 26  
Fax 511 01 84  
CCP / Postrekening 000-2005502-27

Autres distributeurs /  
Overige verkooppunten

**Librairie européenne/ Europese Boekhandel**  
Avenue Albert Jonnart 50 /  
Albert Jonnartlaan 50  
1200 Bruxelles / 1200 Brussel  
Tél. (02) 734 02 81  
Fax 735 08 60

**Jean De Lannoy**

Avenue du Roi 202 / Koningslaan 202  
1060 Bruxelles / 1060 Brussel  
Tél. (02) 538 51 69  
Télex 63220 UNBOOK B  
Fax (02) 538 08 41

**CREDOC**

Rue de la Montagne 34 / Bergstraat 34  
Bte 11 / Bus 11  
1000 Bruxelles / 1000 Brussel

**DANMARK**

**J. H. Schultz Information A/S  
EF-Publikationer**

Ottliavej 18  
2500 Valby  
Tlf. 36 44 22 66  
Fax 36 44 01 41  
Girokonto 6 00 08 86

**BR DEUTSCHLAND**

**Bundesanzeiger Verlag**

Breite Straße  
Postfach 10 80 06  
5000 Köln 1  
Tel. (02 21) 20 29-0  
Fernschreiber:  
ANZEIGER BONN 8 882 595  
Fax 20 29 278

**GREECE**

**G.C. Eleftheroudakis SA**

International Bookstore  
Nikis Street 4  
10563 Athens  
Tel. (01) 322 63 23  
Telex 219410 ELEF  
Fax 323 98 21

**ESPAÑA**

**Boletín Oficial del Estado**

Trafalgar, 27  
28010 Madrid  
Tel. (91) 44 82 135

**Mundi-Prensa Libros, S.A.**

Castelló, 37  
28001 Madrid  
Tel. (91) 431 33 99 (Libros)  
431 32 22 (Suscripciones)  
435 36 37 (Dirección)

Télex 49370-MPLI-E  
Fax (91) 575 39 98

**Sucursal:**

**Librería Internacional AEDOS**  
Consejo de Ciento, 391  
08009 Barcelona  
Tel. (93) 301 86 15  
Fax (93) 317 01 41

**Libreria de la Generalitat de Catalunya**

Rambla dels Estudis, 118 (Palau Moja)  
08002 Barcelona  
Tel. (93) 302 68 35  
302 64 62  
Fax 302 12 99

**FRANCE**

**Journal officiel  
Service des publications  
des Communautés européennes**

26, rue Desaix  
75727 Paris Cedex 15  
Tél. (1) 40 58 75 00  
Fax (1) 40 58 75 74

**IRELAND**

**Government Publications  
Sales Office**

Sun Alliance House  
Molesworth Street  
Dublin 2  
Tel. 71 03 09

or by post

**Government Stationery Office**

**EEC Section**

6th floor  
Bishop Street  
Dublin 8  
Tel. 78 16 66  
Fax 78 06 45

**ITALIA**

**Licosa Spa**

Via Benedetto Fortini, 120/10  
Casella postale 552  
50125 Firenze  
Tel. (055) 64 54 15  
Fax 64 12 57  
Telex 570466 LICOSA I  
CCP 343 509

Subagenti:

**Libreria scientifica  
Lucio de Biasio - AEIOU**

Via Meravigli, 16  
20123 Milano  
Tel. (02) 80 76 79

**Herder Editrice e Libreria**

Piazza Montecitorio, 117-120  
00186 Roma  
Tel. (06) 679 46 28/679 53 04

**Libreria giuridica**

Via XII Ottobre, 172/R  
16121 Genova  
Tel. (010) 59 56 93

**GRAND-DUCHÉ DE LUXEMBOURG**

Abonnements seulement  
Subscriptions only  
Nur für Abonnements

**Messageries Paul Kraus**

11, rue Christophe Plantin  
2339 Luxembourg  
Tél. 499 88 88  
Télex 2515  
Fax 499 88 84 44  
CCP 49242-63

**NEDERLAND**

**SDU Overheidsinformatie**

Externe Fondsen  
Postbus 20014  
2500 EA 's-Gravenhage  
Tel. (070) 37 89 911  
Fax (070) 34 75 778

**PORTUGAL**

**Imprensa Nacional**

Casa da Moeda, EP  
Rua D. Francisco Manuel de Melo, 5  
P-1092 Lisboa Codex  
Tel. (01) 69 34 14

**Distribuidora de Livros  
Bertrand, Ld.ª**

**Grupo Bertrand, SA**

Rua das Terras dos Vales, 4-A  
Apartado 37  
P-2700 Amadora Codex  
Tel. (01) 49 59 050  
Telex 15798 BERDIS  
Fax 49 60 255

**UNITED KINGDOM**

**HMSO Books (PC 16)**

HMSO Publications Centre  
51 Nine Elms Lane  
London SW8 5DR  
Tel. (071) 873 9090  
Fax GP3 873 8463  
Telex 29 71 138

Sub-agent:

**Alan Armstrong Ltd**

2 Arkwright Road  
Reading, Berks RG2 0SQ  
Tel. (0734) 75 18 55  
Telex 849937 AAALTD G  
Fax (0734) 75 51 64

**ÖSTERREICH**

**Manz'sche Verlags-  
und Universitätsbuchhandlung**

Kohlmarkt 16  
1014 Wien  
Tel. (0222) 531 61-0  
Telex 11 25 00 BOX A  
Fax (0222) 531 61-81

**SVERIGE**

**BTJ**

Box 200  
22100 Lund  
Tel. (046) 18 00 00  
Fax (046) 18 01 25

**SCHWEIZ / SUISSE / SVIZZERA**

**OSEC**

Stampfenbachstraße 85  
8035 Zürich  
Tel. (01) 365 51 51  
Fax (01) 365 54 11

**MAGYARORSZÁG**

**Agroinform**

Központ:  
Budapest I., Attila út 93. H-1012

Levelcim:

Budapest, Pf.: 15 H-1253  
Tel. 36 (1) 56 82 11  
Telex (22) 4717 AGINF H-61

**POLAND**

**Business Foundation**

ul. Wspólna 1/3  
PL-00-529 Warszawa  
Tel. 48 (22) 21 99 93/21 84 20  
Fax 48 (22) 28 05 49

**YUGOSLAVIA**

**Privredni Vjesnik**

Bulevar Lenjina 171/XIV  
11070 - Beograd  
Tel. 123 23 40

**TÜRKIYE**

**Pres Dagitim Ticaret ve sanayi A.Ş.**

Naribahçe Sokak No. 15  
Cağaloğlu  
Istanbul  
Tel. 512 01 90  
Telex 23822 DSVO-TR

**AUTRES PAYS  
OTHER COUNTRIES  
ANDERE LÄNDER**

**Office des publications officielles  
des Communautés européennes**

2, rue Mercier  
L-2985 Luxembourg  
Tél. 49 92 81  
Télex PUBOF LU 1324 b  
Fax 48 85 73  
CC bancaire BIL 8-109/6003/700

**CANADA**

**Renouf Publishing Co. Ltd**

Mail orders — Head Office:  
1294 Algoma Road  
Ottawa, Ontario K1B 3W8  
Tel. (613) 741 43 33  
Fax (613) 741 54 39  
Telex 0534783

Ottawa Store:  
61 Sparks Street  
Tel. (613) 238 89 85

Toronto Store:  
211 Yonge Street  
Tel. (416) 363 31 71

**UNITED STATES OF AMERICA**

**UNIPUB**

4611-F Assembly Drive  
Lanham, MD 20706-4391  
Tel. Toll Free (800) 274 4888  
Fax (301) 459 0056

**AUSTRALIA**

**Hunter Publications**

58A Gipps Street  
Collingwood  
Victoria 3066

**JAPAN**

**Kinokuniya Company Ltd**

17-7 Shinjuku 3-Chome  
Shinjuku-ku  
Tokyo 160-91  
Tel. (03) 3439-0121

**Journal Department**

PO Box 55 Chitose  
Tokyo 156  
Tel. (03) 3439-0124

Preis in Luxemburg (ohne MwSt.) / Price (excluding VAT) in Luxembourg / Prix au Luxembourg, TVA exclue

ECU 11,50



OFICINA DE PUBLICACIONES OFICIALES DE LAS COMUNIDADES EUROPEAS  
KONTORET FOR DE EUROPÆISKE FÆLLESSKABERS OFFICIELLE PUBLIKATIONER  
AMT FÜR AMTLICHE VERÖFFENTLICHUNGEN DER EUROPÄISCHEN GEMEINSCHAFTEN  
ΥΠΗΡΕΣΙΑ ΕΠΙΣΗΜΩΝ ΕΚΔΟΣΕΩΝ ΤΩΝ ΕΥΡΩΠΑΪΚΩΝ ΚΟΙΝΟΤΗΤΩΝ  
OFFICE FOR OFFICIAL PUBLICATIONS OF THE EUROPEAN COMMUNITIES  
OFFICE DES PUBLICATIONS OFFICIELLES DES COMMUNAUTÉS EUROPÉENNES  
UFFICIO DELLE PUBBLICAZIONI UFFICIALI DELLE COMUNITÀ EUROPEE  
BUREAU VOOR OFFICIËLE PUBLIKATIES DER EUROPESE GEMEENSCHAPPEN  
SERVIÇO DAS PUBLICAÇÕES OFICIAIS DAS COMUNIDADES EUROPEIAS

L-2985 Luxembourg

ISBN 92-826-2830-2



9 789282 628300