COMMISSION OF THE EUROPEAN COMMUNITIES

AUTHORIZATION PROCEDURE FOR THE CONSTRUCTION AND OPERATION OF NUCLEAR INSTALLATIONS WITHIN THE EEC MEMBER STATES

1974

Report prepared by
J.M. DIDIER and Associates, Legal and Economic Consultants on the European Community, Brussels — Belgium

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J.M. DIDIER and Associates, Legal and Economic Consultants
on the European Community, Brussels — Belgium
on the request of
the Directorate-General for Industrial and Technological Affairs, Brussels — Belgium
ABSTRACT

For Belgium and Luxembourg, the authorization procedure varies according to the Class in which the installation concerned falls (assigned according to the degree of hazard involved: Classes I, II or III). Moreover, separate authorizations are needed, one for construction and another for operation of Class I and II installations.

With respect to Germany also, two such separate authorizations are needed, but there is no specific procedure relating to the potential extent of hazard involved in the installation concerned.

In France, the "basic" nuclear installations are subject to a special procedure. Furthermore, the construction and operation of these installations are also subject to two separate authorizations.

While the latter two authorizations are required in Italy for the main nuclear installations, no system of "classified" installations exists according to extent of hazard involved. Similar legislation is applicable in the Netherlands.

Neither does such a system of "classified" installations exist in the United Kingdom. Moreover, there is only one single authorization (the "site licence"), which is successively adapted during construction.

On the other hand, in Denmark and Ireland, no detailed legislation has been developed on the subject.
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SUMMARY

For Belgium and Luxembourg, the authorization procedure varies according to the Class in which the installation concerned falls (assigned according to the degree of hazard involved: Classes I, II or III). Moreover, separate authorizations are needed, one for construction and another for operation of Class I and II installations.

With respect to Germany also, two such separate authorizations are needed, but there is no specific procedure relating to the potential extent of hazard involved in the installation concerned.

In France, the "basic" nuclear installations are subject to a special procedure. Furthermore, the construction and operation of these installations are also subject to two separate authorizations.

While the latter two authorizations are required in Italy for the main nuclear installations, no system of "classified" installations exists according to extent of hazard involved. Similar legislation is applicable in the Netherlands.

Neither does such a system of "classified" installations exist in the United Kingdom. Moreover, there is only one single authorization (the "site licence"), which is successively adapted during construction.

On the other hand, in Denmark and Ireland, no detailed legislation has been developed on the subject.
Note

The monographies constituting the present study are based upon the laws existing in Member States in the Summer of 1974. These laws are constantly evolving. Amendments have in fact been introduced between the Summer of 1974 and the date of printing of the present study, and new ones may very likely be expected in the future. These amendments might even lead to basic changes in certain countries, such as Denmark, Luxembourg and Ireland.

For these reasons, the competent Departments of the Commission of the European Communities intend to carefully register the said amendments and regularly update the various monographies. In the circumstances, these Departments would be grateful if persons interested would communicate to them any comments or suggestions to improve the said monographies. Such observations should be addressed to Directorate III/C, Commission of the European Communities, 200, rue de la Loi, Brussels, Belgium.
INTRODUCTION

The study on the authorization procedure for the construction and operation of nuclear installations in the various Member States presents several difficulties. Indeed, in the first place, certain Member States have already developed quite refined and detailed legislation on this subject, based on their experience gained from the actual establishment on their territory of several nuclear installations. On the contrary, in other Member States, the decision has not yet been taken whether such installations should be admitted or not, and thus whether their respective legislation should be developed or amended accordingly.

Moreover, additional difficulties arise from the material divergences that exist between the various Member States' legislation. These divergences relate notably not only to the kind of nuclear installations which are subject to the respective national procedures, but also as to which and how many authorities are to be involved in these procedures. Furthermore, the total time of duration for the procedure before final authorization is granted, differs widely among the various Member States, and so does the extent to which the public is permitted to intervene in the authorization procedure.

To facilitate comparison between the various legislation examined in the present study, similar subjects have been grouped together where it was possible - notably with respect to the level - national or regional - at which the appropriate procedure is taking place. In addition, Charts have been annexed in most cases to show the different procedures in a simplified way.
1. **BELGIQUE**

I. LEGISLATIVE SOURCES

1. The skeleton law providing the foundations for successive laws in particular laying down the authorization procedures for the construction and operation of nuclear installations is the Act of 29 March 1958 (1) concerning the protection of the population against the dangers caused by ionizing radiation. In particular, Art. 2 of this Act reads: "The King is authorized to subject to conditions aimed at protecting the health of the population, the importation, production, manufacture, retention, transportation or use for commercial, industrial, scientific, medical or other purposes, of appliances or substances capable of emitting ionizing radiation. To this end, He may also regulate the disposal and evacuation of radioactive substances".

2. Pursuant to this skeleton law, a Royal Decree (2) laying down general rules for protecting the population and workers against the dangers caused by ionizing radiation was adopted on 28 February 1963. This Decree contains, in particular, a broad classification of nuclear installations in descending order of the danger involved in such activities (see point 3), as well as the rules governing the granting of authorizations for the construction (see points 4 to 43) and operation (see points 44 to 47) of each class of installation.

---

(1) "Loi relative à la protection de la population contre les dangers résultant des radiations ionisantes"/"Wet betreffende de bescherming van de bevolking tegen de uit ioniserende stralingen voort­spruitende gevaren" (Moniteur Belge/Belgisch Staatsblad, 30 April 1958, p. 3286).

II. AUTHORIZATION PROCEDURE

A. Authorization for construction

3. The Royal Decree of 28 February 1963 defines four classes of nuclear installations (1), only three of which (class I, II, III) are subject to authorization for construction (2). Installations being comprised in more than one class are subject to the provisions relating to the highest class. As well as installations falling within class IV (3), installations where experiments or tests on materials, or processes

(1) See Art. 3(3) of the Royal Decree of 28 February 1963. For the purposes of this document, this Decree will be referred to as the "R.D.63".
(2) See Art. 5(1) of the R.D.63.
(3) Class IV includes the following installations (see Art. 3(1)d of the R.D.63).

1. installations where radioactive nuclides are used or kept in amounts, the total activity of which is contained within the range of the X4 values given in the table below;

2. installations where appliances which are used or kept contain radioactive substances in amounts which may be higher than the values laid down in paragraph 1 of this Class, but provided that: a) these radioactive substances are efficiently protected against any risk of contact and leak; b) the maximum dose does not exceed 0.1 millirem per hour at any accessible point within a distance of 0.1 meter from the outer surface of the appliance; c) these appliances are of the type approved by the Ministry for Employment and Labour and by the Ministry for Public Health and the Family;

3. installations where radioactive substances are used or kept in any amount provided that the concentration of these radioactive substances is less than 0.002 microcurie per gramme, or less than 0.01 microcurie per gramme for natural solid radioactive substances.

CLASSIFICATION OF RADIOACTIVE SUBSTANCES

<table>
<thead>
<tr>
<th>RADIO-TOXICITY</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Very high</td>
<td>X2 &gt; 100 μCi</td>
<td>100 μCi &gt; X3 &gt; 0.1 μCi</td>
<td>0.1 μCi &gt; X4</td>
</tr>
<tr>
<td>B High</td>
<td>X2 &gt; 1 mCi</td>
<td>1 mCi &gt; X3 &gt; 1 μCi</td>
<td>1 μCi &gt; X4</td>
</tr>
<tr>
<td>C Moderate</td>
<td>X2 &gt; 10 mCi</td>
<td>10 mCi &gt; X3 &gt; 10 μCi</td>
<td>10 μCi &gt; X4</td>
</tr>
<tr>
<td>D Low</td>
<td>X2 &gt; 100 mCi</td>
<td>100 mCi &gt; X3 &gt; 100 μCi</td>
<td>100 μCi &gt; X4</td>
</tr>
</tbody>
</table>
involving the use of ionizing radiation are occasionally carried out, are also exempt from such authorizations provided that:
a) these operations are performed exclusively by the staff of another installation duly authorized to carry out such work and
b) the professional body which controls the installation or the professional experts in charge, where appropriate, of its physics control department approves the operations (1). The following paragraphs (see points 4 to 43) are designed to describe the authorization procedure for the construction of installations falling within classes I to III.

1) Authorization for Class I installations (2)

4. Class I contains the following installations (3):

1. nuclear reactors
2. installations where fissile materials (natural uranium excluded) are used or kept in amounts greater than one half of the minimum critical mass;
3. reprocessing plants for irradiated fuels, either enriched or not.

For installations in this class, some of the procedural steps are to be carried out at regional level (see points 5 to 9), and others at national level (see points 10 to 16).

(1) See Art. 5(7) of the Royal Decree of 28 February 1963.
(2) A schematic description of this procedure is given in Chart I, annexed hereto.
(3) See Art. 3(1)a) of the R.D.63. The corresponding class of installations operated by the Belgian State or by one of the bodies of public interest, listed in category A of the Act of 16 March 1954 concerning the supervision of certain bodies of public interest, are also subject to the following rules (see Art. 10(2) of the R.D.63). The same is true if the installation in question also complies with the definitions of other classes (see Art. 11(1) of the R.D.63).
a) Regional level

5. The application for authorization must be forwarded in quintuplicate by the person concerned to the Governor of the Province (1) ("gouverneur de la province"/"gouverneur van de provincie") in which the installation is to be located (2).

6. One copy of this application is then forwarded by the Governor to the Mayor ("bourgmestre"/"burgemeester") of the Commune in which the installation is to be situated (3). The Mayor then posts official notices announcing the said application for a period of two weeks, so as to allow the terms of the application to be examined by the public in the Town Hall and observations or complaints to be addressed to the Mayor (4).

7. The said application, along with any observations from the public of the Commune concerned are then submitted by the Mayor to the Council of Aldermen ("collège échevinal"/"schepencollege") of the Commune for Opinion (5).

---

(1) The Belgian Provinces are: Anvers/Antwerpen, Brabant, Flandre Occidentale/West Vlaanderen, Flandre Orientale/Oost Vlaanderen, Hainaut/Henegouw, Liège/Luik, Limbourg/Limburg, Luxembourg/Luxembourg, Namur/Namen.

(2) See the first sentence of Art. 6(2) of the R.D.63.

(3) See Art. 6(3)(1) of the R.D.63.

(4) See Art. 6(3)(2) of the R.D.63. The procedure is the same in Communes which are less than 500 metres from the installation concerned.

(5) See Art. 6(3)(3) of the R.D.63.
8. This Opinion, together with the public's observations (see point 6) and the application itself, is then forwarded by the Mayor concerned to the Governor of the Province. This must be done, in any case, within forty days of the receipt by the Mayor of the said application from the Governor (1).

9. All these documents are then forwarded by the Governor to the Permanent Delegation ("députation permanente"/"bestendige deputatie") of the Province concerned, which must express its Opinion on the application within thirty days (2).

b) National level

10. The Opinion of the Permanent Delegation, along with all the documents referred to in point 8, is then forwarded by the Governor of the Province to the said "Special Commission" (3).

The Special Commission is composed as follows (Art. 6(6) of the R.D.63):

1. the Director-General of the Administration of Public Health or a delegate;
2. the Chief-Inspector, the Director of Public Health, or a delegate;
3. the Director of the Institute for Health and Epidemiology;
4. the Director-General of the Administration for Labour Safety or a delegate;
5. the chief-engineer, the Director of the Technical Inspectorate for labour, the Head of the district concerned or a delegate;
6. the Director-General of the Administration of Health and of Labour Medicine, or its delegate;
7. the Commission for Atomic Energy or a delegate;

(1) See Art. 6(3)(3) of the R.D.63
(2) See Art. 6(4) of the R.D.63.
(3) See Art. 6(5)(1) of the R.D.63.
8. ten persons selected for their special scientific qualifications in the following fields: nuclear physics, nuclear chemistry, radiobiology, radioprotection, technology and safety of nuclear installations, metallurgy, meteorology, geology and hydrology. Such persons are appointed jointly by the Minister for Employment and Labour and the Minister for Health and the Family;

9. a secretary and a joint secretary appointed jointly by these Ministers.

11. This Commission then delivers a provisional Opinion which is sent by registered letter to the applicant. Prior to this, however (1), the Special Commission may either require from the applicant, or request itself, an opinion from any national, international or foreign experts or bodies on general or specific aspects of the planned installation with regard to security and health. Furthermore, the Special Commission may, on the same subject, request the Opinion of the Commission of the European Communities through the Administration of Public Health. The Opinion of the Commission of the EC must, through the Administration of Public Health, compulsorily be sought in the cases specified in Art. 37 of the Euratom Treaty (2). Before the provisional Opinion of the Special Commission is delivered, the applicant may be called before it and heard.

12. After the provisional opinion has been delivered, the applicant may communicate, within 30 days - or longer if he requires and his request for an extension of this period is granted by the Special Commission - any observations he may wish to make to the Commission, which then delivers a final reasoned Opinion (3). This reasoned Opinion must be expressed within three months of the receipt of the Opinion, where appropriate, of the Commission of the European Communities (see point 11). If this time limit

(1) See Art. 6(5)(2) to (5) of the R.D.63.
(2) Art. 37(1) of the Euratom Treaty states: "Each Member State shall provide the Commission (of the European Communities) with such general data relating to any plan for the disposal of radioactive waste in whatever form as will make it possible to determine whether the implementation of such plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State".
(3) See Art. 6(5)(5) of the R.D.63.
is not adhered to, the Special Commission must justify the delay (1). In addition, this Opinion may include special operating conditions which are not laid down in the Royal Decree of 28 February 1963, but which the Special Commission considers to be essential for the safety and health of the planned installation (2).

13. The final decision on the authorization concerned is taken in the form of a Royal Decree and countersigned by the Minister of Employment and Labour and the Minister for Public Health and the Family (3).

14. The authorization is refused if the Opinion of the Special Commission (see point 12) is unfavourable (4). But, if this Opinion is favourable, the Decree refusing the said authorization must be motivated (5).

---

(1) See Art. 5(5) (6) of the R.D.63
(2) See Art. 6(5) (7) "
(3) See Art. 6(7) (1) "
(4) See Art. 6(7) (2) "
(5) See Art. 6(7) (3) "
15. Lastly, the final decision is communicated to the Special Commission and to the Governor of the Province concerned, who transmits a copy of it to (1):
1. the applicant by registered letter;
2. the Mayor of any relevant Commune;
3. the chief-engineer or Director of the Technical Inspectorate for Labour, the Head of the district concerned;
4. the Medical Inspector of Labour concerned;
5. the Director-General of the Administration for Civil Protection.

16. No appeal is provided for in case of refusal of the said authorization.

2) Authorization for Class II installations (2)

17. Class II contains the following installations (3):
1. installations where fissile materials are used or kept in any quantity and are not covered by Class I (enriched uranium excluded) (see point 4);
2. installations where radioactive nuclides are used or kept in amounts the total activity of which is contained within the range of the X2 values given in the table classifying radioactive substances (4);
3. installations for collecting, processing, conditioning and storing radioactive waste;
4. installations using fixed appliances producing X-rays and capable of operating at a voltage in excess of 200 kV;
5. particle accelerators.

(1) A schematic description of this procedure is given in Chart II, annexed hereto.
(2) See Art. 6(8) of the R.D.63.
(3) See Art. 3(1)(b) of the R.D.63. If the installation concerned also falls within the definitions of other classes and if Class II is the highest class concerned, the rules applicable to Class II apply to this installation (see Art. 11(1) of the R.D.63).
(4) See note 3 on page 2, of this document.
With regard to Class II installations operated by the Belgian State or by one of the bodies of public interest, listed in category A of the Act of 16 March 1954 concerning the control of certain bodies of public interest, the authorization procedure applicable can be summarized as follows: the Minister who is competent in respect of the installation concerned forwards his application directly to the Mayor of the Commune in which it is planned to locate the installation. The latter then submits, without any time limit, the application for the Opinion of the Council of Aldermen concerned. The application, together with the Opinion are then returned by the Mayor to the competent Minister (see Art. 10(3) (b) and (c) of the R.D.63) within thirty days of receipt of the application. The Minister then forwards all these documents to the "Special Commission" which may, or must, as for the Class I authorization procedure, request the Opinion of certain bodies or experts (see Art. 10(3)(d) of the R.D.63 and point 11 of this document). The final decision is given and the parties concerned are notified, in accordance with the procedures described in points 13 to 15 of this document (see Art. 10(3)(e) of the R.D.63).

For installations covered by this class, some of the procedural steps are to be carried out at regional level (see points 18 to 29), and others at national level (see points 30 to 34).

a) Regional level

18. The application for authorization must be forwarded in quintuplicate by the person concerned to the Governor of the Province in which the installation is to be located (1).

19. One copy of the application is then forwarded by the Governor to the Mayor of the Commune in which the installation is to be situated (2).

(1) See the first sentence of Art. 7(2) of the R.D.63.
(2) See Art. 7(3)(1) of the R.D.63.
20. The said application is then submitted by the Mayor to the Council of Aldermen of the Commune for Opinion (1).

21. Another copy of the said application is forwarded by the Governor to the Mayor of any Commune situated within a radius of fifty metres from the installation concerned for the Opinion of the relevant Council of Aldermen (2).

22. The Opinions of all Councils of Aldermen concerned (see points 20 and 21) along with the application itself, must be forwarded to the Governor of the Province within thirty days (3).

23. The Governor then forwards all these documents to the "Provincial Advisory Committee" ("Comité consultatif provincial"/"Provinciaal Adviserend Comité") (4) which, within two months of receiving of the documents must forward a reasoned Opinion to the relevant Governor of the Province (5). If it takes longer, it must justify the delay.

(1) See Art. 7(3)(1) of the R.D.63
(2) See Art. 7(3)(2) of the R.D.63
(3) See Art. 7(3)(1) and (3) of the R.D.63
(4) See Art. 7(4)(1) of the R.D.63. The Provincial Advisory Committee is composed as follows (see Art. 7(5) of the R.D.63):

1. the Chief-Inspector, Director of Public Health or its Delegate;
2. the local Health Inspector;
3. the chief-engineer, the Director of the Technical Inspectorate of Labour, the Head of the district concerned or its Delegate;
4. an engineer from the local Technical Inspectorate of Labour;
5. the Chief Medical Adviser, the Director of Health and Labour Medicine, or its Delegate;
6. a representative of the Mines Administration, if the installation concerned comes under the latter's control;
7. a secretary and an assistant secretary appointed jointly by the Minister for Employment and Labour and the Minister for Public Health and the Family.

(5) See Art. 7(4)(6) of the R.D.63
24. Prior to this (1), however, the Provincial Advisory Committee may either require the applicant to supply, or itself request, the opinion of any expert on general or specific aspects of the planned installation with regard to safety and health. Furthermore, the Provincial Advisory Committee may, on the same subject, request the Opinion of the Commission of the European Communities through the Administration of Public Health. The Opinion of the Commission of the EC must, at the request of the Administration of Public Health, compulsorily be sought in the cases specified in Art. 37 of the Euratom Treaty. In any case, before the Opinion of the Provincial Advisory Committee is delivered, the applicant may be called before it and heard (2).

25. The Governor of the Province then forwards the application and the Opinions delivered on it (see points 20, 21 and 23) to the Permanent Delegation of the Provincial Council ("députation permanente du Conseil provincial"/"bestendige deputatie van de provinciale raad") which must take a decision, in the form of a Decree (3) within one month of the forwarding of these documents.

26. If the Opinion of the Provincial Advisory Committee is negative, the Permanent Delegation must refuse the authorization requested (4).

27. On the other hand, if the Opinion is positive, the Permanent Delegation is free to grant or refuse the said authorization. In the latter case, however, the decision must be reasoned (5).

(1) See Art. 7(4)(2) to (6) of the R.D.63
(2) See footnote 2 on page 6 of this document.
(3) See Art. 7(6)(1) and (2) of the R.D.63
(4) See Art. 7(6)(4) of the R.D.63
(5) See Art. 7(6)(5) of the R.D.63
28. The Governor then forwards copies of the Decision of the Permanent Delegation to the following persons (1):

1. the applicant, by registered letter;
2. the Mayor of the Commune where the installation concerned is planned;
3. the Members of the Provincial Advisory Committee.

29. The Mayor of the Commune concerned informs the inhabitants of the Decision taken by means of a notice displayed in the Town Hall - where the public may consult a copy of it - and at the place where the installation is planned (2).

b) National level

30. The parties concerned may introduce an appeal against this decision within fifteen days of the posting of the notice at the place where it is planned to locate the installation (3). Any appeal must be addressed to the King, who forwards it to the Special Commission.

31. Before it delivers its Opinion, the Commission may request the opinion of any experts, pursuant to the procedure laid down for authorizations in respect of Class I installations (see point 11).

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(1) See Art. 7(7) of the R.D.63
(2) See Art. 7(8) of the R.D.63
(3) See Art. 7(9)(1) of the R.D.63
32. If the Opinion of the Special Commission is negative, the appellate authorities, i.e. the Ministry for Employment and Labour, the Ministry for Public Health and the Family, and the Ministry for Economic Affairs, if the installation concerned comes under the control of the Mines Administration (1), must refuse the authorization requested (2).

33. However, if the Opinion of the Special Commission is positive, the competent Ministries are free to grant or refuse the said authorization. In the latter case, however, the decision must be reasoned (3). Whatever the final decision, it must be taken in the form of a Royal Decree (1).

34. Finally, the decision is notified to the Special Commission and to the Governor of the Province, who forwards copies to (4):

1. the applicant, by registered letter;
2. the Mayor of the Commune where the installation concerned is planned;
3. the Members of the Provincial Advisory Committee.

(1) See Art. 7(10(1) of the R.D.63
(2) See Art. 7(10(2) of the R.D.63
(3) See Art. 7(10(3) of the R.D.63
(4) See Art. 7(11) of the R.D.63
3) Authorization for Class III installations (1)

35. Class III contains the following installations (2):

1. installations where radioactive nuclides are used or kept in amounts the total activity of which is contained within the range of the X3 values given in the table classifying radioactive substances (3);
2. installations using fixed appliances producing X-rays and capable of operating at a voltage equal to or lower than 200 kV;
3. installations using portable appliances producing X-rays.

For installations covered by this Class, some procedural steps are to be carried out at regional level (see points 36 to 38), others at national level (see points 39 to 43).

a) Regional level

36. The applicant must, with a view to obtaining an authorization, forward a preliminary declaration in triplicate to the Governor of the Province concerned (4).

37. The Governor then forwards this declaration to the Permanent Delegation of the Council of the Province concerned, which, within 15 days, takes a decision in the form of a Decree (5).

38. The decision is notified by the Governor to the following persons (6):

(1) A schematic description of this procedure is given in Chart III, annexed hereto.
(2) See Art. 3(1)c) of the R.D.63
(3) See footnote 3, page 2, in fine.
(4) See Art. 8(1) of the R.D.63
(5) See Art. 8(3)(1) and (2) of the R.D.63
(6) See Art. 8(4) of the R.D.63
1. the applicant, by registered letter;
2. the Mayor of the Commune where the installation is planned;
3. the chief-engineer, the Director of the Technical Inspectorate of Labour, the Head of the district concerned;
4. the local Medical Inspector of Labour;
5. the local Health Inspector;
6. where appropriate, the chief-engineer, the Director of the Mines, and the Head of the Mines in the district concerned.

If the installation concerned also falls within the definition of higher radioactivity classes (i.e. Class I or/and Class II), the rules on the highest radioactivity class apply regarding the authorization procedure in respect of this installation (see Art. 11(1) of the Royal Decree). Similarly, the rules on Class III apply if the said installation has characteristics of both Class III and Class IV.

With regard to Class III installations operated by the Belgian State or by one of the bodies of public interest, listed in category A of the Act of 16 March 1954 concerning the supervision of certain bodies of public interest, such installations are subject to the following rules: The Minister who is competent in respect of the installation concerned must forward a declaration in triplicate to the Ministry of Public Health and the Family, which is competent to decide in respect of authorizations. The Minister then forwards copies of the Decree to the applicant and to the Minister of Employment and Labour. The Decree may lay down special conditions other than those laid down in the Royal Decree of 28 February 1963, provided the Minister of Employment and Labour gives his prior agreement (see Art. 10(4) of the R.D.63).
b) National level

39. The applicant or any of the persons listed in point 38 may introduce an appeal against this decision to the King, who forwards it to the Special Commission (1).

40. Before it delivers its Opinion, this Commission may request the opinion of any experts, pursuant to the procedure laid down for authorizations in respect of Class I installations (see point 11), the compulsory requirement to consult the Commission of the European Communities not applying in this case (2).

41. If the Opinion of the Special Commission is negative, the appellate authorities, i.e. the Minister for Employment and Labour, the Minister for Public Health and the Family, and the Minister for Economic Affairs if the installation concerned comes under the control of the Mines Administration, must refuse the authorization requested.

42. If the Opinion of the Special Committee is positive, the competent Ministers are free to grant or refuse the said authorization. In the latter case, however, the decision must be reasoned. Whatever the final decision, it must be taken in the form of a Royal Decree.

43. Finally, the decision is notified to the Special Commission and to the Governor of the Province, who forwards copies to the persons listed in point 38 (3).

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(1) See Art. 8(5)(1) and (2) of the R.D.63
(2) See Art. 8(5)(3) of the R.D.63
(3) See Art. 8(6) of the R.D.63
B. AUTHORIZATION FOR OPERATION

44. The authorization granted in respect of an installation falling within any of the classes examined entitles the applicant to construct the installation in accordance with the terms of the authorization granted (1). But, for certain classes, the authorization does not entitle the applicant to put the installation into operation.

45. An authorization for operation is necessary for Class I and Class II installations, whether private or public (2).

46. Both the protection arrangements and the installations falling within these two classes are subject to an authorization procedure by a body approved by the two Ministers concerned (3).

47. So that an installation being authorized may begin operations, the report drawn up by the relevant body must be favourable in its entirety and the commencement of operations formally authorized (4).

(1) See Art. 15(1) of the R.D.63
(2) even if the installations also contain elements covered by Class II or Class IV.
(3) See Art. 15(2) of the R.D.63. For a schematic description of this procedure, see Charts I and II annexed hereto.
(4) See Art. 15(3) of the R.D.63
BELGIUM - Procedure of authorization: Class II.
2. GERMANY

I. LEGISLATIVE SOURCES

1. The foundation for the authorization procedures for the construction and operation of nuclear installations is contained in the Federal Constitution ("Grundgesetz") of 23 May 1949, as amended by the Act of 23 December 1959 (1). Art. 74 (11a) of the Constitution provides that "the production and use of nuclear energy for peaceful purposes, the construction and operation of installations serving such purposes, the protection against hazards arising from the release of nuclear energy or from ionizing radiation, and the disposal of radioactive substances" come under "concurrent legislative competence", i.e. legislative competence in these matters is left with the Länder only insofar as no federal legislation exists. Furthermore, Art. 87 o of the Constitution states that "laws enacted by virtue of (the above mentioned) Art. 74 (11a) may, with the consent of the Federal Council (Bundesrat), provide that they shall be executed by the Länder acting on behalf of the Federal Republic (Bund)".

2. On this basis the Act "on the Peaceful Use of Atomic Energy and Protection Against its Hazards" (Atomic Energy Act") was also adopted on 23 December 1959 (2). This Act defines the basic regulations for the authorization of nuclear installations (Para. 7 (1) and (2)), as well as the regulations for federal and regional authorities in granting these authorizations (Para. 7 (3) and 24). Based on this Atomic Energy Act, an Ordinance was issued on 20 May 1960 (3) "concerning the procedure for authorizing installations under Para. 7 of the Atomic Energy Act" ("Nuclear Installations Ordinance") (4) which defines detailed rules governing the granting of authorizations for the construction and operation of nuclear installations.

(1) See Bundesgesetzblatt (=BGBL) 1959, I, p. 813.
(2) "Gesetz über die friedliche Verwendung der Kernenergie und den Schutz gegen ihre Gefahren (Atomgesetz)". See BGBL 1959, I, p. 814. Amended by Act of 15 March 74 (BGBL I, p. 721). This Act will be hereafter abbreviated as "A.59".
(3) "Verordnung über das Verfahren bei der Genehmigung von Anlagen nach Art. 7 des Atomgesetzes (Atomanlagen-Verordnung)". See BGBL 1960, I, p. 310. This Ordinance will be hereafter abbreviated as "0.60".
II. AUTHORIZATION PROCEDURE FOR NUCLEAR INSTALLATIONS (A.59, Para. 7) (1)

1) Installations subject to the authorization procedure

3. As a general rule, "any person who erects, operates or otherwise has possession of any installation for the purpose of production or fission of nuclear fuel, or for the reprocessing of irradiated nuclear fuel, or who significantly alters such installation or its operation, shall be required to obtain an authorization" (2). There is thus no specific procedure relating to the potential extent of hazard involved with the installations concerned.

4. However, exemptions from the need for authorization (3) may be granted by statutory ordinance to facilitate e.g. scientific research and teaching. Authorization may not be necessary if only small quantities of nuclear fuel are involved, or because of certain provisions hazards are not to be expected and the following objectives of the Atomic Energy Act are met: (a) the prevention of danger to the internal or external security of the Federal Republic arising from the use or the release of nuclear energy (4). (b) the fulfilment of the international obligations of the Federal Republic in the field of nuclear energy and protection against radiation.

2) Description of the authorization procedure

5. The application for authorization generally covers both construction (see points 6 to 21) and operation (see points 22 and 23). But, in practice, the authorization is granted in several parts (partial authorization) - up to twenty in number - e.g. for siting, starting certain constructions, operation, etc. The procedure for the granting of each partial authorization is the same (excepted for the public announcement, see points 9 to 12).

(1) An outline description of this procedure is given in a Chart attached (see Annex I).
(2) Para. 7 (1) of A.59
(3) Para. 10 of A.59
(4) See Para. 10, and 1 (3) and (4) of A.59
A. Authorization for construction

6. In practice, the authorization procedure is carried out both at regional level (Länder see points 7 to 14 and 18) and at the federal level (see points 15 to 17), beginning at the Länder level. While the authorization itself is granted by the Länder, the authorization procedure is under the supervision of the Federal Minister of the Interior, who at any time can give directives to the regional licensing authority (1).

   a) Regional level

7. The application for an authorization is made to the responsible authority of the Land in which the installation is to be constructed (2). This authority, called "Supreme Land Authority" (Oberste Landesbehörde), is designated by the respective Land Government (3).

8. The application must contain the documents necessary for the safety evaluation (4), including those involving a business or technical secret (5). The licensing authority appoints experts (6), and ascertains the

(1) See Constitution Art. 85 (3) and (4)
(2) See Para. 1 (1) of 0.60
(3) See Para. 24 (2) of A.59. These authorities will be called hereafter "licensing authorities". See in Annex II, the list of these authorities in the German Länder, namely in Baden-Württemberg, Bayern, Berlin, Bremen, Hamburg, Hessen, Niedersachsen, Nordrhein-Westfalen, Rheinland-Pfalz, Saarland and Schleswig-Holstein.
(4) See Para. 1 (2) of 0.60. If the application is initially made for a licence only for the erection of the installation, or if the application is otherwise limited (application for a partial licence), the licensing authority may permit that only such definitive data are submitted as are necessary with regard to the object of the partial licence for which the application is made (see also Para. 1 (3) of 0.60).
(5) See Para. 1 (5) of 0.60
(6) See Para. 20 of A.59. These experts are generally appointed from one of the eleven regional "Technische Überwachungs-Vereine" (TUV = Technical Inspectors) or from the "Institut für Reaktorsicherheit" of the TUV (IRS - Institute for Reactor Safety). The TUV and the IRS are private consultancy associations, supervising technical safety measures at all installations requiring authorization and supervision. They are officially recognized by the State as authorities in certain specialized matters and are under government supervision. The TUV and IRS experts are employees, but independent of their employers in the formulation of professional opinions.
completeness of these documents. If the documents are incomplete, this authority requests the applicant to complement them within an appropriate period of time, or, in the case of documents involving a business or technical secret, to prove that transcribing the content of these documents in those available for future public inspection (see in particular point 11) is not possible without disclosing the said secret (see footnote (5) page 3). If the applicant does not comply with such a request, the application is rejected (see footnote (5) page 3).

9. If the documents are complete, the licensing authority announces the project in its official bulletin and in a daily newspaper of substantial circulation in the area where the installation is to be located. Reference is made to this announcement in the official federal bulletin "Bundesanzeiger" (1).

10. Only installations having already been subject to the procedure in item 9 are dispensed from this procedure of publication, provided that a renewed public announcement and availability for public inspection would not reveal any additional fact which may be relevant to the interests of third persons (2).

11. Within one month, from the day following the issue of the official bulletin (see point 9), all persons interested may inspect the documents available and present objections, if any, to the agency specified in the said announcement (3). However, this time-limit does not apply to objections based on special titles under civil law, which are to be referred to the competent civil courts (4).

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(1) See Para. 2 (1) of 0.60
(2) See Para. 2 (4) of 0.60
(3) See Para. 2 (3) and (2) subpara 2, and Para. 3 (1) of 0.60
(4) See Para. 3 (2) of 0.60
12. The latter objections are then discussed orally during an enquiry conducted by the licensing authority with the assistance of the experts appointed (see point 8), the time and place of which are determined in the above-mentioned announcement (1).

13. On the basis of the information available — and in particular of the above discussion — the said experts deliver a reasoned opinion.

14. The licensing authority must, in addition to the publication and enquiry described above, request the opinion of any authority of the Federal Republic and of the Länder, the rural district authorities, as well as other regional bodies whose jurisdiction is concerned (2), such as: planning authorities, building authorities, power authorities, authorities responsible for enforcing water laws in the Länder, nature conservancy authorities, etc.

b) National level

15. Meanwhile, as soon as the licensing authority has received the application for the authorization (see point 7), the application is then forwarded to the Minister of the Interior. The subsequent procedure at the national level is not mandatory, but is common practice for nuclear power plants. For research reactors, the participation of the Minister of the Interior depends upon the nature of specific problems.

16. This Minister then requests the opinion ("a recommendation") of the Reactor Safety Commission ("Reaktorsicherheitskommission" = RSK) (3), and, possibly, of other experts.

(1) See Para. 2 (2) subpara 3 and Para. 3 (2) of 0.60
(2) See Para. 7 (3) of A.59
(3) RSK's tasks are — exclusively — to advise the Minister in all questions of safety of atomic installations. Its opinion is intended to be given principally on new and generic questions which are of fundamental importance. The RSK is composed normally of eighteen independent members, representing the following sectors: reactor operation, machine and apparatus construction, thermodynamics, process engineering, materials, technology, construction engineering, methodology and regulation technique, reactor physics, electrical engineering, reactor chemistry, radiation protection, environmental protection, radiation biology and radiation medicine.
Moreover, the Federal Minister of the Interior may request the advice of other federal authorities whose jurisdiction is not directly concerned, e.g. the Federal Ministry of Youth, Family and Health, the Federal Ministry of Defence, etc.

17. After having examining the above opinions - and, if he so desires, the licensing authority's files - this Minister can, if deemed necessary, issue a directive to the licensing authority. This directive is binding upon the terms of the final decision.

c) Decision

18. On the basis of the conclusions arising from objections raised by third parties (see points 11 and 12), and on the basis of the opinions of the other Land or Federal authorities (see point 14) and of the experts consulted (see points 13 and 16), as well as of the possible directive issued by the Minister of the Interior (see point 17), the licensing authority of the Land concerned makes a final decision and notifies the applicant and the persons who have raised the objections (1) of this decision.

19. The granting of any authorization is possible only if the following prerequisites are met (2):

(a) There are no facts known giving rise to any doubts as to the reliability of the applicant and of the persons responsible for the erection, management and control of the operation of the installation, and the said persons responsible for erection, management and control possess the requisite expert knowledge (3);

(b) Every precaution is taken which is necessary in the light of existing scientific knowledge and technology to prevent damage resulting from the construction and operation of the installation (4);

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(1) See Para. 4 (2) of 0.60
(2) See, for conditions a to e, A.69, Para. 7 (2) and, for condition f, Para. 4 (1) of 0.60
(3) In practice, this (sub)condition is examined by the licensing authority with more or less extensive assistance from the experts
(4) This (sub)condition is usually examined by the experts and reported to the licensing authority.
(c) The necessary financial security is provided to cover all legal liability to pay compensation for damage (1);
(d) All necessary protection is provided against interference or other intervention by third persons (see footnote (3) page 6);
(e) There are no overriding public interests against the particular choice of site for the installation (see footnote (3) page 6), especially as regards contamination of water, air and soil (see footnote (4) page 6);
(f) In addition to the Atomic Energy Act, the other relevant provisions of public law, in particular the laws relating to building and water, are observed (1).

20. After the final decision is taken, the applicant, as well as the persons who have raised objections, may appeal to an administrative court.

21. With the granting of the successive partial licences the written procedure is repeated several times until the construction is completed, with the exception of the official publication of the application for authorization and the submission of the documents for public inspection (see points 9 to 12).

3. Authorization for operation

22. The application for authorization for operation follows on the procedure described in points 6 to 22 (with the exception mentioned at point 21). The specific documents to be submitted to the licensing authority with this application are: a definitive safety report, an initial charging and start-up programme, a document giving specifications of operating arrangements, including protective and safeguard measures for personnel, and a programme for the regular testing of those parts of the installation important for safety. (2)

(1) In practice, this condition is examined by the licensing authority itself.
(2) See Para. 1 (2) of 0.60
In practice, the licensing authority finally grants a licence for permanent operation of the nuclear power station when the start-up trials and the test operation run have given no cause for doubts regarding the safety of the installation.
**ANNEX II**

**List of the licensing authorities**

("Oberste Landesbehörden") (1)

<table>
<thead>
<tr>
<th>Land</th>
<th>Oberste Landesbehörden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>Minister of Economics, in agreement with the Minister of Labour and Social Affairs and the Minister of the Interior.</td>
</tr>
<tr>
<td>Bayern</td>
<td>Minister of State for Development and Environment, in agreement with the Minister for Labour and Social Affairs, and, with respect to energy installations, with the Minister for Economics and Transport.</td>
</tr>
<tr>
<td>Berlin</td>
<td>Senator for Economics.</td>
</tr>
<tr>
<td>Hamburg</td>
<td>Labour and Social Departments.</td>
</tr>
<tr>
<td>Hessen</td>
<td>Minister of Economics and Technology, in agreement with the Minister for Labour, Social Welfare and Health and the Minister of the Interior.</td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>Minister for Social Affairs. With respect to the mines supervision, in agreement with the Minister of Economics and Transport as highest authority for mines supervision.</td>
</tr>
<tr>
<td>Nordrhein-Westfalen</td>
<td>Minister for Labour and Social Welfare together with the Minister for Economics, the Middle Classes and Transport.</td>
</tr>
<tr>
<td>Rheinland-Pfalz</td>
<td>Minister of Economics and Transport, in agreement with the Minister for Social Welfare.</td>
</tr>
</tbody>
</table>

(1) The authorizations concerned apply to the installations defined in Art. 7 (1) of A.59.
<table>
<thead>
<tr>
<th>Land</th>
<th>Oberste Landesbehörden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saarland</td>
<td>Minister of Economics, Transport and Agriculture, in agreement with the Minister of Labour, Social Welfare and Health.</td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>Minister of Labour, Social Welfare and Refugees, together with the Minister of Economics and Transport.</td>
</tr>
</tbody>
</table>
The present Danish legislation on nuclear installations - including that relating to the authorization procedure for the construction and operation of these installations - is under review. Moreover, the Danish Parliament (Folketing) has reserved for itself the decision on the introduction of nuclear power into Denmark. For these reasons, a detailed description of the latter authorization procedure as it is presently in force does not seem to be appropriate for the time being (1).

(1) For a brief description of this procedure, see "Nuclear Legislation. Regulations governing nuclear installations and radiation protection". OECD-NEA 1972.
4. FRANCE

I. LEGISLATIVE SOURCES

1. The first law laid down to protect the population against dangerous, unhealthy or inconvenient installations - which is still applied to certain nuclear installations - was the Act of December 19, 1917 (1). In particular, this Act makes the opening of certain of these installations conditional upon the authorization of the administrative authority (Art. 4). It has been amended several times since that date (2), in particular by the Act of August 2, 1961 (3), providing that Decrees of the Council of State are to lay down the conditions in which nuclear installations shall be set up and operate (Art. 8).

2. Based in particular on this latter Act, the Council of State in fact adopted a Decree on December 11, 1963 (4), which set up a special authorization régime for nuclear installations having in their possession substances with the highest activities. The following paragraphs are intended precisely to describe the authorization procedure both for the construction (see points 3 to 17) and for the operation (see points 18 and 19) of these installations.

II. AUTHORIZATION PROCEDURE ("basic nuclear installations") (5)

A. Authorization for construction

3. The Decree of December 11, 1963 defines seven types of nuclear installations - called "basic nuclear installations" (6). As regards the nuclear installations not falling under the definitions laid down by this Decree, the authorization procedure applicable to them - not dealt with in the present report - is that of the Act of December 19, 1917, which defines three Classes of installations (see point 1).

(1) "Loi du 19 décembre 1917 relative aux établissements dangereux, insalubres ou incommodes" (Journal Officiel of 21.12.1917),
(4) "Décret n° 63-1228 du 11 décembre 1963 relatif aux installations nucléaires" (J.O. of 14.12.1963, p.11092), hereafter abbreviated to "D.63"
(5) A schematic description of this procedure is given in the Chart annexed hereto
4. D.63 covers the following installations (1):

1. Nuclear reactors and the associated installations needed for their operation except for guaranteed zero power reactors or those forming part of a ship;
2. Particle accelerators with an energy of over 300 MeV (million electron volts) (2);
3. Plants for the preparation, fabrication and conversion of radioactive substances or fissile materials whose respective activity and quantity are higher than certain limits fixed by the Order of December 6, 1966 (3);
4. Plants for the isotopic separation of uranium or plutonium;
5. Plants for the processing of irradiated uranium, plutonium or thorium;
6. Plants for the processing of radioactives wastes;
7. Facilities for the storage, deposit or use of radioactive substances, including wastes, or fissile materials whose respective activity and quantity attain or exceed certain limits fixed by the Order of January 25, 1967 (4).

5. No special procedural rule — e.g. exemption from authorization — is provided according to the nature of the owner of the installation concerned, either private or public, civil or military (5).

6. The list of the installations enumerated above is not definitive. It is in fact "drawn up and kept up to date by the Minister responsible for atomic energy" (6).

7. For all installations covered by D.63, most of the procedural steps, including the main ones, are to be carried out at national level (see points 8, 9, 16 to 18).

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(1) A schematic description of this procedure is given in the Chart annexed hereto
(2) See Order of 16.9.1965, Art.1
(3) See Note 6 p. 1
(4) See Note 6 p. 1
(5) See Art. 1 of the D.63. But an exception is made, in any case, for installations existing prior to the issue of D.63 which were declared to the Minister responsible for atomic energy (see Art.14 of the D.63), and installations connected with national defence and classified as secret by the Prime Minister on the proposal of the Minister for the Armed Forces and the Minister for Atomic Energy.
(6) See Art. 2(2) of the D.63
1. National level (first stage)

8. The application for authorization must be forwarded by the applicant concerned to the Minister responsible for atomic energy and, where applicable, to the Minister under whom the relevant installation comes (1).

9. The Minister responsible for Atomic Energy then informs the Ministers for the Interior, for Equipment and for Public Health and Population (2) of this application.

2. Regional level

10. Under two alternative conditions, the said application is forwarded to the Préfet of the Département in which the installation is to be sited for a local enquiry (3):

(a) if the installation concerned is located outside a periphery containing one or more nuclear installations regularly set up;
(b) or if the installation concerned has not yet been declared to be of public interest.

11. The enquiry - if any - is conducted by an Investigating Officer appointed by Order of the Préfet (4). This Officer informs the public and consults local communities under the same general conditions as are laid down for the enquiry regarding classified establishments (5).

12. More precisely, notice of the enquiry is given by the Mayor of the Commune where the installation concerned is to be located, at the operator's expense, by posters, stating in particular the name of the Investigating Officer to conduct this enquiry (6).

13. The Municipal Council must, meanwhile, deliver its opinion on the application, and this in any case within one month after receipt of it. If this time-limit is not respected, the opinion is no longer taken into account (7).

(1) See Art. 3(2) of the D.63
(2) Ibidem
(3) See Art. 3(3) of the D.63
(5) Ibidem note (4) and point 1
(6) See Art. 8 of the Decree No. 64-303 of April 1, 1964 (J.O. 8.4.1964)
(7) See Ibidem Art. 9
The Investigating Officer's conclusions are transmitted to the Préfet who, after hearing the opinions of the public departments concerned, forwards them, with his own views, to the Minister responsible for atomic energy, and this within one month from the receipt by the Préfet of the conclusions of the Officer (1).

3. National_level (second stage)

Whether this local enquiry is carried out or not, the application concerned is in any case subject to a technical study made on behalf of the Minister responsible for atomic energy, either by the specialist services of the Atomic Energy Commission (2) or by a group of experts specially set up for the purpose (see note (4) p. 3).

The Minister for Atomic Energy then forwards the file concerned to the Interministerial Committee for basic nuclear installations (3). The Committee as a whole - or possibly only its permanent section for cases presenting no special difficulty (4) - gives its opinion within three months from the lodging of the application concerned (5).

(1) See note (5) page 3
(2) The Atomic Energy Commission ("Commissariat à l'énergie atomique") is a public undertaking under the authority and control of the Minister for Industrial and Scientific Development; it is responsible, in particular, for "proposing measures to ensure the protection of persons and property against the destructive effects of atomic energy" (Order No. 45-2563 of 18.101045, Art.1). Decree No. 73-278 of March 13, 1973 created a Higher Council for Nuclear Safety ("Conseil supérieur de la sûreté nucléaire") and a Central Department for Safety of nuclear installations ("Service central de sûreté des installations nucléaires") (J.O. of 15.3.1973). Although not affecting the technical responsibilities of the Atomic Energy Commission, these new bodies have important supervisory and advisory functions (See Annex 2).
(3) The Interministerial Committee for basic nuclear installations ("Commission interministérielle des installations nucléaires de base") is composed as follows (see Art.7 of the D.63) :
- President : a Member of the Council of State, having at least the function of adviser;
- Vice-President : the High-Commissioner for Nuclear Energy or his representative;
- a representative of the Minister for Nuclear Energy;
- two representatives of the Minister for the Interior;
- a representative of the Ministers for the Armed Forces, Finance and Economic Affairs, Public Education, Public Works and Transport;
- two representatives of the Minister of Industry;
- a representative each of the Ministers of Agriculture and of Labour;
- two representatives of the Minister for Public Health and Population;
- a representative of the Minister of Equipment;
- two representatives of the Atomic Energy Commission;
- a representative each of the National Center for Scientific Research (C.N.R.S.), Electricité de France, the National Institute of Hygiene and the National Institute of agronomic research;
- three experts in the nuclear field
(4) See Art. 10(1) of D.63
(5) See Art. 8 (1) of D.63
17. The file is then forwarded to the Minister for Public Health and Population for an opinion – which has to be favourable for the authorization to be granted. Before such granting, this Minister may request the opinion of the appropriate section of the Higher Council for Public Health, which must be delivered within one month (1).

18. The authorization to set up an installation is finally granted by Decree issued upon a report from the Minister responsible for atomic energy, and, where applicable, the Minister under whom the installation comes (1).

19. The whole procedure described from point 8 to 18 must be repeated in the following cases (2):

1. If the operator wants another basic nuclear installation to be added to that in respect of which an authorization has already been granted;

2. If ownership of any installation having already been granted an authorization is changed;

3. If the place of such installation is changed;

4. If such installation has to be modified so that the prescriptions previously imposed are not respected;

5. If, because of a fire, an explosion or any other accident occurring in a basic nuclear installation, this is put out of action or stopped for more than two years.

B. Authorization for operation

20. In the case of a reactor, the applicant submits a safety report to the Minister responsible for atomic energy, together with reports covering the control systems installed to ensure compliance with the special conditions of the authorization, the checks made regarding provisions contained in the regulations and the results of the running tests; the Minister is also provided with the general operating instructions.

21. The experts examine the safety of the installation and the various reports are then approved by the said Minister.

(1) See Art. 3(5) of D.63
(2) See Art. 6 of D. 63.
Functions of the Higher Council for Nuclear Safety and of the Central Department for the Safety of nuclear installations

A. Functions of the Higher Council for Nuclear Safety (1)

Art. 1 of Decree No. 73-278 of March 13, 1973:
"The general mission vested in the Higher Council for Nuclear Safety shall cover all questions under the responsibility of the Minister for Industrial and Scientific Development and relating to the safety of nuclear installations, defined as the whole body of technical provisions imposed at the stage of construction and subsequently of operation to ensure the normal functioning of these installations, prevent accidents and limit the effects thereof.

In this field, this Council:
- issues any recommendations it considers useful to increase the efficiency of the global action carried out in the field of nuclear safety;
- may be consulted on projects for general provisions, of either a legislative or regulatory character, concerning nuclear safety;
- assesses the global results of the action carried out and notably that of the Central Department for safety of nuclear installations provided by Article 5;

(1) The composition of this Council shall be the following:
- the Secretary-General for Energy;
- the High Commissioner for Atomic Energy;
- one Member of the National Assembly;
- one Member of the Senate;
- the State Advisor (Conseiller d'Etat), President of the Interministerial Committee for basic nuclear installations;
- a Representative of the Minister for the Interior (National Civil Protection Service);
- a Representative of the Ministre délégué attached to the Prime Minister's office, responsible for the protection of Nature and the Environment;
- the Head of Central Department for Protection against ionizing radiation within the Ministry for Public Health;
- the Director of the Budget within the Ministry for Economy and Finance or his representative;
- the Director for Gas, Electricity and Coal with the Ministry for Industrial and Scientific Development;
- the Director for Technology, Industrial Environment and mines with the Ministry for Industrial and Scientific Development;
- the Director General of Electricité de France or his representative;
- five leading personalities chosen for their qualifications in the technical, economic or social field.

The Directeur délégué of the Atomic Energy Commission responsible for protection and nuclear safety, and as the head of the Central Department for the Safety of Nuclear Installations shall attend the meetings of the Higher Council for "Nuclear Safety".
examines the motivated request relating to facts concerning nuclear safety and affecting the general interest, and notably the industrial development of nuclear energy;

- may be consulted by the Minister (for Industrial and Scientific Development) on any question falling within its province;

- the Council establishes an annual report on the whole of its activities and submits it to the Minister.

With the agreement of the Minister, the opinions of the Council may be made public". 
B. Functions of the Central Department for the Safety of Nuclear Installations

This Department, set up within the Ministry for Industrial and Scientific Development, has, as a main function, to prepare and to put into operation all technical actions of the Department concerning the safety of nuclear installations, in particular (Art. 5 of the Decree No. 73-278 of March 13, 1973):

to elaborate the technical rules concerning the safety of nuclear installations and to follow the implementation thereof;
to conduct the inspection of the installations, to examine and to give an opinion on the programmes of the Nuclear Energy Commission, to follow, where necessary, the research work of the public establishment, to propose and organize the supply of information to the public and to examine the proposals of the Nuclear Energy Commission with respect to safety.
5. IRELAND

The sole law relating to Nuclear Energy in Ireland is the Nuclear Energy (An Bord Phuinnm Ínícheil) Act 1971 (1). This Act provides for the establishment of a Nuclear Energy Board, defines the functions of the Board and deals with other relevant matters.

Article 4 of the Act defines the General Functions of the Nuclear Energy Board (2) (3) as

1) to advise the Government, the Minister (for Transport and Power) and any other Minister of State on nuclear energy and matter connected therewith;
2) to keep itself informed of developments in nuclear energy and matters connected therewith, with particular reference to the implications for the State of such developments.

The particular functions of the Nuclear Energy Board are listed in Article 5 of the Act and include (4)

a) to advise the Government or, with the consent of the Minister, any other person or group of persons engaged in training or research in nuclear services on the acquisition of nuclear reactors or radioactive devices for training or research purposes and, in the event of the acquisition of such reactors or devices on all aspects of their location, installation, operation and supervision.

(1) In Irish: An tacht um Phuinnm Ínícheil (An Bord Phuinnm Ínícheil), 1971.
(2) The Nuclear Energy Board is defined as "a body corporate with perpetual succession and an official seal (which is judicially noted) and power to sue and be sued in its corporate name and to acquire, hold and dispose of land" (Art.3(2) of the Nuclear Energy Act).
(3) Ibidem, Art. 4(1)
(4) See Art. 5(1)(a), (b) and (c).
b) to advise the Minister on proposals for the construction of nuclear power stations and on all aspects of the installation, operation and supervision of such stations.

c) to prepare draft safety codes and regulations dealing with fissile fuel or other radioactive substances or devices and irradiating apparatus, taking into account relevant standards recommended by international bodies dealing with nuclear energy.

In addition, the Minister may from time to time by order assign to the Nuclear Energy Board the following functions (1)

a) the making of arrangements for the supply of fissile fuel or such other radioactive substances or devices as may be specified in the order for use in the State, and where so agreed by the Minister after agreement with the Minister for Foreign Affairs, the conclusion of agreements with the appropriate bodies for this purpose.

b) the making of arrangements to ensure the safe custody of fissile fuel and the disposal of such radioactive waste products as may be specified in the order.

c) the making of arrangements to ensure the safe operation of nuclear power reactors in so far as the safety of the public (whether in the State or elsewhere) is likely to be affected by such operation.

d) the making of arrangements to ensure the safe operation of nuclear training reactors or radioactive devices.

e) the making of arrangements to ensure compliance with any safety codes established by regulations made under Health Acts or Factories Acts relating to fissile fuel, radioactive substances or devices or irradiating apparatus.

(1) See Art. 5(2) (a), (b), (c), (d) and (e).

Article 6(1) of the Act provides that the Minister may, after consultation with other interested Ministers, by order regulate, restrict or prohibit (same under licence issued by him or by the Nuclear Energy Board as his agent) the custody, use, manufacture, importation, distribution, transportation, exportation or other disposal of fissile fuel, or of such other radioactive substances or devices, or irradiating apparatus.

The Minister has appointed the members of the Board and has made an order making the Act operative from 30th November 1973. No other order has, as yet, been made by the Minister under the Act. Consequently the Board's present functions are generally of an advisory nature.
6. ITALY

I. LEGISLATIVE SOURCES

1. The skeleton law providing the foundations for successive
laws laying down in particular the authorization procedure
for the construction and operation of nuclear installations
is Act No 1860 of 31 December 1962 concerning the Peaceful
Uses of Nuclear Energy (1). In particular, Art. 14 of this
Act reads: "By a Decree of the President of the Republic
taken on proposal of the Prime Minister, in agreement with
the Ministers concerned and the Minister for Industry and
Trade, after consultation with the National Committee for
Nuclear Energy (CNEN) (2) (...), will be adopted the pro-
visions for the purpose of ensuring the safety of installa-
tions and the protection of workers and the population against
the hazards of ionizing radiations resulting both from the
working of the installations and from operations involving
nuclear materials and the use of radioisotopes (...)".

2. Pursuant to this skeleton law, Decree No 185 of the President
of the Republic on "the safety of installations and the health
protection of workers and the population against the hazards
of ionizing radiations resulting from peaceful uses of nuclear
energy" (3) was adopted on 13 February 1964. This Decree lays
down, in particular, the rules governing the granting of
authorizations for the construction (see points 5 to 23) and
operation (see points 24 to 32) of nuclear installations.

(1) See Gazzetta Ufficiale (G.U.) of 1963, No 27, p. 493. For the
purposes of this document, this Act will be referred to as the
"A.62". This Act was most recently amended by decree No 1704
of the President of the Republic (G.U. No 112 of 9.5.1966).

(2) Among the functions of the CNEN, set up by the Act of 11 August
1960, No 933 (G.U. of 1963, No 218, p. 3418), is that of ensuring
the technical control and supervision of the construction and
operation of nuclear installations (Art. 2(3) of this latter
Act). This Act No 933 was amended by the Act of 15.12.1971,
No 1240 (see G.U. No 20 of 24.1.1972) except for articles 12,
13,14,15,16, which remain unchanged. As to the concrete role of
the CNEN within the authorization procedure for the construction
and operation of nuclear installations, see in particular
points 7, 12, 13, 24-26, 29.

(3) See ordinary supplement of the G.U. No 95 of 16.4.1964. For the
purposes of this document, this Decree will be referred to
as the "D.64".
II. AUTHORIZATION PROCEDURE

3. In principle, any "installations producing and using nuclear energy for industrial purposes, as well as installations for processing and use of minerals, raw substances, special fissile substances, enriched uranium and radioactive substances" are subject to authorization for their construction and operation (1).

4. However, the construction of installations for generating electricity is subject to special authorization (1) (see points 17 and 18), as is that of installations of institutes, universities and schools intended exclusively for educational purposes (see point 19), and of ships (see point 20), and research reactors of less than 100 kW (th) (see point 21). A special procedure is also applied for installations in which the use of radioactivity gives rise to hazards for the environment outside these installations also, or in which total radioactivity is particularly high (see points 22-23).

A. Authorization for construction

1. General procedure (2)

5. The application for authorization must be forwarded both to the Ministry for Industry and Trade and to the CNEN (3). This application is accompanied by a preliminary design of the installation concerned and its siting - containing in particular a preliminary study on the radioactive waste disposal arrangements - and a preliminary safety report indicating the safety and protection measures envisaged (4).

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(1) See Art. 6(1) of the A.62
(2) This procedure applies to construction of nuclear reactors, nuclear power plants, nuclear research plants in general, nuclear plants for processing of irradiated fuel, plants for preparation and production of special fissile substances and nuclear fuel (see Art. 37(1) of the D.64).
(3) See Art. 37(1) of the D.64
(4) See Art. 37(1) a) and b) of the D.64
6. If necessary, the CNEN may request of the applicant further documents considered as necessary to the examination of the file (1).

   a) CNEN's technical assessment

7. On the basis of the documents listed at points 5 and 6, the CNEN, after a technical enquiry, drafts a technical report containing its opinion on the site proposed, and on the characteristics of the installation concerned as they result from the preliminary design. Furthermore, this report must indicate all elements useful for a preliminary evaluation of the installation and its operation from the point of view of nuclear safety and health protection (2). The CNEN's report must also include a critical appraisal of the preliminary safety report and the preliminary study on the disposal of radioactive waste (3).

   b) Ministries' Opinions

8. The CNEN then forwards this technical report to the Ministry for Industry and Trade.

9. The Ministry for Industry and Trade in its turn transmits the said report to the respective Ministries for the Interior, Labour and Social Security, Health, and to the other Ministries concerned (4).

10. All Ministries listed above may, if necessary, request of the CNEN further information and data necessary for complete assessment of the siting and the preliminary design concerned (5).

11. Within sixty days from reception of the technical report, all these Ministries must forward to the CNEN their respective Opinions on the preliminary design and on the siting of the installation (6).

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(1) See Art. 39(2) of the D.64
(2) See Art. 39(1) of the D.64
(3) See Art. 39(3) of the D.64
(4) See Art. 40(1) of the D.64
(5) See Art. 40(2) of the D.64
(6) See Art. 40(3) of the D.64
c) CNEN's Opinion

12. On the basis of the latter opinions, the so-called "Technical Commission" of the CNEN (1) issues a final technical Opinion (2).

13. Based in its turn on this latter Opinion, the CNEN forwards its own Opinion to the Ministry for Industry and Trade, accompanied by the respective Opinions - if any - of the Ministries listed at point 9 (3).

d) Final decision

14. The authorization for construction is delivered in the form of a Decree by the Minister for Industry and Trade (4).

15. But, before starting the construction proper of the installation concerned, the detailed projects of those constituent parts of this installation considered by the CNEN as relevant as to nuclear safety and health protection on the basis of

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(1) More precisely, this Commission is called "Technical Commission for nuclear safety and health protection against ionizing radiations" ("Commissione tecnica per la sicurezza nucleare e la protezione sanitaria dalle radiazioni ionizzanti"). This Commission, set up with the CNEN, is appointed to deliver its technical Opinion on the technical problems concerning nuclear safety and protection of workers and the population against the risks resulting from ionizing radiations, in the cases provided for by D.64 (see Art. 12(1) of D.64) and in particular in the case of authorizations for construction. This Commission is composed of experts in problems of nuclear safety, health protection against ionizing radiations, or fire prevention (see Art. 11(2) of D.64).

(2) See Art. 41(1) of the D.64

(3) See Art. 41(2) of the D.64

(4) See Art. 6(1) of the A.62
the documents listed at point 5, have to be forwarded by
the applicant to the CNEN and approved by it, after con­
sultation of its Technical Commission (1). But, as regards
the construction of the installation projected for the dis­
posal of radioactive waste, the CNEN cannot approve this, if
the project has not been notified to the Commission of the
European Communities (2).

16. During the construction of any one of these installations,
the CNEN - as well as any competent Government Department -
may inspect it to ascertain that, from the technical point of
view, such construction complies with the project submitted
to it (3).

2) Special procedures

a) Installations for the generation of electricity

17. The construction of installations for the generation of
electricity is made conditional - instead to the authorization
described as from point 5 et seq. - to a "clearance certificate"
("nulla osta") from the Minister for Industry and Trade, and
this under the point of view of nuclear safety and health
protection (4).

(1) See Art. 42(1) of the D.64
(2) See Art. 42(2) of the D.64
(3) See Art. 70 of the A.62; Art. 13 and 14 of the D.64
(4) See Art. 38(1) of the D.64. With respect to the other aspects
of the régime of authorization relating to nuclear installations
for the generation of electricity, the provisions of D.64 have
to be coordinated with the Act of 6 December 1962, No 1643 (on
the setting up of the ENEL) which reserved to the latter insti­
tution the production of electric energy - including that
generated by nuclear installations.
18. This nihil obstat is granted according to the same procedure as described in point 5 et seq. This procedure thus also requires - inter alia - the Opinion of the CNEN (see points 12 and 13) (1).

b) Installations for education

19. Nuclear installations intended exclusively for educational purposes in scientific institutes, universities and schools may be granted a special authorization by Decree of the Minister for Industry and Trade, issued in agreement with the Minister for Education and after consulting the CNEN (2).

c) Installations for ships

20. As regards the nuclear installations to be built into ships, the authorization is granted by Decree of the Minister for Industry and Trade, issued in agreement with the Minister for the Merchant Marine and after consultation of the CNEN (3).

d) Research reactors of 100 kW (th) or less

21. For these reactors, the authorization - or the nihil obstat - is granted according to the procedure described in points 5 to 18 - except for the CNEN's technical assessment (point 7) and the Ministries' Opinions (see points 8 to 11) (4).

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(1) See Art. 38(2) of the D.64. This same procedure is also applicable to any installations constructed and operated by State administrations (see Art. 38(3) of the D.64).
(2) See Art. 11 of the A.62
(3) See Art. 12(1) of the A.62
(4) See Art. 52(1) and (2) of the D.64
e) Other installations

22. The construction of installations not considered by the provisions above as being intended for industrial purposes or scientific research, but in which the use of radioactivity gives rise to hazards for the environment outside the installations also, or in which total radioactivity is particularly high, requires an authorization, which is issued by the Minister for Industry and Trade in agreement with the respective Ministers for the Interior, Labour and Social Security, and Health, after consulting the CNEN (1).

23. A Decree of the Minister for Industry and Trade, issued in agreement with the Ministers for the Interior, Labour and Social Security, and Health, after consulting the Interministerial Council for Consultation and Coordination (2) and the CNEN, is to define - but no provision has yet been adopted on the subject - the installations belonging to this category on the basis of their technical characteristics and the level and concentration of radioactivity produced in them.

(1) See Art. 55(1) of the D.64
(2) This Council ("Consiglio interministeriale di coordinamento e consultazione") is mainly responsible for co-ordination, from the administrative point of view, of the activities of the different Government Departments responsible for the application of D.64 (see Art. 10(6) of D.64).
B. Authorization for operation

1) General procedure (1)

a) Tests

24. Before application for operation of the installation concerned - and this must be done for each stage of operation - the parts involved must undergo determined non-nuclear and nuclear tests under the CNEN's control.

25. Non-nuclear tests are those effected before fuel charging and, in the case of installations processing irradiated fuel, the tests previous to the immission of such fuel. These tests are to be carried out in accordance with a programme approved by the CNEN, or, for tests considered by the CNEN as relevant for safety, after prior CNEN authorization for these specific tests (2). After termination of the tests concerned, a report must be drawn up by the applicant, on the basis of which the CNEN delivers - if it so decides - certificates stating that from the point of view of health and safety the installation is ready to be loaded or immitted with nuclear fuel (3).

26. As regards nuclear tests, these can only be undertaken after CNEN approval of the general programme of such tests and a special authorization for each one (4), on the basis of a series of documents forwarded to the CNEN by the applicant (5). These tests - even those already authorized - cannot be initiated before the approval of the general programme, which is made conditional on the agreement of the Ministry for the Interior as regards the safety plans applicable in case of emergency, and after consultation of the Technical Commission (6). After termination of each test, a report must be drawn up by the

(1) This procedure applies to operation of nuclear reactors, nuclear power plants, nuclear research plants in general, nuclear plants for processing of irradiated fuel, plants for preparation and production of special fissile substances and nuclear fuel (see Art. 43(1) of the D.64).
(2) See Art. 44(2) of the D.64
(3) See Art. 44(5) of the D.64
(4) See Art. 45(1) of the D.64
(5) See Art. 45(2) of the D.64
(6) See Art. 45(4) and (7) of the D.64
applicant as well as a report on the procedures by which each nuclear test has been carried out and on the result of the latter. These documents have to be forwarded to the CNEN, which, in case of favourable assessment, issues the respective certificates concerning the result of each series of tests made (1).

b) Application for authorization

27. The application for operation is to be submitted, for each stage of operation (2), to the Minister for Industry and Trade (3) as well as to the CNEN (3).

28. The application concerned is to be accompanied by the certificates concerning the tests described above (see points 24 to 26), as well as by the proof that, from the characteristics of the installation concerned, a stage of operation which is secure within determined limits and conditions can be predicted (3).

c) CNEN's Opinion

29. The CNEN examines the file transmitted by the applicant, consults the Technical Commission and then forwards its Opinion to the Minister for Industry and Trade (4).

d) Final Decision

30. The Minister for Industry and Trade takes a final decision, in the form of a Decree (5), and this on the specific stage of operation which was requested by the applicant. If the

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(1) See Art. 46(1) to (3) of the D.64
(2) See Art. 51(1) of the D.64
(3) See Art. 51(2) of the D.64
(4) See Art. 51(3) of the D.64
(5) See Art. 51(4) of the D.64 and Art. 8(1) of the A.62
CNEN has formulated special prescriptions in its Opinion, these must be taken into account in the said Decree (1).

31. Any further stage of operation must be subject to a similar decision and the procedure described in points 24 to 30 must thus be repeated.

2) Special procedures

32. The conditions of operation of installations intended respectively for electricity generation, for education, for ships, for research reactors of 100 kW (th) or less and for the "other installations" mentioned at points 22 and 23, are laid down in the respective Decrees permitting their construction.

(1) See Art. 51(4) of the D.64
This Chart 1(b) describes the detailed procedure for approval of the detailed projects of the relevant parts of the installation concerned (see also points A5).
( Solely for commercial )

d) Installations for the generation of electricity (see pts. 17-18)
   of Chart 4 (the final decision of authorisation is however a
   "null obstac" instead of a Decree).

b) Installations for education (see pt. 19)
   of Chart 4 (but the final Decree is issued in agreement
   with the Minister for Education).

c) Installations for ships (see point 20)
   of Chart 4 (but the final Decree is issued in agreement
   with the Minister for the Merchant Marine).

d) Research reactors of 400 kW(th) or less (see point 21)
   of Chart 4 (except for CEB's technical assessment
   and Minister's opinion).

e) Other installations (see points 22 and 23)
   of Chart 4 (but the final Decree is issued in agreement
   with the Ministries for the Interior, Labour
   and Social Security, and Health).
7. LUXEMBURG

I. LEGISLATIVE SOURCES.

1. The skeleton law providing the foundations for successive laws, in particular laying down the authorization procedure for the construction and operation of nuclear installations is the Act of 25 March 1963 concerning the protection of the population against the dangers caused by ionizing radiations.

(1) In particular, Art. 2 of this Act reads: "To the end of protecting public health, the production, manufacture, importation, transportation, sale, retention or use for any purpose in general, of appliances or substances capable of emitting ionizing radiations, as well as the disposal and the evacuation of radioactive substances shall be subject to conditions to be determined by public administrative regulation.

2. Pursuant to this skeleton law, a Grand-Ducal Regulation was adopted on 8 February 1967 (2). This regulation contains in particular a classification of nuclear installations in descending order of the danger involved in such activities (see point 3) as well as the rules governing the granting of authorization for the construction (see points 4 to 34) and operation (see points 35 to 40) of each class of installation.

(1) "Loi du 25 mars 1963 concernant la protection de la population contre les dangers résultant des radiations ionisantes" (Journal Officiel of 10 April 1963, p. 227).

(2) "Règlement grand-ducal du 8 février 1967 portant sur l'exécution de la loi du 25 mars 1963 concernant la protection de la population contre les dangers résultant des radiations ionisantes" (Journal Officiel of 8 March 1967, p. 142), hereafter abbreviated to "GDR 63".
II. AUTHORIZATION PROCEDURE.

A. AUTHORIZATION FOR CONSTRUCTION.

3. The Regulation of 8 February 1967 defines four classes of nuclear installations (1), only three of which Class I, II, III are subject to authorization for construction (2). No other category of installations except Class IV (3) is exempted of such authorization (4). Installations comprised in more than one class are subject to the provisions relating to the highest class (5). The following paragraphs (see points 4 to 34) are designed to describe the authorization procedure for the construction of installations falling within Classes I to III.

(1) See Art. 2 (1) of the GDR 67.

(2) See Art. 2 (2) of the GDR 67.

(3) Class IV designates the following installations (see Art. 2 (1) of the GDR 67:

1. installations having on their premises radioactive nuclides in amounts, total activity is given by the value \( X_4 \) in the table below, excluding the states, quantities and activities which include these installations within Classes I, II or III.

2. installations having on their normal premises appliances which, without in the strict sense being appliances producing X-rays, accessorially emit X-rays (e.g. television sets), with the exclusion of appliances including these installations within Class II.

3. installations having on their premises appliances containing radioactive substances in amounts total activity exceeds the values fixed under point 1 of the present class, provided that:

a) these latter installations are sealed;

b) the dose that can be received does not exceed 0,1 millirem per hour at any point within a distance of 0,1 m from the surface of the appliance;
4. the installations having on their premises radioactive substances in any amount, provided that the concentration of the latter is less than 0.002 microcurie per gramme, or less than 0.01 microcurie per gramme for natural solid radioactive substances.

<table>
<thead>
<tr>
<th>Radio-toxicity</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Very high</td>
<td>$X_2 &gt; 100 \mu\text{Ci}$</td>
<td>$100 \mu\text{Ci} &gt; X_3 &gt; 0.1 \mu\text{Ci}$</td>
<td>$0.1 \mu\text{Ci} &gt; X_4$</td>
</tr>
<tr>
<td>B High</td>
<td>$X_2 &gt; 1 \text{mCi}$</td>
<td>$1 \text{mCi} &gt; X_3 &gt; 1 \mu\text{Ci}$</td>
<td>$1 \mu\text{Ci} &gt; X_4$</td>
</tr>
<tr>
<td>C Moderate</td>
<td>$X_2 &gt; 10 \text{mCi}$</td>
<td>$10 \text{mCi} &gt; X_3 &gt; 10 \mu\text{Ci}$</td>
<td>$10 \mu\text{Ci} &gt; X_4$</td>
</tr>
<tr>
<td>D Low</td>
<td>$X_2 &gt; 100 \text{mCi}$</td>
<td>$100 \text{mCi} &gt; X_3 &gt; 100 \mu\text{Ci}$</td>
<td>$100 \mu\text{Ci} &gt; X_4$</td>
</tr>
</tbody>
</table>

As regards establishments holding radionuclides of different radiotoxicity, there is a formula which determines their class.

(4) Installations of Class IV 2. provided that they function with a "pointe" tension equal or higher than 5 KV and they emit accessorily X-rays of an intensity such that the dosis being able to be received at their surface is higher than 0.5 millirem per hour, and 3, however, have to be declared by the manufacturer or the importer to the Minister for Public Health, and accepted by this.
1) **Authorization for installations of Class I** (1).

4. Class I designates the following installations (2):

1. installations having on their premises one or more nuclear reactors;
2. installations having on their premises irradiated nuclear fuel;
3. installations having on their premises fissile substances in such conditions that half of the minimum critical mass could be exceeded.

5. For installations in this Class, some of the procedural steps are to be carried out at regional level (see points 6 to 9), and others at national level (see points 10 to 13).

   *a) Regional level.*

6. The application for authorization must be forwarded in quintuplicate by the head of the installation concerned to the Mayor ("bourgmestre") of the Commune in which this installation is to be located (3), as well as to the Mayors of Communes which are less than 500 meters from the external limits of the installation (4).

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(1) An outline description of this procedure is given in Chart I, annexed hereto.

(2) See Art. 2 (1) of the GDR 63.

(3) See Art. 2 (3) subpar. 1 and 2 of the GDR 63

(4) See ibidem.
7. The Mayors concerned post then official notices announcing the content of this application, which is simultaneously available for inspection by the public at the respective Town Halls (1), together with the plans of the future installation.

8. After expiry of fifteen days after this publication, a member of the respective Council of Mayor and Aldermen ("collèges des bourgmestres et échevins") or a special commissioner appointed for this purpose, collects the written observations and carries out in the Commune concerned an enquiry de commodo et incommodo, during which all interested persons who so desire are heard. Minutes are then drawn up embodying the results of this enquiry (2).

9. Meanwhile, the respective Councils of Aldermen concerned deliver an opinion on the said application (3).

10. b) National level.

Within forty days of receipt of the application for authorization, the Mayors concerned forward the said application, the written observations collected (see point 8), the minutes of the enquiry (see point 8) and the Opinion of the Councils of Aldermen concerned (see point 9) to the Minister for Public Health (4).

(1) See Art. 2 (3) subpar. 3 and 4 of the GDR 63.

(2) See Art. 2 (3) subpar. 5 of the GDR 63.

(3) See Art. 2 (3) subpar. 6 of the GDR 63.

(4) See ibidem.
11. The Minister for Public Health then communicates the file in succession to several persons or bodies (1), which have to deliver their opinion within six months (2). These persons or bodies are the following:

1. All Ministers concerned, and in particular:

   - the Minister for Nuclear Energy, who must eventually consult the Commission of the European Communities on all matters covered by Art. 37 of the Euratom Treaty (3).
   - the Minister of Labour;
   - the Minister of Justice;
   - the Minister of National Economy.


3. The Director of Public Health who himself requests the Opinions of the inspector-doctor of the circonscription concerned, of the Public Health radioprotection-expert and, where appropriate, of national, foreign or international experts or bodies.

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(1) See Art. 2 (3) subpar. 8 and 9 of the GDR 63.
(2) See Art. 2 (3) subpar. 10 of the GDR 63.
(3) Art. 37 (1) of the Euratom Treaty States: "Each Member State shall provide the Commission (of the European Communities) with such general data relating to any plan for the disposal of radioactive waste in whatever form as will make it possible to determine whether the implementation of such plan is liable to result in the radioactive contamination of the water, soil or airspace of another Member State".
12. The decision of authorization or refusal is taken in the form of a Decree by the Government in Council. Any negative decision must be motivated (1).

13. The decision is communicated to the following persons (2):

1. the applicant;
2. the Mayors of the Communes concerned, for publication;
3. the Ministers concerned;
4. the Director of Public Health;
5. the Director of the Inspection Labour and Mines, Inspection Service.

2) Authorization for Class II (3) installations.

14. Class II designates the following installations (4):

1. Installations having on their premises radioactive nuclides in amounts total activity is given by the value X2 in the table above (see note 3, page 2) excluding the states and quantities which bring these installations within Class I;
2. Installations dealing with collecting, processing, conditioning or storing radioactive wastes;
3. Installations having on their usual premises equipment producing X-rays capable of functioning under a peak tension higher than 200 KV;
4. Installations having on their premises particle accelerators;
5. Radioactive appliances and products used itinerantly, even if the installations concerned have on their premises nuclides which would bring them into Class III, if they were not mobile.

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(1) See Art. 2(3) subpar.11 of the GDR 33.
(2) See Art. 2(3) subpar.12 of the GDR 63.
(3) An outline description of this procedure is given in Chart II, annexed hereto.
(4) See Art. 2(1) of the GDR 63.
15. For the installations in this Class, some of the procedural steps are to be carried out at regional level (see points 16 to 19), and others at national level (see points 20 to 23).

a) Regional level.

16. The application for authorization has to be forwarded in quintuplicate by the head of the installation concerned to the Mayor ("bourgmestre") of the Commune in which this installation is to be situated (1), as well as to the Mayors of Communes which are less than 100 meters from the external limits of the installation (2).

17. The Mayors concerned then post official notices announcing the content of this application, which is available for inspection by the public at the respective Town Halls (3), together with the plans of the future installation.

18. After expiry of fifteen days after this publication, a member of the respective Council of Mayor and Aldermen ("collèges des bourgmestre et échevins") or a special commissioner appointed for this purpose, collects the written observations and carries out an enquiry de commodo et incommodo, during which all interested persons who so desire are heard. Minutes are then drawn up embodying the results of this enquiry (4).

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(1) See Art. 2(4) subpar. 1 and 2 of the GDR 63.

(2) See ibidem.

(3) See Art. 2(4) subpar. 3 and 4 of the GDR 63.

(4) See Art. 2(4) subpar. 5 of the GDR 63.
19. Meanwhile, the respective Councils of Aldermen concerned deliver an Opinion on the said application (1).

b) National level.

20. Within forty days of receipt of the application for authorization, the Mayors concerned forward the said application, the written observations collected (see point 18), the minutes of the enquiry (see point 18) and the Opinion of the Council of Aldermen concerned (see point 19) to the Minister for Public Health (2).

21. The Minister for Public Health then communicates the file in succession to several persons or bodies (3), which have to deliver their Opinion within thirty days (4). These persons or bodies are the following:

1. All Ministers concerned, and in particular:
   - the Minister of Nuclear Energy;
   - the Minister of Labour;
   - the Minister of Justice;
   - the Minister of National Economy.


3. The Director of Public Health, who himself requests the Opinions of the inspector-doctor of the circonscription concerned, of the Public Health radioprotection-expert and, where appropriate, of national, foreign or international experts or bodies.

(1) See Art. 2(4) subpar. 6 of the GDR 63.
(2) See ibidem.
(3) See Art. 2(4) subpar. 8 and 9.
(4) See Art. 2(4) subpar. 10.
22. The decision of authorization or refusal is taken in the form of a Decree jointly by the respective Ministers for Public Health, Labour and Justice. Any negative decision must to be motivated (1).

23. The decision is then communicated to the following persons (2):

1. the applicant;
2. the Mayors of the Communes concerned, for publication;
3. the Ministers concerned;
4. the Director of Public Health;
5. the Director of the Labour and Mines Inspection Service.

3) Authorization for Class III (3) installations.

24. Class III designates the following installations (4):

1. Installations having on their premises radioactive nuclides in amounts total activity is given by the value X3 of the table above (see note 3 page 2 in fine), to the exclusion of states, quantities and activities which would bring these installations into Class I or in Class II.

2. Installations having on their usual premises appliances producing X-rays capable of functioning under a peak tension of 200 KV or less.

(1) See Art. 2(4) subpar. 11 and 12 of the GDR 63.
(2) See Art. 2(4) subpar. 13 of the GDR 63.
(3) An outline description of this procedure is given in Chart II, annexed hereto.
(4) See Art. 2(1) of the GDR 63.
25. For installations of this Class, some of the procedural steps are to be carried out at regional level only (see points 26 to 29), and others both at regional and national level (see points 30 to 34).

a) Regional level.

26. The application for authorization has to be forwarded in quintuplicate by the head of the installation concerned to the Mayor ("bourgmestre") of the Commune in which this installation is to be located (1).

27. The Mayor posts then official notices announcing the content of this application, which is simultaneously available for inspection at the Town Hall of the Commune concerned, together with the plans of the future installation.

28. After expiry of fifteen days after this publication, a member of the Council of Mayor and Aldermen ("collège des bourgmestre et échevins") or a special commissioner appointed for this purpose, collects the written observations and carries out an enquiry de commodo et incommodo during which all interested persons who so desire are heard. Minutes are then drawn up embodying the results of this enquiry (3).

(1) See Art. 2(5) subpar. 1 and 2 of the GDR 63.

(2) See ibidem.

(3) See Art. 2(5) subpar. 3 of the GDR 63.
29. Meanwhile, the Council of Aldermen concerned delivers an Opinion on the said application (1).

b) Regional and national level.

30. The Mayor concerned then forwards the said application, the written observations collected (see point 28), the minutes of the enquiry (see point 28) and the Opinion of the Council of Aldermen (see point 29) to the inspector-doctor of the circonscription concerned and to the Director of the Labour and Mines Inspection Service (2).

31. The latter persons request then the Opinion of the Public Health radioprotection-expert and, where appropriate, that of national and foreign experts (3).

32. Within thirty days of the documents listed on point 30, both the inspector-doctor of the circonscription concerned and the Director of the Labour and Mines Inspection Service transmit their respective Opinions to the Mayor of the Commune concerned (4).

33. The decision of authorization or refusal is taken by the Council of Aldermen ("collège échevinal") of the Commune concerned. Any negative decision must to be motivated (5).

(1) See Art. 2(5) subpar. 3 of the GDR 63.

(2) See ibidem.

(3) See Art. 2(5) subpar. 5 of the GDR 63.

(4) See Art. 2(5) subpar. 6 of the GDR 63.

(5) See Art. 2(5) subpar. 7 and 8 of the GDR 63.
34. The decision is then communicated to the following persons (1):

1. the Minister of Justice;
2. the Minister for Public Health;
3. the applicant;
4. the inspector-doctor for Public Health of the circonscription concerned;
5. the Director of the Labour and Mines Inspection Service.

B. AUTHORIZATION FOR OPERATION.

35. The authorization granted for an installation of any of the Classes examined gives the applicant the right to undertake construction of this installation in accordance with its terms (2). But, for certain of these Classes, such authorization does not give the applicant the right to put the installation into operation.

36. Indeed, an authorization for operation is necessary for installations of Class I and Class II (3).

37. In fact, the protection arrangements as well the operation of these two Classes are subject to a procedure of acceptance by a commission designated, or a body approved, by the competent Minister(s) (4).

(1) See Art. 2(5) subpar. 9 of the GDR 63.

(2) See Art. 2(9) subpar. 1 of the GDR 63.

(3) See Ibidem.

(4) See Art. 2(9) subpar. 2 of the GDR 63.
38. For the starting or operation of the installation to be authorized, the minutes established by the relevant commission or body have to be fully favourable and the starting or operation formally authorized (1).

39. But, even so, the head of the installation must communicate before starting or operation, to the Minister for Public Health, by registered letter sent at least fifteen days in advance, the date forecast for starting or operation, and the above mentioned insurance policy applied for a certificate to the effect that a financial guarantee is available (2).

40. The Minister for Public Health has then to forward these documents to the other Ministers concerned (3).

---

(1) See Art. 2(9) subpar. 3 of the GDR 63.

(2) See Art. 2(9) subpar. 4 of the GDR 63.

(3) See Art. 2(9) Ibidem.
LUXEMBOURG - Procedure of authorization: Class I.
LUXEMBOURG - Procedure of authorization: Class II.

CHART II

<table>
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<td>Council(s) of the town(s) concerned</td>
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<tr>
<td>Special body of acceptance</td>
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</tbody>
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LUXEMBOURG - Procedure of authorization: Class III.

Application for Construction

Publication

Opinion

Exten (labour)

Opinion

Opinions

Decision

Applicant

Mayor of the Commune

Population

Council of Aldermen

Dept. inspect. corps + Dir. inspect. labour

Experts

Regional level

Mixed level
8. THE NETHERLANDS

I. LEGISLATIVE SOURCES

1. The skeleton law providing the foundations for successive decrees, in particular laying down the authorization procedures for the construction and operation of nuclear installations, is the Act of 21 February 1963 "fixing rules concerning the release of nuclear energy and the use of radioactive substances and apparatus emitting ionizing radiations (Nuclear Energy Act)" (1). In particular, Art. 15 (b) reads: "Without a license granted jointly by the Ministers of Economics and of Social Affairs and Public Health, it is not permitted: ... b) to erect, to put into or keep in operation, or to alter an installation where nuclear energy can be generated, fissionable substances can be produced, processed or worked up as well as where fissionable substances are stored.

2. Pursuant to this skeleton law, several decrees were adopted, in particular one laying down detailed rules on the authorization procedures for the construction and operation of nuclear installations: the "Decree of 4 September 1969 implementing Art. 16, 17, 19(1), and 21 of the Nuclear Energy Act (Decree on nuclear installations, fissionable substances and ores)" (2).

---

(1) "Wet van 21 februari 1963, houdende regelen met betrekking tot de vrijmaking van kernenergie en de aanwending van radioactieve stoffen en ioniserende stralen uitzendende toestellen (Kernenergiewet)" (Staatsblad van het Koninkrijk der Nederlanden (= Stb 1963, No.82). This Act will be hereafter abbreviated to "A.63".

(2) "Besluit van 4 september 1969 tot uitvoering van de artikelen 16, 17, 19, eerste lid, en 21 van de Kernenergiewet (Besluit kerinstallaties, spiljstoffen en ertsen)" (Stb 1969, No. 403). This Decree will be hereafter abbreviated to "D.69".
II. AUTHORIZATION PROCEDURE (1)

3. In principle, any nuclear installation is subject to authorization for its construction, as well as for its operation (2).

4. In particular exempt from the authorization procedure are those installations listed on point 1 which are not intended for and are not used for holding of materials other than non-irradiated fissionable materials, provided that the latter materials contain only natural or depleted uranium or natural thorium in quantities of not more than 100 grammes of each of these elements and no plutonium (3).

5. The respective procedures of authorization for construction (see points 6 to 21) and operation (see point 22) are almost identical, except notably for the public hearing (see point 22) (4).

A. Authorization for construction

6. The authorization procedure is started at the national level (see points 7 and 8), continued at the regional level (see points 9 to 17) and terminated at the national level (see points 18 to 21).

   a) National level (1st stage)

7. The application for authorization must be forwarded by the person concerned to the Minister of Economic Affairs and a copy thereof to the Minister of Social Affairs and to the Minister for Public Health and Environmental Control (5). The information contained in the said application varies according to the type of installation for which the authorization is requested (6). If different types of installations are involved, provided

(1) A schematic description of this procedure is provided in Annex.
(2) See Art. 15 and 21 of D.69
(3) See Art. 44 of the D.69
(4) These procedures are somewhat simplified as regards installations producing, processing or working up non-irradiated fissionable materials not containing plutonium or enriched uranium
(5) See Art. 3(1) of the D.69
(6) For installation releasing nuclear energy, see Art.6 of D.69; for installations where fissionable materials containing plutonium or enriched uranium, or irradiated fissionable materials are produced, processed or worked up, see Art.7 of D.69; for installations for storing fissionable materials as defined above, see Art.8 of D.69; for installations where non-irradiated fissionable materials not containing plutonium or enriched uranium are produced, processed or worked up, see Art.9 of D.69; for installations for storing such non-irradiated fissionable materials, see Art. 10 of D.69.
that they form one unit and are situated close together, a single applica-
tion can be made containing all pertinent information relating to each
type (1)

8. All applications for authorization have to be published by the above-
mentioned Ministers in the Dutch Official Journal ("Staatscourant") and in
one or more newspapers (2)

b) Regional level

9. The said application is also notified by the Ministers mentioned above to
the Executive Council of the Province (3) where the installation - or
its main part - will be situated (4), as well as to the respective Execu-
tive Council of other Provinces if the proposed installation is to be
located less than ten kilometres from their boundary (5).

10. The application is then communicated without delay by the Executive
Council of the Province where the installation - or its main part - is to
be situated, not only to the municipal council ("bestuur der gemeente")
concerned (6), but also to those municipal councils of this Province's
communes whose boundaries are situated less than ten kilometres from the
projected installation (7). This is also done by the Executive Council
of (an) other Province(s), if the boundary of the commune(s) concerned
is (are) situated less than the same 10 kilometres from the said
installation (8).

11. Furthermore, all the Executive Councils of the Provinces notified with
the application concerned (see point 9) have to communicate this applica-
tion at once to the bodies responsible in the Province concerned for the
prevention of pollution of those surface waters which are situated -
totally or in part - within ten kilometres of the proposed site (9) and
also to communicate to the competent Ministers (see point 7) the names of
the communes which have been notified with the said application and the
date of this notification (10)

(1) See Art. 3(3) of the D.69  (6) See Art. 16(1) of D.69
(2) See Art. 17(1) of A.63  (7) See ibidem
(3) "Gedeputeerde staten van de provincie"  (8) See Art. 16(2) of D.69
(4) See Art. 15(1) of D.69  (9) See Art. 16(3) of D.69
(5) See Art. 15(2) of D.69  (10) See Art. 16(4) of D.69
12. Within fourteen days from receipt of the application, the municipal
council concerned has to make a public announcement - something which
is at once communicated to the competent Ministers (see point 7) (1), to
set up written notices at the place where the installation will be sited -
either totally or in part, in the commune concerned - and ensure that all
owners and users adjoining the said place receive written notice (2).

13. The request itself (3) - as well as, for the communes where the entire
installation (or its main part) is situated, a copy of the safety report
submitted with the application and supplied by the Minister of Economic
Affairs, the Minister of Social Affairs and the Minister for Public
Health and Environmental Control (4) - are then made available for public
inspection in each commune concerned.

14. Objections - either oral or written - are received during a public hearing
held in the commune where the installation is to be situated (see point
12) by a Committee especially appointed by the abovementioned Ministers
(5), at least one month but not more than two months after the public
announcements (6).

15. Copies of all objections and of the Minutes of the Committee's meeting
have to be sent by this Committee to the above three Ministers and to
the municipal council where the public hearing was held (7).

(1) See Art. 17(4) of D.69
(2) See Art. 17(1) of D.69
(3) See Art. 17(2) of D.69
(4) See Art. 18 of D.69
(5) See Art. 19(1) and (4) of D.69. The said Committee is composed of a member
of the Provincial Executive Council, the Inspector of Public Health for the
district appointed for the surveillance of the environmental hygiene, the
district head of the Labour inspectorate and a representative of the State
Institute for Purification of Waste Water (see Art. 19(2) of D.69).
(6) See Art. 19(5) of D.69. These objections may concern other matters than
danger, damage or nuisance only if these objections come from municipal or
provincial councils (as resulting from Art. 17(3) of D.69).
(7) See Art. 19(7) of D.69
16. The applicant has then to be sent by the said Committee a copy of the Minutes concerned and all objections received (1).

17. The applicant may then send his written observations to the said Ministers and state in which way he is prepared to meet the objections in question (2).

c) National level

18. The decision on the application is given by an Order of the Ministers of Economic Affairs, of Social Affairs and of Public Health and Environmental Control, jointly, in agreement with any other Ministers involved (3).

19. The said decision has to be sent to the applicant by registered letter, and if the authorization is refused, the reasons therefore have to be stated (4).

20. Within one week of the decision, all objectors (5) and the provincial councils in the Province where this session has been held (6), must be informed of the said decision and, if the authorization has been granted, the objections which have been taken into account. Within the same time-limit, the communes involved (7) have also to be informed of the decision (8).

21. The applicant - as well as any other interested person or body (local authorities, objectors) - may then appeal the said decision (9). In particular, if the authorization concerned has been granted, the conditions attached thereto may be appealed. This appeal is received by a special administrative court, whose advice is generally followed in practice by the licensing authorities (see point 18).

(1) See Art. 30(1) of D.69
(2) See Art. 30(2) of D.69
(3) See Art. 18(1) of A.63
(4) See Art. 18(2) of A.63
(5) See Art. 30(3) of D.69
(6) See Art. 30(4) of D.69
(7) See points 9 and 10
(8) See Art. 30(5) of D.69
(9) See Art. 50 and ff of A.63
B. Authorization for operation

22. The procedure is exactly the same as that for the authorization for construction (see points 6 to 21), subject however to two exceptions. On the one hand, the information as referred to in point 7, does not have to be provided to the competent Ministers and on the other hand, with respect to the public hearing (see points 12 and ff.), it only has to be held if changes in the concerned installation during construction have increased the risk to the public from that which existed at the time of application for construction (1).

(1) See Art. 20 of D.69
NETHERLANDS - Procedure of authorization

**Applicant**
- Min. of Economic Affairs and Social Affairs
- National level (1st stage)

**Regional level**
- Executive Council of the Province concerned
- Municipal Councils concerned
- Authoritative bodies concerned for water pollution

**Public**
- Notification
- Final decision

**Decision**
- Objections & Minutes

**Min. of Economic Affairs and Social Affairs**
- Administrative Court

**Actors**
9. UNITED KINGDOM

I. LEGISLATIVE SOURCES

1. The most important Act relating to the authorization procedure for the construction and operation of nuclear installations is the Nuclear Installations Act of 1965 (1) as amended by successive Acts in 1969 and 1971 (2), and Regulations in 1974 (3).

II. AUTHORIZATION PROCEDURE

2. The following classes of installations are subject to this authorization procedure (4):

(a) any nuclear reactor (other than such a reactor comprised in a means of transport, whether by land, water or air);

(b) any installation designed or adapted for the carrying out of any process involved in the manufacture from -
   a) enriched uranium,
   b) plutonium,
   c) any alloy, chemical compound, mixture or combination containing enriched uranium,
   d) any alloy, chemical compound, mixture or combination containing plutonium of fuel elements to be used for the production of atomic energy;

(c) any installation designed or adapted for the carrying out of any process (not being a process carried out solely for the purposes of chemical or isotopic assay or metallographic investigation) involved in -

(1) Hereafter abbreviated to "A.65"
(2) Nuclear Installations Act 1969 and Atomic Energy Authority Act 1971
(3) The Nuclear Installations Act 1965 etc. (Repeals and Modifications) Regulations 1974 - these Regulations made under the Health and Safety at Work etc. Act 1974 effectively transferred the licensing function from the Secretary of State for Energy and the Secretary of State for Scotland to the Health and Safety Executive
(4) See A.65, s. 1(1) for point (a), and Nuclear Installations Regulations 1971 (Statutory Instrument 1971/381), Regulation 3, for points (b) to (1).
a) the production from —
   (i) enriched uranium,
   (ii) any alloy, chemical compound, mixture or combination containing
        enriched uranium,
   of any alloy, chemical compound, mixture or combination containing
        enriched uranium,

b) the production from —
   (i) plutonium,
   (ii) any alloy, chemical compound, mixture or combination containing
        plutonium,

c) the production, from any alloy, chemical compound, mixture or combination
   containing enriched uranium, of enriched uranium,

d) the production, from any alloy, chemical compound, mixture or combination
   containing plutonium, of plutonium;

(d) any installation designed or adapted for the incorporation of —
   a) enriched uranium
   b) any alloy, chemical compound, mixture or combination containing enriched
      uranium,
   c) plutonium,
   d) any alloy, chemical compound, mixture or combination containing plutonium,
   in any device designed to form part of a nuclear assembly or designed for
   irradiation in a nuclear reactor other than a device designed solely for the
   purpose of measuring neutron flux;

(e) any installation comprising a nuclear assembly designed or adapted for the
    production of neutrons and containing —
    a) enriched uranium,
    b) any alloy, chemical compound, mixture or combination containing enriched
       uranium,
    c) plutonium,
    d) any alloy, chemical compound, mixture or combination containing plutonium,
    and in which a controlled chain reaction can be maintained with an additional
    source of neutrons;
any installation designed or adapted for the processing of irradiated nuclear fuel other than processing carried out solely for the purpose of chemical or isotopic assay or metallographic investigation of such nuclear fuel;

any installation designed or adapted for storage of —

a) fuel elements referred to in paragraph (1) of Regulation 3 (see point 2, (b)),

b) irradiated nuclear fuel.

c) bulk quantities of any other radioactive matter which has been produced or irradiated in the course of the production or use of nuclear fuel, other than storage incidental to carriage and in the case of irradiated nuclear fuel other than storage incidental to any of the excepted purposes referred to in paragraph (5) of Regulation 3 (see point 2, (f));

any installation designed or adapted for —

a) any treatment of irradiated matter which involves the extraction therefrom of plutonium or uranium,

b) any treatment of uranium whether enriched or not such as to increase the proportion of the isotope 235 contained therein;

any installation designed or adapted for the carrying on of any process involved in the production from nuclear matter, not being excepted matter, of isotopes prepared for use for industrial, chemical, agricultural, medical or scientific purposes.

This authorization procedure does not apply — "ratione personae" — to the UKAEA (1) or to Government Departments, although they are liable to third parties as if they were licensees (2). Moreover, the Secretary of State for Energy

(1) The "United Kingdom Atomic Energy Authority" is a public corporation whose main functions are, broadly, to produce, use and dispose of atomic energy and to carry out research into matters connected therewith; to manufacture, produce, acquire, treat, store, transport and dispose of radioactive substances and any articles which may be required for the production or use of atomic energy (see Art.2(2) of the Atomic Energy Authority Act, 1954).

(2) s. 8 and 9 of A.65
and for Scotland can exempt from this procedure any installation otherwise requiring an authorization (see point 2), provided that he is satisfied that it is not a nuclear installation within the meaning of the International Third Party Liability Conventions in the Nuclear field to which the U.K. is a Party (i.e. the Paris Convention) (1).

4. As a general statement, the authorization either for construction or for operation is granted in respect of the site and not in respect of the installation itself (2). In particular, a single authorization — called a "nuclear site licence" — may be granted in respect of two or more installations in the vicinity of one another (3). This licence may have attached to it conditions concerning safety, notably with respect to "the design, siting, construction, installation, operation, modification and maintenance of any plant or other installation on, or to be installed on, the site" (4). The aim of the following paragraphs is to describe the procedure for the granting of this nuclear site licence. This licence contains in particular conditions on construction of the installations concerned (see points 5 to 16) — to which are later added special conditions applicable for the operation of these installations (see points 17 and 18).

A. Authorization for construction

5. The application for a nuclear site licence must be forwarded to the licensing authority (see points 8 to 16), but, in practice, before this, the applicants usually consult the Nuclear Installations Inspectorate informally (see points 6 to 7).

1) Consultation of the Nuclear Installations Inspectorate

6. Applicants for a nuclear site licence — which must be bodies corporate (5) — thus usually consult the Nuclear Installations Inspectorate (6), regarding:

(1) Nuclear Installations Regulations 1971, Regulation 4 (SI 1971/381)
(2) See s. 1(1) of A.45
(3) Ibidem, s. 3(2)
(4) Ibidem, s. 4(1)(b)
(5) Ibidem, s. 3(1)
(6) The Nuclear Installations Inspectorate is not a public body in law — it is a division of the Health and Safety Executive (the licensing authority).
the information required in the formal submission for a licence and on the
detailed procedures to be followed. This information and these procedures
will vary with the type and size of the proposed installation. However,
sufficient information must be provided to enable the Inspectorate to assess
the safety of the proposed plant and the suitability of the site. In
particular, for power reactors, applicants are required to submit details
of the fundamental safety principles on which the design is based and indicate how these principles are to be incorporated in the plant.

7. If the assessment of the proposed site and installation proves to be satisfac-
tory, the applicant is advised that there are no safety objections to the
granting of a licence to construct the installation and he may then make a
formal application to the responsible authority.

2) Decision by the responsible authority

8. For the U.K., excluding Northern Ireland, the responsible authority to
receive the application is the Health and Safety Executive. For Northern
Ireland it is the Department of Commerce for Northern Ireland.

9. The responsible authority may at their discretion direct an applicant for
a licence to serve notice on local authorities, river boards, local fisheries
committees, statutory water undertakings and other similar bodies. They
must then consider any representations those bodies may make, which must be
forwarded to them within three months of the notice communicated to those
bodies (1).

10. Electricity boards are exempt from the obligation to serve such notices
because, under the existing electricity supply legislation (2), they are
obliged, before obtaining the Secretary of State's consent to the construc-
tion (or extension) of a generation station—whether nuclear or not—to
notify nearby landowners, the local authority and the local planning autho-
rity of the projected installation. These are given an opportunity to state

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(1) See s. 3(3) of A.65
(2) See s. 3(4) of A.65 and Electric Lighting Act 1909, s. 2, as amended, Electricity
Act 1957 s. 33 and s. 34 and Electricity (Publication of Applications) Regulations
1957 (SI 1957/2227).
objections. If the local planning authority objects a Public Inquiry must be held (1).

11. The responsible authority (see point 8) then, on the basis of the representations received, decides whether a licence should be granted - or not - and on what conditions (2). But this cannot happen before three months after the service of the last notice (3).

12. In most cases, the said authorization is granted only for construction of the installation envisaged. The control of the construction itself is exercised by the Nuclear Inspectorate by means of the conditions attached to the authorization.

13. Construction of the plant may not begin until the responsible authority is satisfied with information on the design and specifications of the plant together with proposals for the supporting development and testing provided by the licensee. Such a provision will be found in the conditions attached to the licence. It is the practice, of course, for much of the detailed design work to be done after the licence has been issued and construction has begun. Moreover, the licensee is asked to provide a construction programme indicating the dates by which the various design and development programmes for the plant must be completed if this programme is to be met. This enables the Inspectorate to determine its requirements for information and the dates by which they must be met for assessment purposes. Information on the remaining parts of the plant and the necessary development programmes is then provided in the appropriate sequence.

14. Lastly, a Final Safety Report is required some months before fuel loading of the reactor begins. This Report summarizes the information in the earlier submissions, brings it up-to-date where necessary, and includes theoretical fault analyses based on the best estimate of plant parameters. It also includes an outline of the plant operating techniques to be adopted and describes the administration arrangements for the power station.

(1) There is no Public Inquiry procedure under the Nuclear Installations Act
(2) See s. 4(1) of A.65
(3) See s. 3(3) of A.65
15. The above relates mainly to the formal information submissions required from the licensee but it has been found useful for the Inspectorate's assessors to have close but more informal links with the licensee so that information about the plant becomes available continuously and design problems are appreciated as they arise.

16. The responsible authority may, at any time, amend, add or revoke licence conditions (1). These conditions may require, for example, that the licensee obtains approval from the responsible authority of specific stages of construction. That authority may also revoke the licence itself at any time (2).

B. Authorization for operation

17. There is no new licence issued for the operation of an installation but safety assessments of the detailed design and of the proposed operating procedures have to be submitted to the responsible authority. On the basis of these documents, this authority will replace the conditions concerning notably the construction of the said installation as attached to the site licence (see point 4) by more detailed conditions appropriate to the operation of the said installation, e.g. the loading and commissioning procedures to be followed, the operational limits to be observed, the storage of nuclear fuel, the provision of emergency services, etc. The conditions attached to the said licence are in fact tailored to the particular circumstances of each case.

18. In general, the licensee is also requested to appoint a safety committee to consider any matter of relevance to safety in the operation of the plant concerned.

(1) See s. 4(2) and (3) of A.55
(2) See s. 5(1) of A.55
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To disseminate knowledge is to disseminate prosperity — I mean general prosperity and not individual riches — and with prosperity disappears the greater part of the evil which is our heritage from darker times.

Alfred Nobel
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