

**No. 16230**

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**UNITED STATES OF AMERICA  
and  
FRANCE**

**Technical Exchange Arrangement in the field of research on light water reactor safety (with appendices and patent addendum). Signed at Washington on 23 September 1974 and Paris on 16 October 1974**

*Authentic texts: English and French.*

*Registered by the United States of America on 27 January 1978.*

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**ÉTATS-UNIS D'AMÉRIQUE  
et  
FRANCE**

**Accord d'échanges techniques dans le domaine de la recherche sur la sûreté des réacteurs à eau légère (avec annexes et additif relatif aux brevets). Signé à Washington le 23 septembre 1974 et à Paris le 16 octobre 1974**

*Textes authentiques : anglais et français.*

*Enregistré par les États-Unis d'Amérique le 27 janvier 1978.*

## TECHNICAL EXCHANGE ARRANGEMENT<sup>1</sup> BETWEEN THE USAEC AND THE FRENCH CEA IN THE FIELD OF RESEARCH ON LIGHT WATER REACTOR SAFETY

The United States Atomic Energy Commission (AEC) and the French Commissariat à l'énergie atomique (CEA), having a mutual interest in the exchange of information in the field of research on light water reactor (LWR) safety, and considering the arrangement on regulations concluded between the Ministère de l'industrie et de la recherche scientifique and U.S.A.E.C., hereby agree as follows:

1. The AEC will make available to the CEA unclassified information in the field of LWR safety research which it has the right to disclose, either in its possession or available to it, including information from the technical areas described in Appendix "A".

2. The CEA will make available to the AEC unclassified information in the field of LWR safety research which it has the right to disclose, either in its possession or available to it, including information from the technical areas described in Appendix "B".

3. The information exchange will be in the form of technical reports, correspondence, news-letters, visits, and such other means as the Parties agree. Long-term assignments can be accommodated by mutual agreement on a case-by-case basis. All documents exchanged, which are written in French, will be accompanied by an abstract in English. All documents exchanged, which are written in English, will be accompanied by an abstract in French.

4. Information received pursuant to this arrangement may be disseminated freely in the country of the recipient.

5. Information exchanged under this arrangement shall be subject to the patent provisions in the Patent Addendum to this document.

6. A coordinator will be designated by each Party, who will develop and control the arrangements and procedures for implementing the effective exchange of information under this arrangement. Approximately annually, the coordinators will organize joint working sessions at which the achievements, problems, effectiveness, future programs, etc., pertaining to the exchange will be discussed with the objective of improving the cooperation.

7. The application or use of any information exchanged or transferred between the Parties under this arrangement shall be the responsibility of the Party receiving it, and the transmitting Party does not warrant the suitability of such information for any particular use or application.

8. Each Party will be prepared to the best of its ability, upon specific request, to advise the other on particular questions relating to LWR safety.

9. This arrangement shall remain in operation for five years after its effective date, and may be extended by mutual agreement. However, this arrangement may be terminated at any time, at the discretion of either Party, upon six months' advance notification by the Party seeking to terminate, to the other Party.

10. This arrangement shall enter in force at the date of signature.

<sup>1</sup> Came into force on 16 October 1974 by signature, in accordance with paragraph 10.

DONE in duplicate in the English and French languages. In case of doubt the English version shall be definitive for the interpretation of this Agreement.

For the United States  
Atomic Energy Commission:

For the French Commissariat  
à l'énergie atomique:<sup>1</sup>

[Signed]

GERALD F. HELFRICH

BERTRAND GOLDSCHMIDT

*Title:* Deputy Director, Division of International Programs

*Title:* Director of International Relations

*Date:* September 23, 1974

*Date:* 16 October 1974

#### APPENDIX "A"

##### AEC-CEA LIGHT WATER REACTOR SAFETY RESEARCH EXCHANGE AREAS IN WHICH THE AEC IS PERFORMING LWR SAFETY RESEARCH

1. Primary coolant system rupture studies;
2. Heavy section steel technology program;
3. LOFT program;
4. Power Burst Facility—subassembly testing program;
5. Separate effects testing—loss of coolant accident studies;
6. Loss of coolant accident analyses—analytical model development;
7. Design criteria for piping, pumps, and valves;
8. Alternate ECCS studies;
9. Core meltdown studies;
10. Fission product release and transport studies;
11. Probabilistic studies;
12. All computer codes applicable to the above at whatever state of development they may be;\*
13. Data from all experiments applicable to the above.\*

\* Data and computer codes will be "as is" at the time of the request. AEC or contractor manpower will generally not be available for interpretation of uncompleted work.

#### APPENDIX "B"

##### AEC-CEA LIGHT WATER REACTOR SAFETY RESEARCH EXCHANGE AREAS IN WHICH THE CEA IS PERFORMING LWR SAFETY RESEARCH

1. Non-destructive testing and in-service inspection of primary circuit;
2. Performance of pressure vessel steels;
3. Loss of coolant accident study—in pile experiment (PHEBUS);
4. Loss of coolant accident study—out of pile experiment (OMEGA, ERSEC);
5. Analytical models for loss of coolant analysis;

<sup>1</sup> Atomic Energy Commission.

6. Fission products release and transport studies;
7. Probabilistic studies;
8. Behavior of fuel elements;
9. All computer codes applicable to the above at whatever stage of development they may be;\*
10. Data from all experiments applicable to the above.\*

\* Data and computer codes will be "as is" at the time of the request. CEA or contractor manpower will generally not be available for interpretation of uncompleted work.

### PATENT ADDENDUM

A. With respect to any invention or discovery made or conceived during period of, or in the course of or under, this exchange arrangement on light water reactor safety research between the U.S. Atomic Energy Commission (AEC) and the French Commissariat à l'énergie atomique (CEA).

(1) If made or conceived by personnel of one Party (the assigning Party) or its contractors while assigned to the other Party (recipient Party) or its contractors:

- (a) the recipient Party shall acquire all right, title, and interest in and to any such invention, discovery, patent application or patent in its own country and in third countries subject to a non-exclusive, irrevocable, royalty-free license to the assigning Party, with the right to grant sublicenses, under any such invention, discovery, patent application or patent for use in the production or utilization of special nuclear material or atomic energy; and
- (b) the assigning Party shall acquire all right, title, and interest in and to any such invention, discovery, patent application or patent in its own country, subject to a non-exclusive, irrevocable, royalty-free license to the recipient Party, with the right to grant sublicenses, under any such invention, discovery, patent application or patent, for use in the production or utilization of special nuclear material or atomic energy.

(2) If made or conceived while in attendance at meetings or when employing information which has been communicated under this exchange arrangement by one Party or its contractors to the other Party or its contractors, the Party making the invention shall acquire all right, title, and interest in and to any such invention, discovery, patent application or patent in all countries, subject to the grant to the other Party of a royalty-free, non-exclusive, irrevocable license, with the right to grant sublicenses, in and to any such invention, discovery, patent application, or patent, in all countries, for use in the production or utilization of special nuclear material or atomic energy.

B. Neither Party shall discriminate against citizens of the country of the other Party with respect to granting any license or sublicense under any invention pursuant to subparagraphs A(1) and A(2) above.

C. Each Party waives any and all claims against the other Party for compensation, royalty or award as regards any such inventions or discovery, patent application, or patent and releases the other Party with respect to any and all such claims.