

July 5, 2000

MEMORANDUM TO: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield

FROM: Janice Dunn Lee, Director */RA/*
Office of International Programs

SUBJECT: VISIT OF AMBASSADOR FROM FRANCE FRANCOIS BUJON DE
L'ESTANG, JULY 10, 2000

Attached are the meeting schedule, biographic information, country summary, and background and suggested talking points for use during the July 10 visit of Ambassador de l'Estang with Chairman Meserve. The Ambassador had met former Chairman Jackson on a few occasions and he wishes to introduce himself to Chairman Meserve and make a short courtesy visit.

Attachments: 1. Commission Meeting Schedule
2. Biographic Information
3. Country Summary
4. Background Information and Talking Points

cc: SECY
OGC
EDO
OPA
OCA
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VISIT TO NRC OF
MR. DE L'ESTANG
AMBASSADOR OF FRANCE
JULY 10, 2000

SCHEDULE

3:00 pm Chairman Meserve (17D1)

ACCOMPANYING PERSONS

Regis Babinet, Nuclear Counselor of the French Embassy and Howard Faulkner, OIP

DISCUSSION TOPICS

Ambassador de l'Estang would like to make a courtesy call and pay his respects to the new NRC Chairman. The Ambassador will offer his views on the nuclear situation in France including the potential impact of the nuclear power phase-out in Germany and difficulties with the HLW management situation. He would like the Chairman's views on future nuclear energy development in the U.S.

FRANCE

Nationally, France has a nuclear capability and maturity equivalent to the U.S. on an industrial, commercial basis, including all aspects of the nuclear fuel cycle. In 1998, France generated 78 percent of its electricity by nuclear power as well as exporting significant amounts of electricity to other countries in Europe. The French government is proud of its successful nuclear program, which greatly reduces France's dependency on conventional fuel imports and provides environmental benefits.

France is a nuclear weapons country.

One national utility, Electricite de France

58 licensed PWRs

1 Licensed LMFBR (Phenix)

1 advanced PWR planned (EPR)

Average capacity factor for 1998 was more than 80%

Uranium ore: Mines and processing plants in France, Africa and North America

3 uranium conversion plants

1 large uranium enrichment plant

4 LWR fuel fabrication plants

1 MOX fuel fabrication plant

2 fuel reprocessing plants

3 vitrification facilities

2 low level waste storage facilities

2 sites undergoing suitability characterization for possible HLW repositories

Long history of regulatory and research cooperation with NRC

Regulatory Organizations

Directorate for the Safety of Nuclear Installations, DSIN

Director: Andre-Claude Lacoste

responsible for the licensing and inspection of nuclear facilities

Institute for Nuclear Safety and Protection, IPSN

Director: Michel Livolant

provides technical, safety expertise to DSIN; conducts safety research

Office for Protection Against Ionizing Radiation, OPRI

Director: Jean-Francois Lacronique

responsible for regulation and oversight of radiation protection matters

Activities/Issues

NRC has regular interactions, from the Commissioners to staff specialists, in the regulatory and research areas with most of the nuclear organizations in France. Initially, activities were focused in the reactor area but they have now expanded to include waste management, spent fuel storage, decommissioning, and fabrication and use of Mox fuel.

BACKGROUND AND TALKING POINTS

AMBASSADOR DE L'ESTANG

Ambassador de l'Estang has earlier connections to the U.S., and the French and U.S. nuclear communities. During the period 1978-1980, he was the Director of International Relations for the French Atomic Energy Administration (CEA). In this position he served as the French Governor to the IAEA Board and is familiar with IAEA programs and activities. In 1981, he attended the Advanced Management Program at the Harvard Graduate School of Business Administration. In 1982, he launched Cogema Inc., the U.S. subsidiary of the French fuel cycle company, Cogema. Cogema Inc. is located in Bethesda, MD. Early efforts of Cogema Inc. were directed toward uranium mining, conversion and enriching. Currently, it is the center of Cogema's vitrification, Mox and waste activities in the U.S.

Mr. de l'Estang has been Ambassador to the U.S. since 1995. He met former Chairman Jackson on a few occasions during her term at NRC.

TALKING POINTS

The Chairman may wish to:

- Welcome Ambassador de l'Estang and note his earlier involvement in nuclear activities with CEA and Cogema.

NRC - FRENCH INTERACTIONS

France has more than fifty operating reactors that are very similar in design to Westinghouse PWRs. Their operating experience, covering a broad range of technical safety and aging issues, is very important to NRC. Detailed technical data provided by the French have helped the staff in their development of regulatory actions for the U.S. Also, the staffs exchange information on new developments regarding domestic regulatory approaches and collaborate with DSIN on regulatory activities of common interest for the OECD/NEA Committee on Nuclear Regulatory Activities. Whereas our cooperation with France has been focused in the reactor area in the past, over the last few years, it has expanded to include waste management and decommissioning issues.

RESEARCH COOPERATION

The French are one of the NRC's most active and important partners in cooperative activities in the area of nuclear reactor safety research, mainly conducted through the Institute for Protection and Nuclear Safety (IPSN) and its research facilities, which include the test reactors PHEBUS and CABRI. Currently, we have specific cooperative agreements in the following areas: severe accidents, T-H code development and assessment, high burn-up fuel behavior under accident conditions, probabilistic risk assessment and seismic engineering. Additionally, we participate with IPSN in multilateral research projects dealing with source term, severe accident phenomena, fuel-coolant interaction, concrete containment model testing and human factors.

TALKING POINTS

The Chairman may wish to:

- indicate that NRC has a long history of interactions with the many key government and industrial nuclear organizations in France, and note the value of these to NRC.
- comment on the Agency's movement toward increased use of PSA in regulatory decision making and note the bases for doing so.
- note the extension of two power reactor licenses for an additional twenty years and comment on the changing environment in the U.S. toward the nuclear energy option.

MAJOR REVISIONS TO THE NUCLEAR REGULATORY STRUCTURE IN FRANCE

On December 9, 1998, Prime Minister Lionel Jospin announced that the French government would propose a bill to the parliament relating to the nuclear regulatory structure in France. The key features of the bill are summarized below.

- A new, administrative and independent safety authority will be established to carry out the regulatory function for nuclear installations. The authority will be directed by a five member, full-time Commission. It is expected to be staffed by personnel of the current Directorate for the Safety of Nuclear Installations (DSIN).
- Regulation of radiation protection will be transferred to the new regulatory Commission. Currently, radiation protection is regulated by the Office for Protection Against Ionizing Radiation (OPRI) within the Ministry of Health.
- The technical Institute for Protection and Nuclear Safety (IPSN) will be separated from the Atomic Energy Administration (CEA) and become a stand-alone public entity. It will continue to provide technical expertise to the regulatory Commission.
- A new emphasis on transparency with the formation of a High Council for Nuclear Safety Information and the institution of local information centers.

The proposal was based on a report prepared by Jean-Yves Le Deaut, a Parliamentarian and chairman of the Parliamentary Office for Evaluation of Scientific and Technological Options. Mr. Le Deaut visited NRC in April 1998 and met with Commissioner McGaffigan to obtain background information on the U.S. regulatory program for his report.

Mr. Le Deaut's report recommended the formation of an independent safety commission and assembling both nuclear safety and radiation protection within this commission as is done in the U.S. However, he rejected the U.S. approach of combining the regulatory authority and supporting technical experts into a single organization such as the NRC. Instead, he advocated a system similar to Belgium and Germany where the functions are separated into different organizations. Consequently, he proposed that the technical body, IPSN, be separate and independent from both DSIN and CEA.

The bill was planned to be delivered to the Council of Ministers for final review in June. This was not done because of an unexpected hitch. Following their legal review, the Conseil d'Etat, the French supreme administrative court, issued an unexpectedly critical opinion of the proposed bill. The crux of the court's objection is that it is unconstitutional in that the government cannot delegate its sovereign regulatory responsibilities in matters of public health and safety to an independent authority. At this point, the future of the legislation is not clear. Based on the court's view, the government could revise the bill to conform to French law and resubmit it. However, disagreements between the Ministries of Industry and Environment have resulted in a stalemate in revising the legislation.

Suggested Talking Points

The Chairman may:

- Note the major restructuring of the nuclear regulatory regime in France and inquire as to the current status of the situation and the likely future outcome

FRENCH INDUSTRY CONSOLIDATION

One year ago, there was a significant change in the financial structure of two major French industrial firms, Framatome and Cogema. Framatome is the French nuclear steam supply design and manufacturing organization and Cogema is the national fuel cycle company. Last July, Cogema increased its ownership of Framatome to 34% thereby becoming the major shareholder. Other partial owners of Framatome are EdF, the national French electrical utility, and CEA-Industrie representing the government. The Cogema shares will come from Alcatel, a non-nuclear oriented company that was previously the largest Framatome shareholder. This change is seen as providing Framatome a nuclear sensitive financial prop during a time of strong competitive pressures and will facilitate the industry's effectiveness. This financial restructuring was followed in 2000 with the appointment of Joli Pijselman as Deputy Executive Director of the energy sector of Framatome. Previously, Mr. Pijselman was an executive at Cogema.

In May, 2000, Cogema announced a major restructuring of its organization. The many distinct business units were consolidated into four centers; mining and chemistry, enrichment, fuel/reprocessing, and services. The Directors of the Centers will join the CEO and the Director of Finance to comprise an Executive Committee. This change comes at a time when Cogema is facing declining reprocessing business with the termination of German reprocessing activity by 2005.

TALKING POINTS

The Chairman may wish to:

- acknowledge the change in ownership at Framatome and the re-structuring at Cogema, and inquire as to the reasons for these changes.

FRAMATOME - SIEMENS MERGER

This has been an especially turbulent few years for Framatome. The government discussed privatizing Framatome by a merger with the British engineering company Gec-Alsthom, but eventually decided the company should remain in the public sector. The government felt that the company's future must be based on diversification of its activities to compensate for shrinking nuclear markets, as well as on national and international alliances. Framatome's efforts to find a suitable partner came to fruition with the announcement in December that Framatome and Siemens of Germany had agreed to merge their nuclear businesses.

The merger of Framatome and Siemens will form the world's largest nuclear vendor with total sales of \$3 billion annually and a workforce of 13,000 persons. The combined companies have supplied 21% of the world's power reactors and provide 40% of the world's LWR fuel. The companies said the new entity will seek to expand its presence in the U.S. and Asia. It was reported that the French will hold 66% of the new company's capital, the headquarters will be in France and its Chairman will be French. For Framatome, this alliance is seen as a necessary step to preserve its commercial viability in a shrinking nuclear business climate.

Framatome and Siemens had earlier (1989) joined forces to develop a jointly-designed advanced reactor for both domestic and export markets. The result was a large, evolutionary PWR design called the European Pressurized Water Reactor (EPR). Major safety improvements include increased containment resistance, a core catcher, a four-train safety injection system, higher performance instrumentation and control, better reactor vessel material and a larger, more forgiving primary system. The basic design phase has been completed and the Basic Design Report submitted to the regulators. A subsequent economic optimization phase was completed in 1999. The purpose of this phase was to make EPR competitive with all other means of electricity generation in this time of European electricity deregulation. The future schedule, including licensing and a possible order is uncertain. Both EDF and the leading German utilities acknowledge that there is no need for new capacity in either country for many years.

TALKING POINTS

The Chairman may wish to:

- Acknowledge the plans for Framatome and Siemens to merge nuclear companies and inquire about the current status of affairs.
- Acknowledge the important safety improvements that will be incorporated in the EPR design. Will the situation for additional nuclear generating capacity in France and Germany have any impact on the design effort?

HIGH LEVEL WASTE

The French approach to the HLW issue is different from the U.S. In contrast to putting large resources into a single repository project such as Yucca Mountain, the French have embarked on a multi-faceted approach. They seem to feel that there is no hurry to make firm

technological commitments at this time for a problem that will be around for thousands of years. Rather, they are investigating a number of possibilities.

Earlier, three sites in two different media were identified for investigation as a possible repository location. Subsequently, the government authorized building an underground laboratory at the Burre (clay) site to obtain data for the conception, optimization, retrievability and safety of the site. Further activity at the other two sites was discontinued because they were eventually judged to be geologically unsuitable for a repository. However, earlier this year, the government directed that a second (granite) site be investigated in Brittany. Construction activity at the Burre site is in its early stages with the shafts to be sunk in late 2000.

Although investigating sites for a HLW repository received initial emphasis, in the past few years interim storage seems to be receiving increased attention as a likely and sensible interim step. France is now exploring sub-surface, interim storage of vitrified waste and spent fuel for a period of hundreds of years. The Atomic Energy Administration (CEA) is doing extensive research in the partitioning and transmutation of long-lived radioisotopes, mainly at the Phenix fast breeder reactor.

The experts and the government seem to be leaning toward letting the final disposal issue remain fluid for a period of time to see what develops technically over the years in hopes of finding a better solution than is currently available.

TALKING POINTS

The Chairman may wish to:

- Comment on the NRC involvement in high level waste disposal activities in the U.S.
- Indicate he met with Parliamentarian Christian Batille in May during his visit to the U.S.
- Inquire as to current views on the French approach to the high-level waste disposal issue.