'French nuclear policy betwixt the United States and Europe' from Le Monde (1 December 1969)

Caption: On 1 December 1969, the French daily newspaper Le Monde analyses nuclear policy in Europe and criticises the lack of cooperation between the various European states.

Source: Le Monde. dir. de publ. Beuve-Méry, Hubert. 30.11.-01.12.1969, n° 7 739; 26e année. Paris: Le Monde. "La politique nucléaire française entre les États-Unis et l'Europe", auteur: Vichney, Nicolas , p. 4.

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Last updated: 05/07/2016



French nuclear policy betwixt the United States and Europe

A European plant?

By Nicolas Vichney

French, German and US companies are currently studying the industrial structures required for the building of American-type nuclear power stations in Europe. But the problem is how to supply them with fuel (see the 29 November edition of *Le Monde*).

For a long time now, there has been growing support for the idea that, sooner or later, and certainly before 1975, Europe would need its own uranium enrichment plant. This would be doubly advantageous. It would firstly allow Europe to avoid total dependence on the United States, and secondly meet a demand that is growing so fast that, by the 1980s, the existing American plants will not be able satisfy it.

This has been discussed at length unofficially but no official discussions have been arranged because France has refused to entertain any contact, even for information purposes.

The French were invited on a number of occasions, notably in Brussels, to take part in preliminary studies or simply in an exchange of views. Each time, the invitation was turned down. This is all the more paradoxical given that, at the French plant at Pierrelatte, which is geared solely to military applications, studies had begun on techniques that could be used in a much larger plant for civilian purposes.

This attitude on the part of the only one of the six European countries to have mastered a technique for producing enriched uranium, namely the gaseous diffusion technique, created a vacuum. Others rushed in to fill it, the British being the first. Bonn was particularly receptive, since there was so much frustration at the French attitude.

What is more, the British were smart enough to propose a new process called ultracentrifugation, which had already been studied in Germany and which the British proposed to develop jointly. That was sure to flatter the Germans.

We all know what happened next. Tripartite talks began between Great Britain, Germany and the Netherlands on the phased introduction of plants in Britain and the Netherlands.

Paris and Washington

The French looked on with considerable scepticism. The CEA (the French Atomic Energy Agency) had indeed made some studies of ultracentrifugation, and top management was optimistic. But they were careful not to draw any conclusions, and they cast doubt on the ability of the British, Germans and Dutch to produce the requisite equipment. Technical failure would be accompanied by political failure, and dissension would inevitably arise among the three partners.

In fact, we have no exact information as to how much technological progress the British and Germans have made. For a time, too, there was also quite violent opposition to the project in the Netherlands. The British wanted to reserve for themselves the right to use the new process for military purposes. Some members of the Netherlands Government (the 'Calvinists', as they were called) wanted this research to be geared strictly to peaceful purposes only. Nevertheless, everything fell into place, and the project continued, albeit at a slower pace than had been planned.

While Paris lost interest in the issue, the same was not true for Washington. The Americans had two reasons for their heightened interest. They could not look favourably on competition from Europe that might restrict market access for their own plants and perhaps prevent them from building new ones. Above all, they feared that perfection of the ultracentrifugation technique might lead to nuclear weapons proliferation. While the gaseous diffusion method can be used only in very large plants, ultracentrifugation is suited to small-scale



use and should make it possible for small quantities of nuclear explosives, such as highly enriched uranium 235 and even plutonium 239, to be produced at a relatively low cost (1).

The Americans could hardly dissuade the Germans from taking part in the production of enriched uranium, since they had received 'clearance' from the British. But perhaps the Germans could be persuaded to use the American, gaseous diffusion technique. It is tried and tested and also has the advantage of being less of a political liability than the technique being studied by the Germans and their partners.

So, having been rejected by France, Germany was now being wooed from two sides: by Great Britain and by the United States. The British have already shown their hand, while the Americans still have more cards up their sleeves ... The Germans could be forgiven for thinking that they are now the arbiters on an issue from which they had been systematically excluded.

An agreement with the Italians?

The initiative now lies with Paris, and only Paris. At the most recent ministerial talks on nuclear issues, reference was made to the proposed European enrichment plant. There seemed to be a desire to give the French representatives greater room for manoeuvre. What they will do with it remains to be seen. For some time now, there has been much talk in Paris of a Franco-Italian nuclear accord. The CEA has already loaned enriched uranium to the Comitato per l'Energia nucleare for the *Enrico Fermi*, the Italian nuclear-powered vessel, and, in return, obtained plutonium. Why not conclude agreements with Rome in other areas as well?

This idea is not as far-fetched as it might seem. The Italians would be very willing to take part in the production of enriched uranium. They have already indicated to the British (just as the Belgians have) that they would like to take part in the Anglo-German-Dutch project. By tempting them with the possibility of Franco-Italian cooperation, could we not keep Rome out of the London-Bonn-The Hague triangle?

In fact, that would be an unnecessary precaution, since the British, Germans and Dutch have already said that they will not accept any new partners. They will keep all the more firmly to this position, given that any precedent might possibly be exploited by the French.

Rather than employing a stratagem with only limited impact, they should turn their attention elsewhere, notably towards Europe, however it is defined. France's announcement that it is ready to provide general information about the gaseous diffusion technique and take part in comparative studies of the two existing processes might alter the psychological climate and encourage Great Britain, Germany and the Netherlands to open up their files as well.

So, perhaps as a first stage, conclusions could be drawn about which is the best way forward in terms of Europe's best interests. That is what the Commission in Brussels had been seeking, albeit unsuccessfully.

A judgment of Solomon

As a second stage, if it proves necessary, work could begin on a European plant, but this time without excluding any partner. If the ultracentrifugation process is shown to be effective, it will be all the more so if employed on a larger scale. However, if the gaseous diffusion technique proves to be better, then the European, French and British techniques will stand a better chance of being selected in place of the American one.

Some people believe this will require a judgment of Solomon. Studies have shown that it would be wise to begin enriched uranium production using both techniques consecutively.

With the gaseous diffusion technique, initial enrichment would reach 1 or 1.5 %. Then, using ultracentrifugation, higher levels of, for example, 3 to 7 % could be reached if required.

In any event, there are several possibilities which, if used, would allow the old continent to assert its



independence in a key sector. It would be a pity not to even explore them.

(1) Irradiating fuel in nuclear plants generates plutonium which normally cannot be used for military purposes. But thanks to ultracentrifugation, it is possible to separate isotopes 239 and 241, which are weapons grade.

