ENCLOSURE 7



COMMISSARIAT & L'ENERGIE ATOMIQUE . CENTRE D'ETUDES NUCLEARES DE FONTENAY - AUX - ROSES

INSTITUT DE PROTECTION ET DE SURETE NUCLÉAIRE

FONTENAY - AUX - ROSES. LE 17.02.1992

DEPARTEMENT D'EVALUATION DE SURETE

DES 92.174

Nuclear Regulatory Commission Office of Nuclear Material Safety Division of Industrial and Medical Nuclear Safety ATTN : Mr Charles J. Haughney Chief, Fuel Cycle Safety Branch WASHINGTON, D.C. 20555 USA

Dear Mr Haughney,

You asked me in your letter dated November 26th 1991 to provide you the technical bases which led to the definition of depleted UF6 quantities acceptable on the Tricastin site of the EURODIF gaseous diffusion plant.

Firstly, I must point out that there is no public document on the subject. However, I can present you succinctly the arguments which prevailed in the definition of this limitation.

In the framework of the licensing procedure for the EURODIF plant, it was decided, as far back as 1976, not to accept the principle of the storage of indefinite quantities of such a product on the site, which required the definition of an acceptable limit of the quantity which may be present, until, it is evacuated in the case of a "definitive" depleted UF6, or utilized in the case of a "temporary" depleted UF6. Moreover, the short-term future of "definitive" depleted UF6 being not well-known, it was agreed to place it in a physico-chemical (9202260108) 498 XA 9/14

form more compatible, as regards safety, with a long-life storage.

To enforce these decisions, the plant authorization decree granted on September 8th 1977 provided, on the one hand, for the definition of a first limit, allowing for the presence of "temporary" depleted UF6 during the startup stage of the plant, as well as for a date for the suppression of the stock of the product, and, on the other hand, for a further review of the depleted UF6 quantity admission on the site.

The first limit was thus defined by taking into account the particular startup conditions of the plant and the time required to prepare a solution enabling "definitive" depleted UF6 to be transformed into a stable compound. The safety documents submitted before the plant startup which spread over several years, from 1978 to 1981, were thus based on these elements.

Later on, once the industrial solution was found (transformation into  $U_3O_8$ ), the limit was re-evaluated so as to take account of the time required to put into service the defluorination installation owned by COGEMA, called W plant. For this reason, but also because of the insufficient capacity of the W plant compared with the "definitive" depleted UF6 production by the EURODIF plant, the limit was gradually raised from 50,000 to 100,000 tonnes, on the basis of a simplified safety assessment.

When it was decided, in 1987, to redefine the upper limit of 100,000 tonnes, the authorities asked the operator to commit himself definitely on a solution for a suppression, sooner or later, of this stock. The latter then proposed, in support of an application for a rise in the previous limit to a maximum of 130,000 tonnes, to increase the W plant twofold. This new proposal of limit was accompanied with an overall safety study of this storage allowing for its own risks but also for all the hazards likely to affect it, particularly on account of the air environment. Further to the review of this study of the provisions aiming at mitigating the consequences, and to the operator's firm commitment to immediately extend the W plant, a first increase in the limit (to 110,000 tonnes) was authorized in 1991 by the safety authority. The extension of the W plant being expected to be operational in 1993, the maximum depleted UF6 quantity stored in 1993 will be 120,000 tonnes and the stock will have to be exhausted at the latest by the end of the operating period of the EURODIF plant. In February 1992, an authorization for the maximum value of 120,000 tonnes was granted, any further increase being henceforth subject to a licensing procedure of modification of the plant authorization decree.

I hope I came up to your expectations and remain at your disposal to discuss this subject in more detail whenever you come to France.

Best regards.

C. DEVILLERS

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