71-3083

U.S. Department of Transportation

Pipeline and Hazardous Material Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

NOV 18 2009

Mr. William Brach, Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards (NMSS)
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Brach:

In accordance with the Memorandum of Understanding between our Agencies, I request that you review French Certificate of Approval No. F/347/AF-96, Revision Ci for the FCC-3 package and make a recommendation concerning our revalidation of the package for import and export use. In accordance with the shipping plans of the applicant, you should restrict your review to 17 x 17 fresh PWR fuel assemblies listed in Appendix 1, 5 and 11 of the certificate.

To assist in your review, electronic copies of the package design certificate and the safety analysis report for the package are enclosed.

Since our applicant desires to use this package in upcoming shipments, we request you provide an estimate of the time needed to complete your review. If you have any questions or need any additional safety information, please feel free to contact me at (202) 366-2993.

Sincerely,

Richard W. Boyle, Chief
Radioactive Materials Branch
Office of Hazardous Materials
Technology

NM5524

AREVA NP
FUEL SECTOR
Design & Sales Business Unit

AREVA

Department of Transportation
1200 New Jersey Ave., S.E
East building, 2nd Floor PHH-23
Washington, D.C. 20590-0001

USA

Attention of Mr Rick Boyle

Ref Number : D-FDE-09-00883
Contact : N. Guibert
Phone number : +33 6 31 27 99 27
E-mail : nicolas.guibert@areva.com

Lyon, August 6, 2009

Subject : FCC3 transport package

US DOT validation of the French certificate of approval

Dir Sir,

The package design consisting in the FCC3 package and its authorized contents is approved in France as a IP-2 package with fissile content. The authorized content of this package is made up of enriched natural uranium fuel assemblies or rods to be delivered from the AREVA manufacturing facilities to the PWR nuclear power plants reactors.

The refuelling of some PWR nuclear power plants in China in 2010 requires the transport of 17x17 PWR fuel assemblies from the AREVA manufacturing facilities located in the US to China. Today, the departure of the loaded FCC3 packages from the US facilities is foreseen for the first semester of 2010.

A new Type IF Approval Certificate was issued on July 15th 2009 in France for the FCC3 package which will be followed by a Type AF Approval Certificate. You will find enclosed to this letter an English translation of the application letter in France for the Type AF along with its enclosures.

We plan to obtain the Type AF certificate in France in September 2010. Please be sure you will be provided this certificate as soon as it is available.

Should you require further information, please feel free to contact us.

Best regards,

Signature numérique
de Gabriel LEROY

G. LEROY
Development Unit Manager
Fuel Services

Copy: R. Land, C. Sanders (AREVA NP inc.), H. Vaudray, N. Guibert, P. Faye, M. Doucet (AREVA NP France)

Enclosure:
- application letter in France D-FDE-09-01452 translated in English
- Note FFDC05297 rev A justifying the conformity to the Type AF
- Safety Analysis Report TFX DC 2159 rev D
- Additional criticality calculation

APPENDIX 1
17x17 12ft fuel assembly characteristics

F/A characteristics before irradiation:	**17x17 12 ft**	
Type of array	17x17	17x17
Nominal pitch of array (mm)	12,6	12,6
Max total mass of the assembly with or without control component (kg)	751	751
Max mass of heavy metal per assembly (kg)	521	521
Nominal active length (mm)	3658	3658
Max number of fuel rods	288(1)	288(1)
F/R characteristics before irradiation:		
Cladding material	Zirconium alloy	Zirconium alloy
- Min thickness (mm)	0,52	0,52
- Min OD (mm)	9,46	9,40
Pellets:	ENU	ENU
- Max diameter (mm)	8,20	8,30
- Max oxide density (97.5 % theoretical density)	10,69	10,69
- Max initial enrichment $^{235}U/U_{total}$ (%)	5	4,9
- Max mass ratio $^{232}U/U_{total}$ (%)	5.10^{-8}	5.10^{-8}
- Max mass ratio $^{234}U/U_{total}$ (%)	0,055	0,055
- Max mass ratio $^{236}U/U_{total}$ (%)	0,05	0,05
Max absolute internal pressure at 20 °C (bars)	32,7	32,7

(1) This number of rods corresponds to the maximum number of rods liable to be inserted into a structure (skeleton or canister), including the guide thimbles.