



**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

RDM-08-012

September 24, 2008

ATTN: Document Control Desk  
Director, Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-001

Subject: 1) NRC Certificate of Compliance No. 6206 for the Model No. Model B Package, USA/6206/AF, Revision 31.  
2) NRC Regulatory Issue Summary 2008-18, Information on Requests for Extending use of Expiring Transportation Packages, Dated August 14, 2008.

To Whom It May Concern:

AREVA NP Inc, an AREVA and Siemens Company, has identified a potential need for the limited use of a package subject to 10 CFR 71.19(a) [Reference 1] during the first quarter of 2009. Attachment I, provided in support of this request, is formatted in accordance with NRC Regulatory Issue Summary 2008-18 [Reference 2].

The schedule and quantity of fuel deliveries as provided in Attachment I are based on current projections. The quantity and delivery dates are subject to change based on customer operating requirements. AREVA NP Inc will keep the NRC informed of potential changes to schedule and quantity.

If you or your staff have any questions, require additional information, or wish to discuss this further, please contact me at 434-832-5172. Please reference our unique document identification number in any correspondence concerning this letter.

Sincerely,

A handwritten signature in cursive script that reads 'Richard D. Montgomery'.

Richard D. Montgomery, Advisory Engineer  
Nuclear Criticality Safety & Shipping Containers

**AREVA NP INC.**  
An AREVA and Siemens company

3315 Old Forest Road, P.O. Box 10935, Lynchburg, VA 24506-0935  
Tel.: (434) 832-3000 - Fax: (434) 832-3840

FORM: 22709VA-1 (4/1/2006)

NMSS01

AREVA NP Inc

RDM-08-012  
September 24, 2008

Cc:

ATTN: Special Permits, PHH-31  
Associate Administrator for Hazardous Material Safety  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation  
1200 New Jersey Ave., S.E.  
Washington, D.C. 20590

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## **ATTACHMENT I**

Response to NRC Regulatory Issue Summary 2008-18  
for the extended use of the Model No. Model B Package  
during 1Q2009

**AREVA NP INC.**  
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FORM: 22709VA-1 (4/1/2006)

## **RIS 2008-18 - Exemption Request for Package Model No. Model B**

Licensees or certificate holders who have identified the need to use these packages should provide the following information to NRC and DOT, before the October 1, 2008, expiration date:

(1) Package Information. NRC Certificate of Compliance Number or DOT Specification Number.

*The Model No. Model B NRC Certificate of Compliance (CoC) is USA/6206/AF. Revision 0 of the CoC was issued prior to 1971.*

(2) Identification of Shipments. (a) Number of shipments; (b) number of packages per shipment; (c) packaging serial numbers; (d) package contents; (e) end use of the radioactive material; (f) shipment origin and destination; (g) mode; (h) general timeframe (e.g., first quarter 2009); and (i) date last shipment will be completed.

*The Model B package may need to be used in support of fuel (lead test assemblies – LTA) deliveries to Braidwood and Catawba.*

### Braidwood

- (a) *A single (1) shipment will be necessary to deliver 8 fuel assemblies.*
- (b) *There are a total of four (4) packages in this shipment.*
- (c) *The package serial numbers are not currently known, however typically 12 packages would be selected from a current fleet of 24 packages to support customer deliveries.*
- (d) *Each package would contain two (2) fuel assemblies consisting of Low Enriched Uranium Oxide, normal form pellets, clad in zirconium alloy metal tubing.*
- (e) *The fuel assemblies will be delivered to and used at a licensed commercial reactor.*
- (f) *Shipments will originate from the AREVA NP Inc Lynchburg Manufacturing Facility (LMF) with delivery to the Braidwood Nuclear Generation Station located in Will County, Michigan as their final destinations.*
- (g) *The mode of transportation will be by tractor/trailer in accordance with USDOT requirements, exclusive use.*
- (h) *The single (1) shipment occurs on 1/14/2009 and will be completed during the first quarter 2009.*
- (i) *The single shipment will leave LMF on 1/14/2009 with arrival at Braidwood on 1/15/2009.*

## RIS 2008-18 - Exemption Request for Package Model No. Model B

### Catawba

- (a) *A single (1) shipments will be necessary to deliver 8 fuel assemblies.*
- (b) *There are a total of four (4) packages in the shipment.*
- (c) *The package serial numbers are not currently know, however typically 12 packages would be selected from a current fleet of 24 packages to support customer deliveries.*
- (d) *Each package would contain two (2) fuel assemblies consisting of Low Enriched Uranium Oxide, normal form pellets, clad in zirconium alloy metal tubing.*
- (e) *The fuel assemblies will be delivered to and used at a licensed commercial reactor.*
- (f) *Shipments will originate from the AREVA NP Inc Lynchburg Manufacturing Facility (LMF) with delivery to the Catawba Nuclear Generating Station located in York County, South Carolina as their final destinations.*
- (g) *The mode of transportation will be by tractor/trailer in accordance with USDOT requirements, exclusive use.*
- (h) *The single (1) shipment occurs on 2/2/2009 and will be completed during the first quarter 2009.*
- (i) *The single shipment will leave LMF on 2/2/2009 with arrival at Catawba on 2/3/2009.*

(3) Reasons for Requesting Extended Use. Justification for extending the use of expiring packages must describe why acquiring replacement packages is not practical and why shipments cannot be made before the October 1, 2008, expiration date. The justification must demonstrate that: (a) there are no alternative domestically approved packages available; (b) the contents cannot be reconfigured such that transport can be conducted in accordance with the regulations; and (c) the transport schedule cannot be adjusted so as to be conducted in accordance with the regulations. The justification must also describe any good-faith efforts to acquire replacement packages that meet the current package performance requirements, including a detailed description of past activities and the current status of acquiring replacement packages. In addition, any adverse impacts that will result if the shipment is not conducted should be fully described.

*AREVA NP Inc has licensed a new package to replace both the 51032-1 and Model B packages which were impacted by the NRC phase-out rule effective on October 1, 2008. The new package, designated as the MAP-12, was approved by the NRC, Certificate of Compliance No. USA/9319/B(U)F-96, on January 30, 2008.*

*AREVA initiated a purchase order for eighty MAP-12 packages in sufficient time to meet all projected deliveries into 2009. Needed changes in package assembly techniques to meet the product quality shipping requirements, unforeseen sub-vendor delays in material deliveries, and fabricator financial difficulties resulted in project delays such that packages could not be supplied in sufficient quantities to meet delivery needs for*

## **RIS 2008-18 - Exemption Request for Package Model No. Model B**

*customers during the first quarter of 2009. However, the current schedule shows that sufficient MAP-12 packages will be available to support shipments into the second quarter 2009 and beyond.*

*AREVA investigated the qualification of an additional package fabricator however the lead time for package manufacturing was not conducive to the scheduled needs. Also, procurement of additional materials to support fabrication at an additional vendor would compete with the same material deliveries to the current fabricator.*

*Based on the current projected fabrication schedule, AREVA will not have sufficient MAP-12 packages to meet delivery needs during the first quarter of 2009. However, AREVA is working with the current fabricator in an attempt to produce sufficient packages to meet the heavy shipping demand in the first quarter of 2009. AREVA has committed to the use of the new MAP-12 package provided that sufficient quantities are available and certified for use. As of mid-September, twenty-four (24) packages have been fabricated with fifteen (15) packages having been certified for use. AREVA will need sixty-seven MAP-12 packages to meet peak delivery demands during the first quarter 2009. AREVA is closely monitoring the production schedule to ensure a minimum of five (5) packages per month.*

*There are no other domestically approved packages that are not otherwise affected by the phase-out rule such that they would be available to support AREVA fuel deliveries during the first quarter of 2009. AREVA has contacted other fuel fabricators regarding availability of alternate packages not affected by the revised rule, however the timing is concurrent with their peak delivery demands such that these alternate approved packages are not available.*

*The contents, Low Enriched Uranium PWR fuel assembly, can not be reconfigured such that transport can be conducted in accordance with the revised regulations using the Model B package. The transport schedule can not be accelerated since the customers can not take receipt of the new fuel until the first quarter 2009. Materials needed to fabricate the reload are also not currently available.*

*AREVA is working with the current MAP-12 fabricator to accelerate production. The current delivery schedule indicates that we will not have sufficient MAP-12 packages to meet all delivery requirements in the first quarter 2009. Inability to deliver the LTAs as required will impact AREVA's ability to bid on future reload contracts for these reactors.*

**(4) Safety Justification for Continued Use and Proposed Compensatory Measures.** Since the expiring package designs may lack safety enhancements included in newer designs, the request must include a safety justification for continued use and a description of compensatory measures that will be used to provide an equivalent level of safety. Examples of compensatory measures that may be considered are: (a) special package inspections, tests, or determinations that ensure that the packaging is in unimpaired physical condition; (b) transport by exclusive use; (c) transport during time of low road

## **RIS 2008-18 - Exemption Request for Package Model No. Model B**

usage; and (d) accompaniment of shipment by escort equipped to effect a recovery in an emergency situation or in case of a transportation accident.

*The Model B package design has been in service since 1971 with an excellent service record. Each package is inspected prior to use and refurbished as required to comply with the design certification requirements. The package is pressure checked to ensure its integrity prior to shipment. The pre-shipment inspections and refurbishment ensures that the packaging is in unimpaired physical condition consistent with the package design as tested during licensing certification. All packages are transported as exclusive use.*

*The Model B package was tested in accordance with the regulatory requirements in effect at the time of package licensing (1971). The package design was subject to three separate 30-foot drop tests and a single puncture test using a simulated fuel assembly. Additional 30-foot rod drop tests were conducted in addition to rod thermal tests. Section 2.0 of the Safety Analysis Report summarizes these tests.*

(5) A Plan and Schedule to Acquire Replacement Packages or Complete Necessary Shipments. Details about the planned acquisition of replacement packages must be provided, along with key milestones, and proposed implementation dates, unless the licensee can show why acquiring a replacement package is not practical and why shipments cannot be made before the October 1, 2008, expiration date.

*As indicated in the response to Item (3), AREVA initiated a purchase order for eighty MAP-12 packages in sufficient time to meet all projected deliveries into 2009. Needed changes in package assembly techniques to meet the product quality shipping requirements, unforeseen sub-vendor delays in material deliveries, and fabricator financial difficulties resulted in project delays such that packages could not be supplied in sufficient quantities to meet delivery needs for customers during the first quarter of 2009. However, the current schedule shows that sufficient MAP-12 packages will be available to support shipments into the second quarter 2009 and beyond.*

*The deliveries to Braidwood and Catawba during the first quarter of 2009 can not be completed prior to October 1, 2008, since the fuel has not been fabricated.*

*AREVA will continue to work with the package fabricator to accelerate production. The MAP-12 will be fully implemented when sufficient packages are available to support full reload deliveries in 2009. AREVA is continuing their support in an extensive training program for customers including both training at LMF and through site deployment tests to ensure the safe receipt, handling, and unloading of fuel from the package.*