



March 30, 2009  
NRC:09:027

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

**Response to U.S. EPR Design Certification Application RAI No. 188**

Ref. 1: E-mail, Getachew Tesfaye (NRC) to Ronda Pederson, et al (AREVA NP Inc.),  
"U.S. EPR Design Certification Application RAI No. 188 (1943), FSAR  
Ch. 9," February 27, 2009.

Ref. 2: Letter, Evan Rosenbaum (Holtec) to NRC Document Control Desk, Doc #1721002,  
"Response to U.S. EPR Design Certification Application RAI No. 188, Questions 09.01.01-4  
and 09.01.01-5, Holtec Fuel Rack Input," March 30, 2009.

In Reference 1, the NRC provided a request for additional information (RAI) regarding the U.S. EPR design certification application. Technically correct and complete responses to these questions, with supplemental Holtec proprietary information transmitted by Holtec to the NRC under separate cover in Reference 2, are provided, as committed.

The following table indicates the respective page(s) in the enclosure that contains AREVA NP's response to the each of the subject questions.

Question #	Start Page	End Page
RAI 188—09.01.01-3	2	2
RAI 188—09.01.01-4	3	3
RAI 188—09.01.01-5	4	4

This concludes the formal AREVA NP response to RAI 188, and there are no questions from this RAI for which AREVA NP has not provided responses.

Holtec considers some of the material contained in the enclosure to be proprietary. As required by 10 CFR 2.390(b), an affidavit is enclosed to support the withholding of the information from public disclosure. Proprietary and non-proprietary versions of the enclosure to this letter are provided.

Sincerely,

*Sandra M. Sloan*  
Sandra M. Sloan, Manager  
New Plants Regulatory Affairs  
AREVA NP Inc.  
Enclosures

cc: G. Tesfaye  
Docket No. 52-020

DOTT  
HRO

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

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FORM 22709VA-1 (4/1/2008)



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**AFFIDAVIT PURSUANT TO 10 CFR 2.390**

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I, Evan Rosenbaum, being duly sworn, depose and state as follows:

- (1) I am the Holtec International Project Manager for the Calvert Cliffs Nuclear Power Plant Unit 3 U.S. EPR Fuel Storage Racks Project and have reviewed the information described in paragraph (2) which is sought to be withheld, and am authorized to apply for its withholding.
- (2) The information sought to be withheld is the Holtec-prepared response to NRC RAI 09.01.01-3, which contains Holtec Proprietary information and is appropriately marked as such.
- (3) In making this application for withholding of proprietary information of which it is the owner, Holtec International relies upon the exemption from disclosure set forth in the Freedom of Information Act ("FOIA"), 5 USC Sec. 552(b)(4) and the Trade Secrets Act, 18 USC Sec. 1905, and NRC regulations 10CFR Part 9.17(a)(4), 2.390(a)(4), and 2.390(b)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 4). The material for which exemption from disclosure is here sought is all "confidential commercial information", and some portions also qualify under the narrower definition of "trade secret", within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, Critical Mass Energy Project v. Nuclear Regulatory Commission, 975F2d871 (DC Cir. 1992), and Public Citizen Health Research Group v. FDA, 704F2d1280 (DC Cir. 1983).



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- (4) Some examples of categories of information which fit into the definition of proprietary information are:
- a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by Holtec's competitors without license from Holtec International constitutes a competitive economic advantage over other companies;
  - b. Information which, if used by a competitor, would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product.
  - c. Information which reveals cost or price information, production, capacities, budget levels, or commercial strategies of Holtec International, its customers, or its suppliers;
  - d. Information which reveals aspects of past, present, or future Holtec International customer-funded development plans and programs of potential commercial value to Holtec International;
  - e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection.

The information sought to be withheld is considered to be proprietary for the reason set forth in paragraphs 4.a, above.

- (5) The information sought to be withheld is being submitted to the NRC in confidence. The information (including that compiled from many sources) is of



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a sort customarily held in confidence by Holtec International, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by Holtec International. No public disclosure has been made, and it is not available in public sources. All disclosures to third parties, including any required transmittals to the NRC, have been made, or must be made, pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence. Its initial designation as proprietary information, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in paragraphs (6) and (7) following.

- (6) Initial approval of proprietary treatment of a document is made by the manager of the originating component, the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge. Access to such documents within Holtec International is limited on a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by the staff manager, project manager, principal scientist or other equivalent authority, by the manager of the cognizant marketing function (or his designee), and by the Legal Operation, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside Holtec International are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary agreements.
- (8) The information classified as proprietary was developed and compiled by Holtec International at a significant cost to Holtec International. This information is classified as proprietary because it contains detailed descriptions of analytical



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approaches and methodologies not available elsewhere. This information would provide other parties, including competitors, with information from Holtec International's technical database and the results of evaluations performed by Holtec International. A substantial effort has been expended by Holtec International to develop this information. Release of this information would improve a competitor's position because it would enable Holtec's competitor to copy our technology and offer it for sale in competition with our company, causing us financial injury.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to Holtec International's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of Holtec International's comprehensive spent fuel storage technology base, and its commercial value extends beyond the original development cost. The value of the technology base goes beyond the extensive physical database and analytical methodology, and includes development of the expertise to determine and apply the appropriate evaluation process.

The research, development, engineering, and analytical costs comprise a substantial investment of time and money by Holtec International.

The precise value of the expertise to devise an evaluation process and apply the correct analytical methodology is difficult to quantify, but it clearly is substantial.

Holtec International's competitive advantage will be lost if its competitors are able to use the results of the Holtec International experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions.



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The value of this information to Holtec International would be lost if the information were disclosed to the public. Making such information available to competitors without their having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive Holtec International of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing these very valuable analytical tools.

STATE OF NEW JERSEY     )  
  )  
  )     ss:  
COUNTY OF BURLINGTON )

Evan Rosenbaum, being duly sworn, deposes and says:

That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at Marlton, New Jersey, this 24<sup>th</sup> day of March, 2009.

*Evan Rosenbaum*  
Evan Rosenbaum  
Holtec International

Subscribed and sworn before me this 24<sup>th</sup> day of March, 2009.

*Maria C. Massi*

MARIA C. MASSI  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires April 26, 2010

**Response to**

**Request for Additional Information No. 188**

**02/27/2009**

**U. S. EPR Standard Design Certification**

**AREVA NP Inc.**

**Docket No. 52-020**

**SRP Section: 09.01.01 - Criticality Safety of Fresh and Spent Fuel Storage and  
Handling**

**Application Section: 9.1.1**

**QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)**

**Question 09.01.01-3:**

Confirmatory criticality analyses are necessary to verify the acceptability of the spent fuel storage racks for the U.S. EPR. To perform these analyses, the minimum areal density for the B-10 isotope in the Metamic material in all regions of the spent fuel storage racks (SFSR) must be known. The supporting technical report does not specify the Metamic mass density and chemical form.

Provide a minimum areal density for the B-10 isotope for the Metamic material for all regions of the SFSR.

**Response to Question 09.01.01-3:**

The Metamic material is specified with a panel thickness and a weight percentage of B<sub>4</sub>C, not by areal density. The minimum panel thickness is [       ] inches. The minimum weight percentage of B<sub>4</sub>C is [       ] percent. An equivalent areal density can be calculated from these two parameters, giving a minimum B-10 areal density of [       ] gm/cm<sup>2</sup>.

**FSAR Impact:**

The U.S. EPR FSAR will not be changed as a result of this question.



**Question 09.01.01-4:**

In order to support confirmatory analyses, provide detailed design or fabrication drawings that fully define all necessary dimensions and tolerances of the spent fuel storage racks, particularly cross-sectional views of both the 8x10 and 10x10 rack designs.

**Response to Question 09.01.01-4:**

A copy of proprietary Holtec drawing 5752 Revision 0 is provided in a letter from Evan Rosenbaum (Holtec) to the NRC Document Control Desk, Doc # 1721002, "Response to U.S. EPR Design Certification Application RAI No. 188, Questions 09.01.01-4 and 09.01.01-5, Holtec Fuel Rack Input", dated March 30, 2009.

**FSAR Impact:**

The U.S. EPR FSAR will not be changed as a result of this question.

**Question 09.01.01-5:**

Provide sample MCNP decks used in the "Spent and New Fuel Storage Analyses for U.S. EPR" technical report. As a minimum, provide one deck each from the Region I and Region II analyses.

**Response to Question 09.01.01-5:**

MCNP input decks for both Region 1 and Region 2 analyses are provided in a letter from Evan Rosenbaum (Holtec) to the NRC Document Control Desk, Doc # 1721002, "Response to U.S. EPR Design Certification Application RAI No. 188, Questions 09.01.01-4 and 09.01.01-5, Holtec Fuel Rack Input", dated March 30, 2009.

**FSAR Impact:**

The U.S. EPR FSAR will not be changed as a result of this question.