



April 28, 2010
REL:10:011

U. S. Nuclear Regulatory Commission
Director, Office of Nuclear Material
Safety and Safeguards
Attn: Document Control Desk
Washington, D.C. 20555-0001

Gentlemen:

Subject: **RESPONSES TO NRC'S REQUEST FOR ADDITIONAL INFORMATION (RAI)
RELATED TO THE AREVA NP INC. SUPERCRITICAL CO2 SYSTEM LICENSE
AMENDMENT (TAC L32689)**

**Reference 1: Letter, R. L. Rodriguez, NRC Project Manager to R.E. Link, "Request For
Additional Information Pertaining To Analysis of Overpressurization Scenarios,
and Replacement Of A Configuration Control Item Relied Upon For Safety In The
Supercritical Carbon Dioxide License Amendment Application; License No.
SNM-1227, Docket No. 70-1257 (TAC L32689)", April 19, 2010**

Via Reference 1, the NRC requested additional information pertaining to AREVA's Supercritical CO₂ License Amendment Application.

Attached to this letter is a response to this request. Please note that attachments II and III contain proprietary information and AREVA requests that it be withheld from the public under Title 10 of the Code of Federal Regulations (10CFR), Section 2.390.

Please contact me on 509-375-8409 if you have questions or need additional assistance regarding this response.

Very truly yours,

Calvin D Manning for

R. E. Link, Manager
Environmental, Health, Safety & Licensing

/mah

Enclosures

cc: Mr. Rafael Rodriguez,
U.S. Nuclear Regulatory Commission
Fuel Manufacturing Branch
Mail Stop EBB-2-C-40
Rockville, MD 20852-2738

AREVA NP INC.

An AREVA and Siemens company

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AMSS01

**Attachment IV
P&ID Change Summary**

Change Description	Justification/Comment
Generic Changes on all Sheets	
Addition of sheets 8-16.	Normal detail additions made during process development and equipment installation. Sheets 13-16 incorporate plant equipment that was previously used with another process system that will now be used with system 186.
Additional valves, associated labeling, and control details	Normal detail additions made during process development and equipment installation.
Sheet 1	
N2 surge tank added	Normal detail change made during process development and equipment installation.
P-20 additional details	Normal detail change made during process development and equipment installation.
Sheet 2	
Rupture disk 721(on V-72) routes to exhaust instead of the top of V71	Normal detail change made during process development and equipment installation.
Added drains DR09, DR10, and DR11	Normal detail change made during process development and equipment installation.
Sheet 3	
pressure indicator P-621 shown twice. Incorrect one removed.	To correct inaccurate drawing
Sheet 4	
Added label to Raffinate Dump vessel	Normal detail additions made during process development and equipment installation.
Added label to UNH Dump vessel	Normal detail additions made during process development and equipment installation.
Added organic separators V-130 and V-140	Normal detail additions made during process development and equipment installation.
Sheet 5	
Hot Water surge tank V-111 added	Split hot water system into hot water and warm water systems..
Warm water surge tank V-121 added	Split hot water system into hot water and warm water systems..
Chiller # 2 added	Normal detail additions made during process development and equipment installation.
Sheets 6-7	
Feed line Heat Exchanger moved from sheet 5	Normal detail additions made during process development and equipment installation.
Increases details requiring a new sheet	Normal detail additions made during process development and equipment installation.
Sheet 8 (Old 7)	

Bucket lift changes	Normal detail additions made during process development and equipment installation.
V-blender is now a cylindrical vessel	Normal detail additions made during process development and equipment installation.
Added a dust collector to the offgas line	Normal detail additions made during process development and equipment installation.
Sheets 9-11 (new sheets)	
Extractor control details e.g. hoist position lights, lid location etc.	Normal detail additions made during process development and equipment installation.
Sheet 12 (new)	
Includes details on spend ash assay and discharge controls	Normal detail additions made during process development and equipment installation.
Sheets 13-16 (new sheets)	
	Normal detail additions made during process development and equipment installation.

ATTACHMENT V

STATE OF WASHINGTON)
): ss
COUNTY OF BENTON)

Calvin D. Manning, being duly sworn on oath, states as follows:

1. I am employed by AREVA NP Inc. (AREVA NP) as Manager, Nuclear Criticality in Richland, Washington. I am acting for the manager responsible for the overall administration of the safety programs at AREVA NP's Richland, Washington nuclear fuel fabrication facility, including regulatory licensing and permitting. This affidavit is based on my first hand, personal knowledge and is submitted in my capacity as acting Manager, Environmental, Health, Safety and Licensing.

2. I am familiar with the contents of the "Revised Responses to NRC's Request for Additional Information Regarding the Review of the AREVA NP Inc., Fuel Fabrication Facility Supercritical CO₂ License Amendment Application" package. Attachment III of this revised RAI response has been classified and designated as "Proprietary" by AREVA NP in accordance with the document control system and policies established by AREVA NP for the control and protection of proprietary and confidential information.

3. AREVA NP is engaged in the business of designing and manufacturing nuclear fuel assemblies for commercial nuclear reactors. Within the United States, there are two additional firms that design and manufacture nuclear fuel for commercial nuclear reactors and there are several other companies outside of the United States that engage in the same business as AREVA NP. Competition among these companies including AREVA NP is fierce and manufacturing costs of the nuclear fuel are critical to the maintenance of market share and to the growth of market share among utility customers.

4. Attachments II and III of the revised RAI response package contains commercial information of a confidential nature that is not available in public sources or available to the public. This information contained in the license amendment package is commercial and confidential because it:

- A. Reveals distinguishing aspects of AREVA NP's manufacturing processes by relating sequences of operations and/or sub-operations to optimize the efficiency and performance of manufacturing operations which a competitor within the field of nuclear fuel manufacturing may adapt for their own processes, reducing the competitor's expenditure of resources to achieve the same efficiencies, thereby gaining a competitive advantage to the disadvantage of AREVA NP.
 - B. Reveals the use of process chemical additives for the enhancement of chemical processes which are believed to be unique in the industry both in terms of type and application, which if revealed to a competitor would provide for an unfair competitive advantage by reducing any expenditure by the competitor to develop and test the same concepts.
 - C. Reveals aspects of privately funded development of process controls and parameters derived by AREVA NP over the course of optimizing the performance of waste treatment and other processes.
 - D. Reveals technical rationale developed by AREVA NP relating to plant layout, structure, process flow and other technical information which a competitor could readily use without expenditure of funds and replicate in its facilities thereby gaining a competitive advantage to the disadvantage of AREVA NP.
5. AREVA NP Inc. will suffer considerable competitive harm if the contents of the license amendment package are made available to AREVA NP domestic and international competitors. Finally, this material cannot be reasonably segregated from other material which may not meet the criteria set forth in 10 CFR § 2.390.

Dated this 28th day of April 2010.

Calvin D Manning 4/28/2010
Calvin D. Manning
Manager, Criticality Safety

STATE OF WASHINGTON)
 :
) ss
COUNTY OF BENTON)

On this 28th day of April, 2010, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Calvin D. Manning to me known to be the Manager, Criticality Safety of AREVA NP Inc., the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute the said instrument.

Witness my hand and official seal hereto affixed the day and year first above written.

Mary Anne Heilman

Mary Anne Heilman
Notary Public in and for the State of Washington, residing
at Kennewick, Washington.
MY COMMISSION EXPIRES: June 9, 2012

