



NUCLEAR ENERGY INSTITUTE

James H. Riley
PRINCIPAL ENGINEER
NUCLEAR GENERATION DIVISION

August 4, 2011

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

Subject: Revised Steam Generator Management Program Guidance: *Pressurized Water Reactor Secondary Water Chemistry Guidelines* and Interim Guidance Letter

Project Number: 689

The purpose of this letter is to transmit Revision 7 of the *EPRI Pressurized Water Reactor Secondary Water Chemistry Guidelines* and an interim guidance letter on the PWR Primary Water Chemistry Guidelines for your information and use.

The Secondary Water Chemistry guidelines contain proprietary information that is supported by the attached signed affidavit. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the consideration listed in paragraph (b)(4) of Section 2.390 of the Commission's regulations. Accordingly, we respectfully request that the information, which is proprietary to EPRI, be withheld from public disclosure in accordance with 10 CFR 2.390. A non-proprietary version of the guidelines is also enclosed.

The attached interim guidance letter is not proprietary. If there are any questions on these matters, please contact me (202-739-8137, jhr@nei.org).

Sincerely,

James H. Riley

Enclosures

c: Mr. Sheldon D. Stuchell, NRR/DPR/PLPB, NRC
Mr. Robert M. Taylor, NRR/DCI/CSGB, NRC
Mr. Emmett L Murphy, NRR/DCI/CSGB, NRC
Mr. Ken J. Karwoski, NRR/DCI, NRC

DO46
NRC

July 18, 2011

Document Control Desk
Office of Nuclear Reactor Regulation
One White Flint North 11555
Rockville, MD, 20852

Subject: Request for Withholding of the following Proprietary Document:

***[Pressurized Water Reactor Secondary Water Chemistry
Guidelines – Revision 7. EPRI Palo Alto, CA: 2009. 1016555.]***

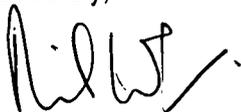
To Whom It May Concern:

This is a request under 10 C.F.R. §2.390(a)(4) that the U.S. Nuclear Regulatory Commission ("NRC") withhold from public disclosure the information identified in the enclosed Affidavit consisting of the proprietary information owned by Electric Power Research Institute, Inc. ("EPRI") identified above (the "Report"). Proprietary and non-proprietary versions of the Report and the Affidavit in support of this request are enclosed.

EPRI desires to disclose the Report in confidence as a means of providing the guidance document to the NRC. The Report is not to be divulged to anyone outside of the NRC or to any of its contractors, nor shall any copies be made of the Report provided herein. EPRI welcomes any discussions and/or questions relating to the information enclosed.

If you have any questions about the legal aspects of this request for withholding, please do not hesitate to contact me at (704) 595-2732. Questions on the content of the Report should be directed to Jim Benson of EPRI at (704) 595-2550.

Sincerely,



c: Sheldon Stuchell, NRC

AFFIDAVIT

RE: Request for Withholding of the Following Proprietary Document:

***[Pressurized Water Reactor Secondary Water Chemistry Guidelines –
Revision 7. EPRI Palo Alto, CA: 2009. 1016555.]***

I, Neil Wilmshurst, being duly sworn, depose and state as follows:

I am the Vice President and Chief Nuclear Officer at Electric Power Research Institute, Inc. whose principal office is located at 1300 W WT Harris Blvd, Charlotte North Carolina (“EPRI”) and I have been specifically delegated responsibility for the above-listed Report that is sought under this Affidavit to be withheld (the “Report”). I am authorized to apply to the U.S. Nuclear Regulatory Commission (“NRC”) for the withholding of the Report on behalf of EPRI.

EPRI requests that the Report be withheld from the public on the following bases:

Withholding Based Upon Privileged And Confidential Trade Secrets Or Commercial Or Financial Information:

a. The Report is owned by EPRI and has been held in confidence by EPRI. All entities accepting copies of the Report do so subject to written agreements imposing an obligation upon the recipient to maintain the confidentiality of the Report. The Report is disclosed only to parties who agree, in writing, to preserve the confidentiality thereof.

b. EPRI considers the Report and the proprietary information contained therein (the “Proprietary Information”) to constitute trade secrets of EPRI. As such, EPRI holds the Report in confidence and disclosure thereof is strictly limited to individuals and entities who have agreed, in writing, to maintain the confidentiality of the Report. EPRI made a substantial economic investment to develop the Report, and, by prohibiting public disclosure, EPRI derives an economic benefit in the form of licensing royalties and other additional fees from the confidential nature of the Report. If the Report and the Proprietary Information were publicly available to consultants and/or other businesses providing services in the electric and/or nuclear power industry, they would be able to use the Report for their own commercial benefit and profit and without expending the substantial economic resources required of EPRI to develop the Report.

c. EPRI's classification of the Report and the Proprietary Information as trade secrets is justified by the Uniform Trade Secrets Act which California adopted in 1984 and a version of which has been adopted by over forty states. The California Uniform Trade Secrets Act, California Civil Code §§3426 – 3426.11, defines a “trade secret” as follows:

“Trade secret” means information, including a formula, pattern, compilation, program device, method, technique, or process, that:

(1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and

(2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."

d. The Report and the Proprietary Information contained therein are not generally known or available to the public. EPRI developed the Report only after making a determination that the Proprietary Information was not available from public sources. EPRI made a substantial investment of both money and employee hours in the development of the Report. EPRI was required to devote these resources and effort to derive the Proprietary Information and the Report. As a result of such effort and cost, both in terms of dollars spent and dedicated employee time, the Report is highly valuable to EPRI.

e. A public disclosure of the Proprietary Information would be highly likely to cause substantial harm to EPRI's competitive position and the ability of EPRI to license the Proprietary Information both domestically and internationally. The Proprietary Information and Report can only be acquired and/or duplicated by others using an equivalent investment of time and effort.

I have read the foregoing and the matters stated herein are true and correct to the best of my knowledge, information and belief. I make this affidavit under penalty of perjury under the laws of the United States of America and under the laws of the State of California.

Executed at 1300 W WT Harris Blvd being the premises and place of business of Electric Power Research Institute, Inc.

Date: 7-18-2011

Neil Wilms
Neil Wilms

(State of North Carolina)
(County of Mecklenburg)

Subscribed and sworn to (or affirmed) before me on this 18th day of July, 2011, by Neil Wilms, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature Sherryl B. Stogner (Seal)

My Commission Expires 25th day of August, 2014.

Date: May 9, 2011

To: SGMP Technical Advisory Group
PMMP Executive Committee

Subject: SGMP-IG-11-02, Interim Guidance Regarding *PWR Primary Water Chemistry Guidelines – Volume 1, Revision 6*. EPRI, Palo Alto, CA: 2007. 1014986.

Purpose:

The purpose of this Interim Guidance is to inform SGMP members of a change to Table 3-3 of the subject Guidelines. This Interim Guidance modifies an existing “shall” requirement that could allow stations an option to increase the maximum reactor coolant system dissolved hydrogen concentration Action Level 1 value from 50 up to 60 cc(STP)/kg H₂O.

The *PWR Primary Water Chemistry Guidelines – Volume 1, Revision 6* (1014986) require plant operation (reactor critical) with RCS hydrogen levels between 25 - 50 cc(STP)/kg H₂O, with a recommendation to operate in the upper part of this range. With the current upper limit of 50 cc(STP)/kg H₂O, plants are challenged with achieving this recommendation due to the potential to enter into the Action Level 1 condition if the RCS hydrogen exceeds 50 cc(STP)/kg H₂O. This interim guidance provides plants with the option to pursue a plant-specific Action Level 1 RCS hydrogen upper limit (reactor critical) in the range of 50 – 60 cc(STP)/kg H₂O with a target value of ≤ 50 cc(STP)/kg H₂O.

Change to Guideline Document:

Add footnote 11 to Table 3-3 of the *PWR Primary Water Chemistry Guidelines – Volume 1, Revision 6* (1014986) in the following manner.

Control Parameter	Sample Frequency	Action Level 1	Action Level 2	Action Level 3
Hydrogen, cc(STP)/kg H ₂ O	3/wk ^(6,10)	<25 ⁽⁷⁾ >50 ⁽¹¹⁾	<15 ⁽⁸⁾	<5

11. Plants may establish a plant specific Action Level 1 upper limit value in the range of 50 – 60 cc(STP)/kg H₂O, provided that the proper technical basis is established in plant program documents, including the following conditions:
- a) Necessary materials, safety and operability evaluations are performed as determined by appropriate plant personnel
 - b) Fuel vendor concurrence is obtained
 - c) A target value of ≤ 50 cc(STP)/kg H₂O hydrogen is applied

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Date: May 9, 2011

To: SGMP Technical Advisory Group
PMMP Executive Committee

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Implementation:

Licenseses shall incorporate the interim guidance into their steam generator programs within 6 months of the date of this letter. If a plant's refueling outage is less than six months away from the date of this letter, the utility may delay incorporating the interim guidance for an additional three months. This interim guidance remains in effect until the next revision of the *PWR Primary Water Chemistry Guidelines – Volume 1*.

Bibliography:

1. *Technical Basis for the Chemical Mitigation of Primary Water Stress Corrosion Cracking in Pressurized Water Reactors (MRP-263)*, EPRI, Palo Alto, CA: 2009. 1019082.
2. *Evaluation of Altering the Hydrogen Concentration for Mitigation of Primary Water Stress Corrosion Cracking*, EPRI, Palo Alto, CA: 2007. 1015017.
3. *Elevated Hydrogen Management for Three Mile Island Unit 1*. EPRI, Palo Alto, CA: 2010. 1022290.
4. *Assessment of the Effect of Elevated Reactor Coolant Hydrogen on the Performance of PWR Zr-Based Alloys*. EPRI, Palo Alto, CA: 2006. 1013522.

If you have any questions, please contact Joel McElrath at 650-714-4557 or by email jmcelrath@epri.com.

Sincerely,



Jim Lash
President and Chief Nuclear Officer, FENOC
PMMP Executive Committee Chair

cc: SGMP IC
SGMP TS TAC
Jim Riley, NEI
Jeff Ewin, INPO
Randy Crane, INPO
Joe Sears, INPO
David Steininger, EPRI
James Benson, EPRI

Heather Feldman, EPRI
Keith Fruzzetti, EPRI
Carey Haas, EPRI
Joel McElrath, EPRI
Jeff Deshon, EPRI
Rick Reid, EPRI
Anne Demma, EPRI