



Program Management Office
4350 Northern Pike
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May 6, 2008

PSAT 4025CF.QA.04 Rev. 0
Project Number 694

OG-08-165

U. S. Nuclear Regulatory Commission
Document Control Desk and Chief Financial Officer
Washington, DC 20555-0001

Subject: PWR Owners Group

**Submission of PSAT 4025CF.QA.04 Rev. 1, "StarFIRE Model Report"
(Proprietary), PA-ASC-302**

The Pressurized Water Reactor Owners Group (PWROG) hereby submits Polestar Applied Technology, Inc proprietary report PSAT 4025CF.QA.04 Rev. 1, "StarFIRE Model Report" for review and approval. Enclosed are four (4) proprietary and four (4) non-proprietary copies of PSAT 4025CF.QA.04. The objective of PSAT 4025CF.QA.04 is to propose an improved analysis methodology to estimate the release of gaseous iodine into the environment as a fraction of the released iodine in Engineered Safety Features (ESF) leakage. To assist the NRC in the review of PSAT 4025CF.QA.04 Rev. 1, the StarFIRE Software program, PSAT 4025.QA.08, Rev. 1, and three supporting StarFIRE reports, "StarFIRE User's Manual," PSAT 4025CF.QA.07 Rev. 1, "StarFIRE Programming Report," PSAT 4025CF.QA.05, Rev. 0, and "StarFIRE Validation Report," PSAT 4025CF.QA.006, Rev. 0, are also enclosed. The StarFIRE Software program and supporting StarFIRE reports are also proprietary to Polestar Applied Technology Inc.

Request for Review Fee Waiver

The PWROG requests that a waiver of NRC fees associated with the review of PSAT 4025CF.QA.04 pursuant to the provisions of 10 CFR 170.11(a)(1)(iii) be approved. The proposed method presented in PSAT 4025CF.QA.04 concerning the evaluation of iodine re-evolution fraction from ESF leakage can be utilized by the NRC for the specific purpose of supporting NRC's improvement of generic guidelines and regulations. Specifically, improvements can be made to Appendix A to RG 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors." RG 1.183 provides a conservative value of 10 percent as the assumed amount of iodine that may become airborne from ESF leakage and that a smaller flash fraction can be used if justified. Regulatory Information Summary, 2006-04, "Experience with Implementation of Alternative Source Terms," states that NUREG/CR-5950, "Iodine Evolution and pH Control," can be used to justify a smaller flash fraction but warns that NUREG/CR-5950 was developed for very specific laboratory conditions and the results

have a degree of uncertainty associated with the mechanism for release from ESF fluid. PSAT 4025CF.QA.04 provides an improved treatment of release fraction associated with the re-evolution of iodine from ESF leakage that addresses these concerns as well as comments received from the NRC staff at the pre-submittal meeting on October 29, 2007. The NRC will be the primary beneficiary of this effort in support of their mission to pursue generic regulatory improvement.

Approval of PSAT 4025CF.QA.04 would help the NRC achieve consistency in regulatory response to licensee request for iodine airborne fractions less than 10%. For example, Indian Point 2 received approval to use a smaller airborne fraction in an Amendment dated October 27, 2004 (ML042960007). Indian Point 3's Amendment dated March 22, 2005 used a similar method and had to increase the airborne fraction to 10% as a result of staff comments (ML050750431).

Review and acceptance of PSAT 4025CF.QA.04 would allow the NRC to improve RG 1.183 and the guidance provided in RIS 2006-04. Improving RG 1.183 and the guidance provided in RIS 2006-04 would address the issue of licensees misapplying NUREG/CR-5950 as cited in RIS 2006-04 and would help the NRC achieve consistency in regulatory response to licensee requests for iodine airborne fractions less than 10%.

Consistent with Office of Nuclear Reactor Regulation, Office Instruction LIC-500, "Processing Request for Reviews of Topical Reports", the PWROG requests a review fee waiver decision within 45 days of receipt of PSAT 4025CF.QA.04. Should the NRC decide not to approve the request for fee waiver as requested, the PWROG will notify the NRC in writing as to whether the PWROG will pay the associated review fees or withdraw PSAT 4025CF.QA.04 from NRC review. The PWROG will not assume the responsibility of NRC review fees during the fee waiver decision period if the fee waiver is not approved.

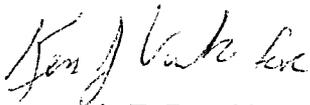
Also enclosed is a Polestar Applied Technology affidavit that sets forth the basis on which the proprietary information contained in the above Polestar documents and software may be withheld from public disclosure by the Commission and specifically addresses the considerations listed in Section 2.390, paragraph (b)(4), of the Commission's regulations. Accordingly, it is respectfully requested that this information which is proprietary to Polestar Applied Technology be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations. ***Correspondence with respect to the proprietary information or the supporting affidavit should be addressed to Mr. Dave Leaver, Principal, Polestar Applied Technology Inc., a Division of WorleyParsons, 1 First Street Suite 4, Los Altos, CA 94022.***

Consistent with the Office of Nuclear Reactor Regulation, Office Instruction LIC-500, "Processing Request for Reviews of Topical Reports," the PWROG requests that the NRC provide target dates for any Request(s) for Additional Information and for issuance of the Safety Evaluation for PSAT 4025CF.QA.04 Rev. 1, and estimated review hours should the above request for fee waiver be denied. ***Correspondence related to this transmittal of PSAT***

4025CF.QA.04 Rev. 1 should be addressed to Mr. Gordon Bischoff, Manager, Owners Group Program Management Office, Westinghouse Electric Company, Mail Stop ECE 5-16, P. O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

If you have any questions, please do not hesitate to contact me at (254) 897-5851 or Mr. Ken Vavrek in the PWR Owners Group Program Management Office at (412) 374-4302.

Sincerely yours,



Dennis E. Buschbaum, Chairman
PWR Owners Group

DEB:KJV:sv

Enclosures: PSAT 4025CF.QA.04 Rev. 1, StarFIRE Model Report (Proprietary) (4 copies)
PSAT 4025CF.QA.04 Rev. 1, StarFIRE Model Report (Non-Proprietary) (4 copies)
PSAT 4025.QA.08, Rev. 1, StarFIRE Software Program (Proprietary)*
PSAT 4025CF.QA.07 Rev. 1, StarFIRE User's Manual (Proprietary)*
PSAT 4025CF.QA.05, Rev. 0, StarFIRE Programming Report (Proprietary)*
PSAT 4025CF.QA.06, Rev. 0, StarFIRE Validation Report (Proprietary)*
Polestar Applied Technology Inc Affidavit (original)

* Not available via PWROG website. Only available directly from Polestar Applied Technology to participating members in PA-ASC-302 Rev. 0 with a signed software license agreement.

cc: PWROG Management Committee (PA-ASC-302 Members only)
PWROG Analysis Subcommittee (PA-ASC-302 Members only)
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