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November 03, 1999

1920-99-20579

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Ladies and Gentlemen:

Subject: Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Response to Request for Additional Information – Corrected
Affidavit Technical Specification Change Request No. 272
Reactor Coolant System Activity

This letter provides a corrected Polestar Applied Technology, Inc. Affidavit certifying the proprietary nature of the NRC question responses previously submitted in Attachment I of GPU Nuclear letter to the NRC, dated September 2, 1999 (1920-99-20447). The attached Polestar Applied Technology, Inc. Affidavit replaces Attachment III of the above-referenced GPU Nuclear letter.

If any additional information is needed, please contact Mr. David J. Distel, Nuclear Licensing and Regulatory Affairs at (973) 316-7955.

Sincerely,

A handwritten signature in black ink that reads "James W. Langenbach". The signature is written in a cursive style.

James W. Langenbach
Vice President and Director, TMI

/DJD

Attachment

cc: Administrator, Region I
TMI-1 Senior Project Manager
TMI-1 Senior Resident Inspector
File 98076

A001

Polestar Applied Technology, Inc.

AFFIDAVIT

I, David E.W. Leaver, being duly sworn, depose and state as follows:

- (1) I am a Principal and an Officer of Polestar Applied Technology, Inc. ("Polestar") and am responsible for the function of reviewing the information described in paragraph (2) which is sought to be withheld, and have been authorized to apply for its withholding.
- (2) The information sought to be withheld is contained in portions of the following Polestar report prepared for GPUN in support of a response to an NRC Request for Additional Information (RAI) on the GPUN application of iodine behavior insights on iodine retention in the secondary side of once through steam generators (OTSG) for the design basis iodine spiking accident for the Three Mile Island Unit 1 Nuclear Plant:

Attachment 2 - Non-QA Response to RAIs (RAI based on NRC review of GPU Nuclear letter to the NRC dated October 19, 1998 (1920-98-20210) titled, "Technical Specification Change Request (TSCR) No. 272"
- (3) In making this application for withholding of proprietary information of which it is the owner, Polestar relies upon the exemption from disclosure set forth in the NRC regulations 10 CFR 9.17(a)(4), 2.790(a)(4), and 2.790(d)(1) for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (Exemption 2.790(a)(4)). The material for which exemption from disclosure is here sought is all "confidential commercial information".
- (4) Some examples of categories of information which fit into the definition of proprietary information are:
 - a. Information that discloses a process or method, including supporting data and analyses, where prevention of its use by Polestar's competitors without license from Polestar constitutes a competitive economic advantage over other companies.
 - b. Information which, if used by a competitor, would significantly reduce his expenditure of resources or improve his competitive position in the analysis, design, 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 Polestar, its customers, or its suppliers;
- d. Information which reveals aspects of past, present, or future Polestar customer-funded development plans and programs, of potential commercial value to Polestar;
- 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 reasons set forth in both paragraphs (4)a and (4)b, above.

- (5) The information sought to be withheld is being submitted to GPUN (and, we trust, to NRC) in confidence. The information is of a sort customarily held in confidence by Polestar, 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 Polestar, no public disclosure has been made, and it is not available in public sources. All disclosures to third parties including any required transmittals to 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. Distribution of such documents within Polestar is limited to those with a need to know.
- (7) The approval of external release of such a document typically requires review by the project manager, and the Polestar Principal closest to the work, for technical content, competitive effect, and determination of the accuracy of the proprietary designation. Disclosures outside Polestar 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 identified in paragraph (2), above, is classified as proprietary because it directly relates to a methodology developed by Polestar and applied under the Polestar 10 CFR 50, Appendix B Quality Assurance Program. The methodology addresses iodine (as I₂) retention in the secondary side of the OTSG

during the design basis iodine spiking accident for the Three Mile Island Unit 1 Nuclear Plant. The RAI addresses the post-flash liquid droplet behavior on the secondary side of the steam generator and the evaporation to dryness aspect of the methodology. Iodine retention on the secondary side of the steam generator has not traditionally been considered in USNRC licensing design basis calculations, and thus new methods development was required, including methods to address the post-flash liquid droplet behavior and evaporation to dryness.

The methodology used in the Three Mile Island calculations is one of a number of Polestar developed methods, models, and codes. Development of these methods, models, and codes was achieved at a significant cost to Polestar, on the order of \$100,000, which is a significant fraction of internal research and development resources available to a company the size of Polestar.

The development of the methods, models and codes, along with the interpretation and application of the results, is derived from the extensive experience database that constitutes a major Polestar asset.

- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to Polestar's competitive position and foreclose or reduce the availability of profit-making opportunities. The information is part of Polestar's comprehensive technology base on application of the revised source term to operating plants and advanced light water reactors, 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. In addition, the technology base includes the value derived from providing analyses done with methods which have been developed and are being maintained in accordance with 10 CFR 50, Appendix B requirements.

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

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.

Polestar's competitive advantage will be lost if its competitors are able to use the results of the Polestar 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.

The value of this information to Polestar 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 Polestar of the opportunity to exercise its competitive advantage to seek an adequate return on its relatively large investment in developing these very valuable analytical tools.

STATE OF CALIFORNIA)
)
COUNTY OF SANTA CLARA) ss:

David E.W. Leaver, is being duly sworn, deposes and says:

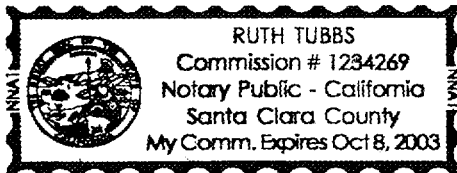
That he has read the foregoing affidavit and the matters stated therein are true and correct to the best of his knowledge, information, and belief.

Executed at Los Altos, California, this 12th day of October 1999.

David E.W. Leaver

David E.W. Leaver
Polestar Applied Technology, Inc.

Subscribed and sworn before me this 12th day of October 1999.



Ruth Tubbs
Notary Public, State of California