July 17, 2000

MEMORANDUM TO: Edmund J. Sullivan, Jr., Chief
NDE & Metallurgy Section
Materials and Chemical Engineering Branch
Division of Engineering

FROM: Donald G. Naujock, Metallurgist ***/ra by DGN/***
NDE & Metallurgy Section
Materials and Chemical Engineering Branch
Division of Engineering

SUBJECT: SUMMARY OF PUBLIC MEETING HELD ON JUNE 27 AND 28, 2000, WITH PDI REPRESENTATIVES

On June 27 and 28, 2000, the staff participated in a public meeting with representatives from the Electric Power Research Institute (EPRI) - Performance Demonstration Initiative (PDI) program at EPRI Nondestructive Examination (NDE) Center in Charlotte, North Carolina. The purpose of the meeting was to discuss the implementation of Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems," Section XI of the American Society of Mechanical Engineers, Boiler and Pressure Vessel Code (Code) as administered by the PDI program and discuss options for reconciling current licensee programs and 10 CFR 50.55a(b)(2)(xiv), (xv), and (xvi). The participants for the staff were Don Naujock (NRR), and Terence Chan (NRR); the participants for PDI were Larry Becker, Carl Latiolais, Adam Conti, and Mike Gothard; participants for licensees were Frank Leonard (Tennessee Valley Authority), James McArdle (Duke Power), and Steven Mortenson, (General Electric Nuclear Energy).

A PDI representative began the meeting with an overview of the agenda that was followed by topical presentations. The presentations outlined PDI's approach for implementing selected supplements to Appendix VIII and for implementing the modifications to Appendix VIII contained in 10 CFR 50.55a(g)(6)(ii)(C) and 50.55a(b)(2)(xiv), (xv), and (xvi). The meeting agenda is Attachment 1. Handouts for the agenda items are provided in Attachments 2 through 6.

Attachment 2, "Guideline for the Implementation of Appendix VIII and 10 CFR 50.55a," described the PDI program, questions and PDIs' answers from the January 2000 workshop, and PDI generated generic relief requests for selected items. PDI summarized Attachment 2 in viewgraph format in Attachment 3. The staff expressed concerns with respect to treatment of IWA-2240. One concern is that IWA-2240 may inadvertently be used to circumvent the requirements for an alternative as provided in 10 CFR 50.55a(a)(3). The staff provided the example of reduced examination coverage as an application outside the scope of IWA-2240.

The guideline contained 8 generic relief requests. The staff identified several shortcomings with these requests. The requests needed to clearly describe their technical basis, stipulate an effective period or implementing time period, and describe the proposed alternative in more detail. PDI agreed to revise the generic relief requests to address the staff's observations.

Attachment 4, “RPV Single Side Access,” presented PDI’s concept for satisfying the testing requirements for single side vessel examinations. PDI will use a flat specimen with multiple flaws for the open test to demonstrate the procedure. PDI’s administrator will evaluate the test results to determine if the procedure can effectively detect/size the flaws in the specimen. PDI requested the staff to review their approach for implementing RPV single side access testing and to express any concerns pertaining to the test specimens by early August 2000. The staff asked PDI to provide a detailed program document for assessment.

PDI also asked how to handle reactor pressure vessel welds that receive limited coverage of the inner 15% weld volume. The staff responded that if total weld coverage is below “essentially 100%” (90% or greater) coverage, a request for relief would be necessary.

Attachment 5, “PDI Approach to Dissimilar Metal Qualification,” presented PDI’s approach for satisfying the testing requirements for dissimilar metal pipe welds. PDI is in the process of identifying the essential material parameters in order to group industry weld/joint configurations. PDI requested the staff to review their concept for implementing dissimilar metal pipe weld qualifications and to express any concerns pertaining to the test specimens by early September 2000. PDI will start ordering test specimens in early September 2000. The staff asked PDI to provide a program document for implementing Supplement 10 to Appendix VIII and the technical basis for their configuration groupings and flaw selections.

Attachment 6, “Supplement 11 PDI Overlay Development Program,” presented PDI’s approach for satisfying the testing requirements for weld overlay. PDI would like to use current test specimens and acquire additional specimens with larger and smaller diameters. Installing flaws in the new specimens is creating a challenge. PDI discussed several options for creating flaws in test specimens. One option is to use electrical discharge machined (EDM) notches. However, EDM notches do not satisfy Code requirements which states that all flaws must be cracks. PDI requested the staff to review their concept for implementing weld overlay qualifications and to express any concerns pertaining to the test specimens by early September 2000. The staff asked PDI to provide a program document for implementing Supplement 11 to Appendix VIII and the technical basis for their flaw designs/selections.

PDI requested a follow-up meeting or phone call to resolve as many of the outstanding issues as possible before their workshop for licensee personnel that is scheduled to start July 17, 2000.

Attachments: As stated

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