

From: Nove, Carol
To: ["mturnbow@comcast.net"](mailto:mturnbow@comcast.net)
Cc: [Weber, Michael](#); [Hackett, Edwin](#); [Thomas, Brian](#); [Rudland, David](#)
Bcc: [Nove, Carol](#)
Subject: FW: ACTION - NDE Performance Issues and New ASME/ANDE-1 Standard
Date: Tuesday, January 10, 2017 10:58:00 AM

Dear Mike,

I am responding at the request of the RES front office management. I apologize for the delay in getting back to you on your request. As you note below, in response to the NDE-related "events" at U.S. nuclear power plants, RES organized a panel of internationally recognized NDE experts from within and outside the nuclear industry to discuss the potential effects these issues may be having on overall NDE reliability. Under contract to RES, staff at Pacific Northwest National Laboratory developed a White Paper to provide this expert panel with summaries of the NDE events as well as a discussion of shortcomings associated with the events. The expert panel met by teleconference approximately once per month for 8 months, discussed the issues and event summaries identified in the white paper, and developed their findings and conclusions. Several documents associated with the NDE Expert Panel were developed, and are now publicly available at ADAMS Accession Number ML16306A347. The documents include:

- The Charter of the Nondestructive Examination (NDE) Expert Panel
- White Paper on Improving the Effectiveness and Reliability of Nondestructive Examination
- Findings and Conclusions of the NDE Expert Panel
- Independent Assessment from Outside the Industry – Comments from Panel Member, Ward Rummel, transmitted to NRC via email on December 13, 2013

We hope these documents will be helpful to you, and wish your ANDE committee continued success on the development of ANDE. Should you need additional information, please feel free to contact me.

Best regards,
Carol

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From: Michael Turnbow [<mailto:mturnbow@comcast.net>]
Sent: Sunday, January 08, 2017 9:53 PM
To: Weber, Michael <Michael.Weber@nrc.gov>
Cc: Rudland, David <David.Rudland@nrc.gov>; OPA Resource <OPA.Resource@nrc.gov>
Subject: [External_Sender] Re: NDE Performance Issues and New ASME/ANDE-1 Standard

Dear Mr. Weber,

I am contacting you with regard to my letter to you dated August 15, 2016, concerning a draft report that has been developed detailing an NRC/PNNL assessment of industry reported nondestructive examination (NDE) deficiencies associated with required inspections of certain safety-related piping. You forwarded my letter to David Rudland for action. I met with Mr. Rudland and Ms. Carol Nove on August 23, 2016, to discuss the purpose of requesting a copy of the report. On September 7, 2016, I received an email from Mr. Rudland indicating that the report would be finalized in about a month. I spoke to Ms. Nove on November 8, 2016, at the American Society of Mechanical Engineers (ASME) Code meetings in St. Louis where she indicated the report had been further delayed, but it was expected that the report would be published by December 2016. I have not recently been contacted and am concerned in that NRC staff first indicated that the report would be available in spring 2015.

As I indicated in my letter to you, I believe the information contained in this report is very important. The ASME's Nondestructive Examination (ANDE) technical committee has been tasked with addressing shortcomings in the industry's nondestructive examination (NDE) personnel qualification and certification (PQ&C) practices. In recent years, NRC staff from the Office of Nuclear Reactor Regulation and Office of Nuclear Regulatory Research made presentations to various industry groups regarding the scope of the NRC/PNNL assessment and the intent of the report. As summarized in the presentations, NRC staff in conjunction with NDE experts at PNNL assessed 13 industry-reported events where significant shortcomings had occurred with respect to the NDE of safety-related piping. The staff used licensee-developed publicly available reports for this assessment. As indicated in the presentations, there had been a number of serious NDE-related deficiencies reported over a short time, and it was thought by the staff that an assessment might reveal fundamental commonalities (lessons learned) with respect to the deficiencies. As summarized in the presentations, the assessment revealed many common, related deficiencies that could be addressed through a more systematic and performance-based approach such as the ANDE standard. The 13 events and the preliminary findings in the NRC presentations were subsequently reviewed by INPO, and INPO indicated in a presentation to the industry its fundamental agreement with the NRC/PNNL assessment. Unfortunately, the report developed by INPO is not publicly available. Thus, the ASME does not have access to the report and cannot use its findings as a basis for improving current NDE practices to address the deficiencies. As also summarized in the NRC presentations, the staff convened a panel of international NDE experts. The NDE Expert Panel had three primary objectives: review the NRC/PNNL preliminary findings on certain events, assess to the extent practicable the NDE as applied by the licensee/vendor in each event, and describe NDE practices in other industries. Thus, as described in the staff presentations, there are two sections to the report: the assessment of the 13 events, and the evaluation of the NDE expert panel.

The ANDE committee recently reached a milestone with the ASME approval of a qualification card process designed to assure that a candidate gains sufficient and appropriated experience in the NDE performance areas applicable to nuclear power plant fabrication, construction, and in-service inspection. The qualification card process will ensure that an applicant has gained the requisite skills through a test of proficiency. Based on the information provided by NRC staff in those presentations, it is believed that the information in the report will be vital to tailoring the qualification process training to address the present shortcomings.

If you have any questions, I can be reached at (423-637-9775) or mlturnbow@comcast.net.

Respectfully submitted,
Michael L. Turnbow
Chairman, ASME/ANDE
Nuclear Sector Committee

From: Michael Turnbow <mlturnbow@comcast.net>

Date: Monday, August 15, 2016 at 10:40 AM

To: <michael.weber@nrc.gov>

Subject: NDE Performance Issues and New ASME/ANDE-1 Standard

Mr. Weber,

Please find attached letter and 4 associated attachments relative to NRC concerns about Nondestructive Examination personnel performance, NRC report and publication date on NDE-related events, and industry actions for improvement.

After your review please feel free to contact me at mlturnbow@comcast.net or 423-637-9775.

Regards,
Michael L. Turnbow
Chairman, ASME/ANDE
Nuclear Sector Committee