

**NRC Report
February 2011**

1. Amendment to 10 CFR 50.55a – ASME Code Edition/Addenda

A proposed rule was published in the Federal Register on May 4, 2010 (75 FR 24324). The proposed amendment to 10 CFR 50.55a would incorporate by reference:

- The 2005 Addenda through 2008 Addenda of Section III, Division 1, and Section XI, Division 1, of the *Boiler and Pressure Vessel Code*;
- The 2005 Addenda and 2006 Addenda of the *Code for Operation and Maintenance of Nuclear Power Plants*;
- Code Case N-722-1, "Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated With Alloy 600/82/182 Materials Section XI, Division 1;" and
- Code Case N-770, "Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated with UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of Listed Mitigation Activities, Section XI, Division 1."

The rule would also:

- clarify which portions of Section III are approved for use by applicants and licensees
- identify which portions of Section III are NRC requirements, and which portions of Section III are not required to be implemented by 10 CFR 50.55a
- substitute the word "condition(s)" for the words "limitation(s)" "modification(s)" and "provision(s)" throughout 50.55a for consistency
- clarify the time frame for licensees to submit requests for relief based on impracticality for IST and ISI
- allow the use of 1994 Edition of NQA-1, "Quality Assurance Requirements for Nuclear Facility Applications," when using the 2006 Addenda of Section III of the ASME B&PV Code and later editions and addenda.

Finally, the NRC also requested comments on what the scope of the ASME B&PV Code edition and addenda rulemaking should be; how often the NRC should incorporate Code editions and addenda into 10 CFR 50.55a; and in what ways the NRC should communicate the scope, schedule for publishing the rulemakings in the Federal Register, and status of the 10 CFR 50.55a rulemakings to external users.

The public comment period closed on July 19, 2010, and the NRC received 22 public comment letters. The NRC is evaluating the comments. The final rule is scheduled for publication in June 2011.

2. ASME Code Case Rulemaking/Regulatory Guides

On October 5, 2010, Regulatory Guide 1.84, Revision 35, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III," and Regulatory Guide 1.147, Revision 16, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," were issued as final guides (75 FR 61530). The guides address Code Cases from Supplement 2 to the 2004 Edition through Supplement 0 to the 2007 Edition (Supplement 0, 2007 Edition also serves as Supplement 12 to the 2004 Edition).

On October 5, 2010, Regulatory Guide 1.193, Revision 3, "ASME Code Cases Not Approved for Use," was issued as a final guide (75 FR 61531).

On October 5, 2010, the final rule that incorporated Regulatory Guide 1.84, Revision 35, and Regulatory Guide 1.147, Revision 16, by reference into 10 CFR 50.55a was also issued (75 FR 61321).

The NRC staff has completed its review of Supplements 1 – 11 to the 2007 Edition. Draft Revision 36 to RG 1.84, draft Revision 17 to RG 1.147, draft Revision 2 to RG 1.192, and draft Revision 4 to RG 1.193 have been reviewed by the cognizant NRC offices. The draft guides will address Supplements 1 – 10 to the 2007 Edition. The current schedule for publication of the proposed rulemaking to incorporate the guides by reference into 10 CFR 50.55a is March 2011.

The staff plans to address the issues raised by Raymond A. West in a petition for rulemaking dated December 14, 2007, and revised on December 19, 2007, in the proposed rulemaking for Revision 17 of Regulatory Guide 1.147. It should be cautioned, however, that the proposed rulemaking is still under review and thus subject to change.

3. Risk-Informed Activities

The Standards Committee on Nuclear Inservice Inspection (Section XI) has been considering a revision to Code Case N-716. The NRC has been reviewing EPRI Topical Report 1018427, "Nondestructive Evaluation: PRA Technical Adequacy Guidance for RI-ISI Programs," that was developed, in part, as a technical support document for the Code Case. Given that the topical report was still under review, the NRC staff representative to Section XI disapproved the proposed revision when it was considered by the committee.

The staff has completed its review of the topical report and is currently developing a report on its findings. The staff's report will be available mid-2011. While any information relative to final positions on the topical are still considered preliminary, it can be reported that the NRC will request a small number of changes to the topical, and final approval will be conditional on those changes being incorporated into the revised topical.

4. Generic Activities on Material Degradation/PWR Alloy 600/182/82 PWSCC

In 2006 ASME started the development of a Code Case for inspection of Alloy 82/182 butt welds. Code Case N-770 was developed to address inspection of these welds, and the NRC included the Code Case in the recently published proposed amendment to 10 CFR 50.55a (see

#1 above). NRC staff are currently reviewing public comments on the proposed rule to address NRC conditions and the inclusion of ASME Code Case N-770-1 in lieu of N-770 in the final rule.

The NRC staff continues to monitor and evaluate operating experience to ensure that the current inspection schedules are adequate.

The staff developed Regulatory Issue Summary 2010-07, "Regulatory Requirements for Application of Weld Overlays and Other Mitigation Techniques in Piping Systems Approved for Leak-Before-Break," to remind licensees of the potential need to review and update LBB analyses for welds that may have been mitigated to prevent or arrest PWSCC.

On October 28, 2010, the NRC facilitated an all-day public meeting regarding Regulatory Issue Summary 2010-07, "Regulatory Requirements for Application of Weld Overlays and Other Mitigation Techniques in Piping Systems Approved for Leak-Before-Break". The purposes of the meeting were (1) for the NRC to provide additional clarification on the RIS, (2) for various vendors to present their LBB analysis methodologies of overlaid Alloy 82/182 dissimilar butt welds on LBB piping, and (3) for the NRC and industry to discuss the possibility of a generic LBB analysis methodology. NRC meeting slides are available under Agencywide Documents Access and Management System (ADAMS) Accession No. ML102990273. The meeting summary is available under ADAMS accession number ML103210215. Subsequent to the meeting, industry decided not to pursue a generic LBB analysis methodology.

5. New Reactor Licensing Activities

The New Reactor Licensing public web-site [<http://nrr10.nrc.gov/NRO/new-rx-status/index.cfm>] has a list of expected new nuclear power plant applications, and an estimated schedule by fiscal year for new reactor licensing applications.

New Reactor Licensing Status

As of January 31, 2011, the status of new reactors licensing under 10 CFR Part 52 is as follows:

Design Certification

NRC has issued four design certifications to date (ABWR, System 80+, AP-600, and AP-1000). These are certified in 10 CFR Part 52, Appendices A, B, C, and D, respectively. The NRC is currently reviewing four design certifications:

- General Electric-Hitachi's ESBWR (first passive BWR)
- AREVA's EPR (evolutionary pressurized-water reactor)
- Mitsubishi Heavy Industries' US-APWR (advanced pressurized water reactor)
- AP-1000 Revision 17 (first amended design certification)

In addition, on November 2, 2010, Toshiba submitted its application to renew the Advanced Boiling Water Reactor (ABWR) design certification pursuant to 10 CFR 52.59. On December 8, 2010, GE-Hitachi submitted its application to renew the ABWR design

certification. Each application will be treated as a separate design certification renewal application for the ABWR.

On January 20, 2011, the NRC issued a proposed rule in the Federal Register (76 FR 3540) to amend its regulations to certify an amendment to the U.S. ABWR standard plant design to comply with the NRC's aircraft impact assessment (AIA) regulations. This action would allow applicants or licensees intending to construct and operate a U.S. ABWR to comply with the NRC's AIA regulations by referencing the amended design certification rule. The applicant for certification of the amendment to the U.S. ABWR design is STP Nuclear Operating Company. The public is invited to submit comments on this proposed rule. The public is also invited to comment on the NRC's proposed approach for treating multiple suppliers of a single certified design as discussed above for the ABWR. The public comment period ends April 5, 2011.

Early Site Permits (ESPs)

NRC has issued four ESPs to date (Clinton, Grand Gulf, North Anna, and Vogtle). The NRC's issuance of the Vogtle ESP on August 26, 2009, is the first to be based on a specific technology (AP-1000) and the first to include a limited-work authorization (LWA). The NRC received an application for an ESP for the Victoria County Station submitted by Exelon on March 25, 2010. This is the first ESP application for a greenfield site with no specific technology established at this time.

The NRC received an ESP application for the PSEG site in New Jersey (same site as Hope Creek and Salem 1&2). The ESP application was tendered on May 25, 2010 and was docketed on August 4, 2010. This application, like the ESP application for the Victoria County Station, uses the Plant Parameter Envelope (PPM) approach which means no reactor design has been selected.

Combined License (COL) Applications

The North Anna, Unit 3 COLA was revised on June 29, 2010, to change its standard plant design from an ESBWR to a US-APWR.

NRC is currently reviewing 12 COL applications (20 new reactor units):

- 1 ABWR South Texas Project 3 and 4
- 7 AP-1000 Vogtle 3&4, William S. Lee Station 1&2, Shearon Harris 2&3,
 V.C. Summer 2&3, Levy County 1&2, Bellefonte 3&4*, and
 Turkey Point 6&7
- 4 ESBWR Fermi 3, Grand Gulf 3*, River Bend 3*, Victoria County 1 and 2**
- 3 EPR Calvert Cliffs 3, Nine Mile Point 3*, Bell Bend, Callaway 2*
- 2 US-APWR Comanche Peak Units 3 and 4, North Anna 3

* NRC staff review suspended at request of applicant.

** Application withdrawn

Advanced Reactors Program

NRC has established an advanced reactors program in the Office of New Reactors. Currently there are no applications under review, but several applications are expected to be submitted in the next three years including:

- High Temperature Gas-Cooled Reactors:
 - Next Generation Nuclear Plant (DOE) –Pre-application interactions underway, Design Certification application expected in FY-2014
- Small and Medium-size LWRs:
 - NuScale (iPWR) – NuScale Power is developing a modular, scalable 45 mW light water reactor and has suspended operations.
 - B&W mPower (iPWR)– Pre-application interactions underway; Design Certification application expected in Q4 of FY-2012
 - Unannounced iPWR - Design Certification application expected as early as FY-2013
- Liquid Metal Fast Reactors:
 - GE-H PRSIM – Prototype COL application expected as early as FY-2013
 - Toshiba 4S – Design Approval application expected as early as FY-2013
 - Hyperion – pre-application activities initiated; prototype COL application as early as FY-2013

NRO Vendor Inspection

The NRO vendor inspection program is described in Inspection Manual Chapter (IMC) 2507, "Construction Inspection Program, Vendor Inspection." This IMC will be implemented by various Inspection Procedures (IPs) including:

- IP 43002: Routine Inspections of Nuclear Vendors;
- IP 43003: Reactive Inspections of Nuclear Vendors;
- IP 43004: Inspection of Commercial-Grade Dedication Programs;
- IP 43005: NRC Oversight of Third Party Organizations Implementing Quality Assurance Requirements; and
- IP 36100: Inspection of 10 CFR Parts 21 and 50.55(e) Programs for Reporting Defects and Noncompliance.

FY 11 Vendor Inspection Plans

- Commercial grade dedication organizations
- Manufacturing for valves (all new reactor Design Centers)
- AP1000 modular construction

- Manufacturing for steam generator tubes for AP1000
- Digital Instrumentation and Control for AP1000, USAPWR, and ABWR
- STP ABWR mechanical component fabrication
- AP1000 CRDMs
- AP1000 Engineering Design Verification

Vendor Inspection Reports completed, issued and planned inspections

- IHI, Yokohama, Japan (AP1000 containments & STP ABWR) – issued
- Consolidated Power, Birmingham, AL – issued
- Shaw Modular Solutions, Lake Charles, LA – inspection terminated early – letter issued
- Toshiba, Yokohama and Fuchu, Japan (STP ABWR Digital I&C) – scheduled
- Flowserve (Limitorque), Lynchburg, VA - scheduled

Vendor Inspections continue to identify findings related to commercial grade dedication activities and inadequate Part 21 programs for evaluating and reporting of defects that could cause a substantial safety hazard.

Previously issued NRC inspection and trip reports can be located at

<http://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp.html>

Multinational Design Evaluation Program (MDEP) Activities

A. Codes and Standards Working Group (CSWG)

MDEP is a multinational initiative to develop innovative approaches to leverage the resources and knowledge of mature, experienced national regulatory authorities who will be tasked with the regulatory design review of new reactor plant designs. One of the issue-specific working groups established under the MDEP organization is the Codes and Standards Working Group (CSWG) whose goal is to achieve harmonization of Code requirements for pressure-boundary components.

Harmonizing pressure-boundary Codes used by member countries would ensure a consistent level of quality and safety in the design of pressure-boundary components such as the reactor vessel, piping, pumps, and valves and allow components manufactured in other countries to be used in member countries with a relatively minor review and reconciliation of Code differences. Such an approach would significantly simplify the licensing of nuclear power plants and reduce the burden on the regulatory authorities on an international scale.

The MDEP/CSWG has been working with standards development organizations (SDOs) from several countries (i.e., U.S., Japan, Korea, France, Canada and, recently, the Russian Federation) for the past 2 ½ years to compare each countries' pressure-boundary Code requirements for Class 1 vessels, piping, pumps and valves to the requirements of the ASME Boiler and Pressure Vessel Code, Section III. Similarities and differences are being documented in a database table. The Code-comparison effort is the first step to achieve

harmonization of pressure-boundary codes and standards. The Code-comparison tables are essentially complete for Class 1 vessels, piping, pumps and valves for Korea, Japan, and France with Canada and Russia following shortly thereafter. The ASME is working with the SDOs to develop a report summarizing the findings of the Code comparisons. The final report is expected to be issued by May 2011.

The MDEP/CSWG recently issued letters to ASME, AFCEN (France), and the KEPIC (Korea) SDOs to (1) encourage completion of the Code Comparison project and (2) ask these SDOs to address their plans to preclude future divergences of Code requirements. The MDEP/CSWG will be sending similar letters to the CSA (Canada), NIKIET (Russia), and JSME (Japan) SDOs.

The next MDEP/CSWG meeting is tentatively planned to be held in Paris, France, on April 18-20, 2011 (with the SDOs).

NRC staff continue their involvement for international cooperation of vendor oversight through the MDEP and through interactions with other international regulatory bodies. The staff has met with the Japan Nuclear Energy Safety Organization (JNES), the Japan Nuclear and Industrial Safety Agency (NISA), the French Nuclear Safety Authority (ASN), the Korean Institute of Nuclear Safety (KINS), the Chinese regulator (NNSA) and the regulator from Great Britain.

B. Vendor Inspection Cooperation Working Group (VICWG)

The MDEP VICWG members continue to allow opportunities for NRC staff participation and observation of vendor inspections conducted by regulatory authorities from other countries and for opportunities where participation and observation of NRC vendor inspections by representatives of regulatory authorities from other countries is possible. VICWG objectives include: explore international regulators' vendor oversight requirements and programs; apply lessons learned; exchange vendor inspection insights; and identify areas where international cooperation can yield tangible benefits.

On September 8 -10, 2010, and September 15 – 17, 2010, NRO staff observed the Korean Regulator perform vendor inspections at Westinghouse Newington Operations in Newington, NH, and Flowserve in Vernon, CA. On September 13 – 17, 2010, JNES observed an NRO inspection at IHI in Yokohama, Japan, and on November 15 – 19, NNSA observed an NRO inspection at Consolidated Power Supply in Birmingham, AL.

The NRC is planning on participating in pilot joint inspection which will be led by KINS. No firm dates have been established for the pilot joint inspection.

On May 11 - 13, 2011, NRO staff will participate at the next meeting of the VICWG in Paris, France.

6. LICENSE RENEWAL ACTIVITIES

Following are on-going activities related to license renewal:

Current status of applications, staff reviews and approvals

- 61 units approved (new plants are Cooper and Duane Arnold)
- 14 applications (21 units) under review
 - 2 (2 units) awaiting final approval (Pilgrim and Vermont Yankee)
 - 3 (5 units) completed ACRS full committee (Indian Point 2 & 3, Prairie Island 1 & 2, and Kewaunee)
 - 4 (7 units) awaiting ACRS full committee (Palo Verde 1/2/3 2/11, Crystal River, Hope Creek and Salem 1 & 2)
 - 2 (3 units) awaiting ACRS subcommittee (Diablo Canyon 1 & 2 2/11 and Columbia 4/11)
 - 3 (4 units) applications received (Seabrook, Davis-Besse, and South Texas Project 1 & 2)
- 3 applications with scheduled application dates through 2011
 - July 2011 – Grand Gulf
 - September 2011 – Limerick 1 & 2
 - October 2011 – Callaway
 - Others staggered out to 2017

Eight plants have entered the operating period beyond 40 years:

- Oyster Creek – April 9, 2009
- Nine Mile Point Unit 1 – August 22, 2009
- Ginna – September 19, 2009
- Dresden Unit 2 – December 22, 2009
- H.B. Robinson – July 31, 2010
- Monticello – September 8, 2010
- Point Beach Unit 1 – October 5, 2010
- Dresden Unit 3 – January 12, 2011

Revision of Generic Aging Lessons Learned (GALL) Report (NUREG-1801)

NRC issued revision 2 of the GALL report and the LR-SRP in December 2010. Revision 2 of the GALL report can be located at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1801/r2/index.html>.

Revision 2 of the LR-SRP can be located at:

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1800/r2/index.html>

Technical Issues

Recent reviews of license renewal applications and plant operating experience have identified issues in several areas, as described below. These issues have resulted in changes to the revised GALL report, along with discussions with applicants with on-going reviews.

- Neutron Absorbers
 - Interim Staff Guidance (ISG) for Boral and other neutron absorber materials was issued as final on May 4, 2010 (LR-ISG-2009-01, "Aging Management of Spent Fuel Pool Neutron-Absorbing Materials Other Than Boraflex," ADAMS Accession No. ML100621321).
- Buried Piping

- Recent operating experience, including tritium releases. NRC has initiated on-going interactions with NEI, EPRI, INPO and NACE.
- Use of cathodic protection as a preventative measure.
- Socket Welds
 - Need for non-visual examinations to ensure integrity of these welds.
- Metal Fatigue
 - Additional information routinely requested for NRC reviews (dissolved oxygen, cycle counting, etc.). RIS 2008-030 describes the need to use six stress components instead of one to assure conservative fatigue calculations.
- Containment Liner
 - Corrosion identified at several plants.
 - NRC is completing an activity to review operating experience and assess likelihood of corrosion occurrence.
- Concrete Containment
 - Delamination at tendon thickness location identified at one plant.
 - Inaccessible Medium Voltage Cables (> 480 v)
 - Cables in potentially submerged environment not qualified for continuous submergence.
- Steam Generator Divider Plates and Tube-to-Tubesheet Welds
 - Foreign operating experience with cracking in Alloy 600 divider plates and/or 82/182 welds
 - Concern with cracks extending to the pressure boundary.
 - Concern with cracking of tube-to-tubesheet welds with chromium content below that of Alloy 690 (consistency of once-through and recirculating steam generators).

Technical and Regulatory Bases for Second Renewal

NRC has initiated an activity to ensure adequate technical and regulatory bases for review of second license renewal applications, for operation to 80 years. Current activities include:

- Annual workshops to monitor industry/international technical progress
- Expand proactive materials degradation assessment to cover 80 years
- Collect/evaluate results from licensee implementation of license renewal aging management programs
- Continue and expand domestic and international partnerships

Several upcoming meetings will consider both first and second renewals:

- The “Second Workshop on U.S. Nuclear Power Plant Life Extension Research and Development,” February 22 – 24, 2011, L’Enfant Plaza Hotel, Washington, D.C. (<http://www.prc8a.com/LB60Workshop2011/>)
- A Commission “Briefing on Reactor Materials Aging Management Issues,” March 1, 2011.
- A Regulatory Information Conference double session on materials aging and license renewal on March 9, 2011 (<http://www.nrc.gov/public-involve/conference-symposia/ric/>).

7. Buried Piping

Recent leaks from buried piping at nuclear power plants have caused the NRC to undertake a focused look at how underground piping is designed, maintained, and inspected to ensure structural integrity and to prevent leaks that could harm the environment. These leaks generated significant stakeholder interest, including inquiries from several congressmen. On December 2, 2009, the NRC staff responded to the Chairman's memorandum dated September 3, 2009, ADAMS No. ML092460648, tasking the staff to describe the activities currently underway or planned addressing the issue of leaks from buried piping. The response is SECY-09-0174, "Staff Progress in Evaluation of Buried Piping at Nuclear Reactor Facilities," and can be found at <http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2009/>. Actions described in the SECY are being tracked in a buried piping action plan (ADAMS No. ML102590171).

A new Code Case N-XXX is under development to address underground piping systems. The staff has identified several areas that are not yet addressed, or require significant additional detail. The staff has provided its comments to Section III.

With regard to the integrity of buried piping systems and the prevention of groundwater contamination, the staff has initiated discussions with cognizant ASME committees regarding three issues. The first issue is that the Section III Code Cases currently under development do not address the ASME Code requirement for the design and arrangement of system components to allow for adequate access and clearances to conduct examination and tests. Lack of access for the inspection of buried and underground safety-related Class 3 piping has been identified as a serious issue relative to ensuring piping integrity. The second issue is the need to re-examine the scope of buried and underground piping in the ASME Code. Presently, the ASME Code only addresses safety-related Class 3. Leakage of contaminated fluids from other buried piping systems has been reported. Leakage from these systems can affect system operation and may have radiological impacts. Accordingly, the staff submitted an Issue Sheet to the Subgroup on Industry Experience for New Plants for consideration. The staff proposed that Section III consider the development of requirements addressing accessibility for inspection of buried and underground piping. Systems to be included would be based on considerations such as function and consequence. The staff also proposed that Section XI consider the development of requirements addressing the inspection of buried and underground piping for new plants. The inspection of buried and underground piping at operating plants is the third issue. The staff is concerned that ASME Code required testing and surveillance requirements for Class 3 buried and underground piping do not appear to be sufficient to identify corrosion, degradation and leakage; and leaks from other buried piping systems carrying tritium were discovered through voluntary licensee monitoring for radioactive tritium in groundwater monitoring wells rather than through inspection, testing, or monitoring of the piping.

With regard to Class 3 buried and underground piping, the Class 3 buried piping pressure boundary has degraded and become compromised at several plants. In some cases, the degradation was significant but had not yet challenged structural integrity. Current ASME Code requirements are not sufficient to identify either degradation or a leak. If left undiscovered, degradation of buried and underground Class 3 piping could progress to a point that structural integrity is threatened, particularly for piping that experiences general coating failure followed by general corrosion. If such a system contains tritium, groundwater monitoring would indicate the

presence of a leak. For those piping systems that do not contain tritium, however, neither groundwater monitoring nor inspection or Code-required testing would identify degradation, and the piping could continue to deteriorate until there is loss of function.

With regard to buried and underground piping other than Class 3, industry assessments have shown that it is important to maintain the integrity of these systems as they can affect the reliability of plant operation and can have radiological and environmental impacts. The industry has initiated a number of activities. Section XI should assess these activities with regard to the need for inspection and testing.

With regard to Code Case N-755 regarding the use of high density polyethylene piping for underground systems, the staff has identified issues to Section III related to design life, joining, and non-destructive examination that will need to be addressed for the staff to endorse the Code Case.

8. Regulatory Information Conference

NRC's 23rd Annual Regulatory Information Conference (RIC) is being held at the Bethesda North Marriott Hotel and Conference Center on March 8-10, 2011. The purpose of the RIC is to provide a forum to bring together diverse groups of stakeholders and to inform them of significant and timely regulatory activities. These activities include important research findings, rulemaking, significant regulatory issues, generic issues, regulatory process and procedure improvements, and other items of high interest such as license renewal. Gary Stevens, Carol Moyer, and Wallace Norris are coordinating a session on Tuesday, March 8, focusing on issues related to nondestructive examination and codes/standards.

9. EPRI/NRC Addendum to MOU

The U.S. Nuclear Regulatory Commission (NRC) and the Electric Power Research Institute (EPRI) have for many years collaboratively worked together in accordance with a Memorandum of Understanding (MOU) to allow and encourage cooperation in nuclear safety research that provides benefits for both NRC and industry. These benefits include technical information exchange and cost sharing, whenever such cooperation and cost sharing can be accomplished in a mutually beneficial manner.

Through routine industry interactions between staff from the Office of Nuclear Regulatory Research (RES) and staff from the EPRI NDE Center, it became apparent that both organizations were conducting research in many of the same areas. Accordingly, RES and the NDE Center have been developing, for the first time, an addendum to the MOU to address research related to nondestructive examination. For example, both organizations have initiated programs to assess visual and ultrasonic inspection techniques as applied to high density polyethylene (HDPE) piping. The collaborative process addressed by the addendum also provides opportunity for each organization to understand the basis for research that is being planned.