UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

August 24, 2010

MEMORANDUM TO: ACRS Members

FROM: Sherry Meador **/RA/**
Technical Secretary, ACRS

SUBJECT: CERTIFICATION OF THE MEETING MINUTES FROM THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS 562nd FULL COMMITTEE MEETING HELD ON MAY 7-9, 2009 IN ROCKVILLE, MARYLAND

The minutes of the subject meeting were certified on May 20, 2009, as the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachment:
As stated

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

May 20, 2009

MEMORANDUM TO: Sherry Meador, Technical Secretary
Advisory Committee on Reactor Safeguards

FROM: Cayetano Santos, Chief ***/RA/***
Reactor Safety Branch
Advisory Committee on Reactor Safeguards

SUBJECT: MINUTES OF THE 562nd MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS (ACRS), MAY 7-9, 2009

I certify that based on my review of the minutes from the 562nd ACRS Full Committee meeting, and to the best of my knowledge and belief, I have observed no substantive errors or omissions in the record of this proceeding subject to the comments noted below.

OFFICE	ACRS	ACRS:RSB
NAME	SMeador	CSantos/sam
DATE	05/ 20 /09	05/ 20 /09

OFFICIAL RECORD COPY

CERTIFIED Date Certified: 05/20/2009

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May 7-9, 2009

Appendices

During its 562nd meeting, May 7-8, 2009, the Advisory Committee on Reactor Safeguards (ACRS) discussed several matters and completed the following report, letter, and memoranda:

REPORT

Report to Gregory B. Jaczko, Chairman, NRC, from Mario V. Bonaca, Chairman, ACRS:

- Proposed Resolution of Generic Safety Issue - 163, "Multiple Steam Generator Tube Leakage," dated May 20, 2009

LETTER

Letter to R. W. Borchardt, Executive Director for Operations, NRC, from Mario V. Bonaca, Chairman, ACRS:

- Draft Final Regulatory Guide 1.214 (DG-1212), "Response Procedures for Potential or Actual Aircraft Attacks," dated May 18, 2009

MEMORANDA

Memoranda to R. W. Borchardt, Executive Director for Operations, NRC, from Edwin M. Hackett, Executive Director, ACRS:

- Proposed Revisions to Regulatory Guides 1.34, 1.43, 1.44, 1.50, 1.84, 1.147, and 1.193, dated May 20, 2009

- Draft Final Regulatory Guides 1.47, 1.69, and 3.52, dated May 20, 2009

- ACRS Review of Steam Generator Action Plan Items, dated May 18, 2009

MINUTES OF THE 562nd MEETING OF THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

ROCKVILLE, MARYLAND

The 562nd meeting of the Advisory Committee on Reactor Safeguards (ACRS) was held in Conference Room 2B3, Two White Flint North Building, Rockville, Maryland, on May 7-9, 2009. Notice of this meeting was published in the *Federal Register* on April 21, 2009 (72 FR 18263-18265). The purpose of this meeting was to discuss and take appropriate action on the items listed in the meeting agenda. The meeting was open to public attendance.

A transcript of selected portions of the meeting is available in the NRC's Public Document Room at One White Flint North, Room 1F-19, 11555 Rockville Pike, Rockville, Maryland. Copies of the transcript are available for purchase from Neal R. Gross and Co., Inc., 1323 Rhode Island Avenue, NW, Washington, DC 20005. Transcripts are also available at no cost to download from, or review on, the Internet at http://www.nrc.gov/ACRS/ACNW .

ATTENDEES

ACRS Members: Dr. Mario Bonaca (Chairman), Dr. Said Abdel-Khalik (Vice-Chairman), Mr. J. Sam Armijo (Member-at-Large), Dr. George E. Apostolakis, Dr. Sanjoy Banerjee, Dr. Dennis Bley, Mr. Charles Brown, Dr. Michael Corradini, Mr. Otto L. Maynard, Dr. Dana A. Powers, Mr. Harold Ray, Dr. Michael Ryan, Dr. William Shack, Mr. John Sieber, and Mr. John Stetkar.

I. Chairman's Report (Open)

[Note: Mr. Sam Duraiswamy was the Designated Federal Official for this portion of the meeting.]

Dr. Mario Bonaca, Committee Chairman, convened the meeting at 8:30 a.m. In his opening remarks he announced that the meeting was being conducted in accordance with the provisions of the Federal Advisory Committee Act. He reviewed the agenda items for discussion and noted that no written comments or requests for time to make oral statements from members of the public had been received. Dr. Bonaca also noted that a transcript of the open portions of the meeting was being kept and speakers were requested to identify themselves and speak with clarity and volume.

II. Proposed Rule on Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements

[Note: Dr. Hossein Nourbakhsh was the Designated Federal Official for this portion of the meeting.]

The Committee met with representatives of the NRC staff to discuss the revised proposed rule to amend Parts 50 and 52 to redefine large break loss-of-coolant accidents. The revised rule would establish a conservative transition break size (TBS) for pressurized water and boiling water reactors. Breaks larger than TBS would be considered beyond design basis; however, mitigation requirements would be retained for defense-in-depth and system reliability. In November 2005, the original proposed rule was published in the Federal Register. The Committee commented on the draft final rule in November 2006. During the May 2009 briefings staff provided an overview of the revised proposed rule and described the changes made in response to ACRS comments. The staff plans to reissue the entire rule for public comment in June 2009 and then provide the final rule to the commission in June 2010. The Committee decided that no report is warranted at this time. The Committee plans to review the draft final version of rule after the public comment period.

III. Proposed Resolution of Generic Safety Issue (GSI–163), "Multiple Steam Generator Tube Leakage"

[Note: Mr. Christopher Brown was the Designated Federal Official for this portion of the meeting.]

The Committee met with representatives of the NRC staff to discuss the proposed resolution of GSI-163. The NRC initiated GSI-163 to address a concern of an NRC staff member in a Differing Professional Opinion (DPO) in 1991. The principal assertion addressed by GSI-163 was the potential for multiple steam generator (SG) tube leaks during a non-isolatable main steam line break (MSLB) outside containment to lead to core damage as a result of loss of all primary system coolant and safety injection fluid in the refueling water storage tank. Consequently, the integrity of the SG tubes must be ensured with high confidence.

The NRC staff evaluated the adequacy and effectiveness of industry practice and regulatory requirements related to the management of SG tube integrity to ensure that all tubes will exhibit acceptable structural margins against burst or rupture under normal operating conditions and Design Basis Accidents (DBAs). The staff indicated that new performance-based technical specification requirements are in place at all US PWRs. Furthermore, licensees are required to make projections of acceptable tube behavior over the interval between SG tube inspections. Operating experience also shows that effective management of SG tube integrity can be achieved through a performance-based strategy focused on satisfying tube integrity performance criteria.

The staff concluded that the technical specification requirements related to SG tube integrity provide reasonable assurance that all tubes will exhibit acceptable structural margins against burst or rupture under normal operating conditions and DBAs, including MSLB, and that leakage from one or multiple tubes under DBAs will be limited to very small amounts, consistent with the applicable regulations for offsite and control room dose. The staff concluded that the GSI-163 principal assertion and related concerns in the DPO are not substantiated and that GSI-163 should be closed. The Committee issued a report to the NRC Chairman on this matter, dated May 20, 2009, recommending that GSI-163 be closed.

IV. Draft Final Regulatory Guide 1.214 (DG-1212), "Response Procedures for Potential or Actual Aircraft Attacks"

[Note: Ms. Maitri Banerjee was the Designated Federal Official of this portion of the meeting.]

The Committee met with representatives of the NRC staff to discuss draft final Regulatory Guide (RG) 1.214, "Response Procedures for Potential or Actual Aircraft Attacks." This Guide provides guidance for implementing requirements in 10 CFR 50.54(hh)(1) that was published on March 26, 2009. The Commission has determined that an aircraft attack is a beyond design basis threat; however mitigative measures are required for adequate protection of the public. This Guide provides one acceptable method for licensees and applicants to develop, implement, and maintain procedures for contingency actions in case of a potential or actual aircraft attack.

The staff discussed various actions required by 10 CFR 50.54(hh)(1) and the corresponding guidance in RG 1.214. The staff described the steps taken to develop the document, including coordination with stakeholders and other government agencies involved in this type of emergency response. The staff also described the current process for monitoring, communication, and notification to ensure threat authentication and follow-up action.

The Committee issued a letter to the Executive Director for Operations on this matter, dated May 18, 2009, recommending that Regulatory Guide 1.214 be issued after it is revised to emphasize the need for site specific mitigation strategies. The Committee also recommended that the staff review the use of the word "possible" throughout the document and revise the text where it sets unreasonable expectations.

V. Status and Update Concerning Revisions to the AP1000 Design Control Document

[Note: Mr. Mike Lee was the Designated Federal Official for this portion of the meeting.]

The Committee met with representatives of the NRC staff, Westinghouse Electric Company, and the NuStart Energy Consortium to discuss the latest amendments to the AP1000 Design Control Document (DCD). In January 2006, the NRC staff certified the AP1000 DCD that describes the standard plant design. During the 2007-2008 period, Westinghouse submitted new amendments to the AP1000 DCD to the NRC. The staff has subsequently been engaged in a review of those amendments, and complemented this review with meetings involving both Westinghouse and Nustart Energy consortium utilities comprising the AP1000 design center group.

The Westinghouse/NuStart representatives provided the Committee with an overview of the latest amendments to the currently certified design. The Westinghouse-proposed changes are expected to be extensive, and several involve Tier 1 information which will prompt the need for an NRC rulemaking at a later date. It is also expected that many of the proposed changes reflect Westinghouse's marketing of the AP1000 design both domestically as well as abroad. Westinghouse currently has contracts in-place with utilities for six AP1000-based reactors with more contracts expected in the future. The Bellefonte site is the currently designated reference Combined License Application (RCOLA) for the AP1000 design. NuStart representatives noted that they are in the process of transitioning this designation to the Vogtle site.

The staff described its plans for reviewing the latest amendments to the AP1000 DCD. The staff's design certification process includes ACRS review of the draft Safety Evaluation Report (SER) with open-items. Three ACRS Subcommittee meetings on the AP1000 DCD draft SER are currently scheduled for the balance of calendar year 2009. This was an information briefing. No Committee action was necessary.

VI. Subcommittee Report

Safety Research Program Subcommittee Report

The Chairman of the Subcommittee on the Safety Research Program provided a report to the Committee summarizing the results of the April 16–17, 2009, meeting with the NRC staff on the Seismic Safety Research Program Plan. The staff published this Plan in 2008 describing specific products and activities intended to provide improved information on seismic hazard characterization and the treatment of those hazards in siting and design decisions for new nuclear power plants. To help place this Program Plan in context, the Subcommittee was briefed on the user needs that form the technical basis for the work that has been identified. The Program Plan identifies about 40 products and activities. The Subcommittee learned that about 17 of these are currently under way to varying degrees. The Subcommittee was also briefed on the status of two of the research activities in progress as well as the U.S. Department of Energy (DOE) experience (including lessons-learned) related to the use of probabilistic methods in evaluating the seismic safety of defense-related nuclear facilities. The Committee will provide comments and recommendations regarding the Seismic Safety Research Program Plan as part of its review of the NRC Research Program Plan in March 2010.

VII. Quality Assessment of Selected Research Projects

[Note: Dr. Hossein Nourbakhsh was the Designated Federal Official for this portion of the meeting.]

The Committee discussed the status of the ACRS Panels' review of the quality assessment of the NRC research projects on the following topics: NUREG/CR-6964, "Crack Growth Rates and Metallographic Examinations of Alloy 600 and Alloy 82/182 from Field and Laboratory Materials Testing in PWR Environments," and Draft NUREG/CR-XXXX, "Diversity Strategies for Nuclear Power Plant Instrumentation and Control Systems." The Committee plans to discuss the results of Panels' reviews of the above projects during its meeting on June 3-5, 2009.

VIII. Executive Session

[Note: Mr. Edwin Hackett was the Designated Federal Official for this portion of the meeting.]

A. Reconciliation of ACRS Comments and Recommendations/EDO Commitments

- The Committee considered the EDO's response of April 1, 2009, to comments and recommendations included in the March 13, 2009, ACRS letter on Draft Final Rule 10 CFR 50.61a, "Alternate Fracture Toughness Requirements for Protection Against Pressurized Thermal Shock Events." The Committee decided that it was satisfied with the EDO's response.

- The Committee considered the EDO's response of April 14, 2009, to comments and recommendations included in the February 23, 2009, letter on Draft Final NUREG-1855, "Guidance on the Treatment of Uncertainties Associated with Probabilistic Risk Assessments in Risk-Informed Decisionmaking," and draft Appendix A, "Example Implementation of the Process for the Treatment of PRA Uncertainty in a Risk-Informed Regulatory Application." The Committee decided that it was satisfied with the EDO's response.

B. Report of the Planning and Procedures Subcommittee Meeting

Review of the Member Assignments and Priorities for ACRS Reports and Letters for the May ACRS Meeting

Member assignments and priorities for ACRS reports and letters for the May ACRS meeting were discussed. Reports and letters that would benefit from additional consideration at a future ACRS meeting were also discussed.

Anticipated Workload for ACRS Members

The anticipated workload for ACRS members through July 2009 were discussed and the objectives were to:

- Review the reasons for the scheduling of each activity and the expected work product and to make changes, as appropriate
- Manage the members' workload for these meetings
- Plan and schedule items for ACRS discussion of topical and emerging issues

ACRS Meeting With the Commission

The ACRS is scheduled to meet with the Commission on Thursday, June 4, 2009 to discuss items of mutual interest. A list of topics approved by the Commission is as follows:

+ Overview
- Accomplishments
- Future Plant Activities
- License Renewal/Power Uprates
- Ongoing/Future Activities

+ Crediting Containment Accident Pressure in the NPSH Calculations
+ Pressurized Thermal Shock Rule
+ Digital I&C Matters
+ Options to Revise NRC Regulations Based on ICRP Recommendations/Progress on Recommendations of the Independent External Review Panel on the Materials Licensing Program

[NOTE: The second part of Item 5 related to Progress on Recommendations of the Independent Review Panel will be presented by Dr. Ryan as a member of the Independent External Review Panel on the Materials Licensing Program.]

Presentation slides on the above topics prepared by the staff engineers and approved by the cognizant members were sent to all members and the ACRS staff on April 29, 2009. The current slides reflect incorporation of the comments received. These slides will be provided to the Committee for discussion and approval at the May meeting.

ACRS Review of the Steam Generator Action Plan Items

NUREG-1740, "Voltage-Based Alternative Repair Criteria," documents the conclusions and recommendations of the ACRS associated with the Differing Professional Opinion (DPO) on steam generator tube integrity. Subsequent to the issuance of the NUREG report, the staff included the issues raised by the ACRS in NUREG-1740 in Section 3 of the Steam Generator Action Plan. In several reports and letters to the Commission and the EDO, the Committee stated that it looks forward to reviewing the details of the staff's response to the recommendations in NUREG-1740. The EDO agreed to provide updates to the Committee on the resolution of the ACRS concerns in NUREG-1740. In its May 21, 2004 letter, the Committee provided its views on the adequacy of the staff's resolution of certain issues in NUREG-1740. The staff is in the process of resolving the issues in the Steam Generator Action Plan. Because of the significant changes in management and staff, Dr. Powers proposes that we remind the staff of the following:

The staff should provide the resolution package of those issues identified in Section 3 of the Steam Generator Action Plan for ACRS review prior to closing them out. The staff should provide an opportunity to the Committee to review the resolution of other Steam Generator Action Plan items prior to declaring them closed.

Assignment of Core Members to the ACRS Subcommittees

During the January 2009 retreat, the members discussed assignment of core members to the ACRS Subcommittees. Such an assignment will not prohibit the members from attending any Subcommittee meetings of interest to them. These assignments and the revised Subcommittee tasks will be sent to the members following the May ACRS meeting. It will be submitted to the full Committee for approval during the June meeting.

Webstreaming of the ACRS Meeting

During its April 2009 meeting, the Committee discussed the March 6, 2009 Staff Requirements Memorandum in which the Commission stated that:

If the ACRS decides to pursue Webstreaming of ACRS meetings, the ACRS should prepare a proposed plan reflecting their interests, in consultation with the Office of Administration (ADM).

Subsequent to the meeting, the ACRS staff (Jenny et. al) met with representatives of ADM to gather additional information, as requested by the members, for use by the Committee in making a decision whether to pursue webstreaming of ACRS meetings. The information gathered is provided below.

ADM is currently preparing a Statement of Work (SOW) for a new contract that will probably be signed in late 2009. ADM will be the primary point of contact for the agency-wide (including Regions) Webstreaming services. In the contract, ADM will include the new ACRS conference room (T2-B1), Commissioners' Conference Room, and the Auditorium such that these rooms will be equipped for Webstreaming of meetings.

The SOW will specify that the contractor provide support for Webstreaming of 100 meetings per year. ACRS can choose the number of meetings it wants to webstream. Since the capability for webstreaming concurrent meetings does not exist at this time, only one of the Agency meetings will be webstreamed at any given time. If decided to participate, the Committee should consider participating in the webstreaming program under the agency–wide contract managed by ADM rather than sharing the ASLBP webstreaming contract.

Regulatory Guides

a. Draft Final Regulatory Guides

The staff plans to issue the following Draft Final Regulatory Guides and would like to know whether the Committee wants to review these Guides prior to being issued final.

Draft Final Revision 1 to Regulatory Guide 1.69, "Concrete Radiation Shields and Generic Shield Testing for Nuclear Power Plants"

Draft Final Revision 1 to Regulatory Guide 1.69 endorses American National Standards Institute (ANSI)/ American Nuclear Society (ANS) Standard 6.3.1-1987; R2007, which describes a test program to be used in evaluating biological radiation shielding in nuclear reactor facilities under

normal operating conditions, including anticipated operational occurrences, with some exceptions. Also, ANSI/ANS-6.4-2006, American Concrete Institute (ACI) 349-06, and ACI 349.1R-07 are acceptable for the construction of radiation shielding structures of hot laboratories, radiochemical plants, experimental facilities, nuclear fuel fabrication plants, and the shielding structures for nuclear power plants, with a few exceptions. Section C.1 lists specific guidelines for the combined use of the above standards in the design and construction of the concrete radiation shields for nuclear power plants. Section C.2 lists the specific provisions of the above standards that the NRC has not endorsed. As a as a result of public comments this version includes a sentence under section C. Regulatory Position, item 2, first paragraph, indicating that "It is not required that the software be updated regularly." In addition, item (f) under the same Section was deleted.

Draft Final Revision 2 to Regulatory Guide 3.52, "Standard format and Content for the Health and Safety Sections of License Renewal Applications for Uranium Processing and Fuel Fabrication"

Draft Final Revision 2 to Regulatory Guide 3.52 endorses the methods and procedures for evaluation and verification of the licensing of special nuclear material (SNM) detailed in NUREG-1520, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility," as a process that the NRC has found acceptable for meeting the regulatory requirements. NUREG-1520 addresses the health, safety, and environmental protection requirements of 10 CFR Part 20, "Standards for Protection against Radiation," and 10 CFR Part 70, "Additional Requirements for Certain Licensees Authorized to Possess a Critical Mass of Special Nuclear Material," including the accident safety requirements reflected in Subpart H. NUREG-1520 describes the scope, level of detail, and acceptance criteria for reviews.

Based on his review of these Guides, Dr. Ryan recommends that the Committee not review these Guides.

Draft Final Revision 1 to Regulatory Guide 1.47, "Bypassed and Inoperable Status Indication for Nuclear Power Plant Safety Systems"

The previous version of Regulatory Guide 1.47 endorsed the (IEEE) standard 279-1971, which has since been withdrawn by the IEEE. The proposed Draft Final Revision 1 to Regulatory Guide 1.47 identifies the differences between IEEE 279-1971 and IEEE 603-1991 and endorses IEEE 603-1991. IEEE 603-1991 is specifically referenced in 10 CFR 50.55 a, "Codes and Standards," and is more explicit than IEEE 279-1971. Regulatory Guide 1.47, Revision 0, Regulatory Positions C.3 and C.4 are now explicitly present in IEEE 603-1991. Therefore, these positions have been removed. A new position with respect to digital instrumentation and controls has been added. This new position states that a consistent means of indication should be provided for detection of any inoperable condition of a portion of a digital safety system or subsequent automatic compensatory action that results in bypass or inoperable condition of a portion of a digital safety. Revision 1 also incorporates guidance from Branch Technical Position 8-5, "Supplemental Guidance for Bypass and Inoperable Status Indication for Engineered Safety Features Systems."

Based on his review of this Guide, Mr. Stetkar recommends that the Committee not review this Guide.

Proposed Regulatory Guides

The staff plans to issue the following Draft Regulatory Guides (DGs) for public comment and would like to know whether the Committee wants to review this document prior of being issued for public comment.

Proposed Revision 35 to Regulatory Guide 1.84 (DG 1191), "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III"

The staff issued RG 1.84 in October 2007. Regulatory Guide 1.84 lists all Section III Code Cases that the NRC has approved for use. For Revision 35 of the guide, the NRC reviewed the Section III Code Cases listed in Supplements 2–11 to the 2004 Edition of the ASME BPV Code and Supplement 0 to the 2007 Edition (Supplement 0 also serves as Supplement 12 to the 2004 Edition) (except for Code Cases pertaining to high-temperature gas-cooled reactors; certain requirements in Section III, Division 2, not endorsed by the NRC; liquid metal; and submerged spent fuel waste casks). Appendix A to this guide lists the supplements reviewed, the applicable edition, and the date on which each supplement was approved by the ASME Board on Nuclear Codes and Standards. Appendix B is a list of the Section III Code Cases addressed in the eleven supplements. Finally, Appendix C is a current list of all Section III Code Cases. Code Cases provide alternatives to existing Code requirements that the ASME developed and approved. The new Code Cases and revisions to existing Code Cases listed as approved in Tables 1 and 2 of this guide are incorporated by reference into 10 CFR 50.55a. Code Cases approved by the NRC may be used voluntarily by licensees as an alternative to compliance with ASME Code provisions that have been incorporated by reference into 10 CFR 50.55a. Requirements related to Code Case implementation are provided in 10 CFR 50.55a(b). When a licensee initially applies a Code Case listed in Tables 1 or 2, the licensee must implement the most recent version of that Code Case incorporated by reference in 10 CFR 50.55a. The respective proposed revised rule is in the process to be issued for public comment. This guide is to be issued at the same time for public comment.

Proposed Revision 16 to Regulatory Guide 1.147 (DG 1192), "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1"

The staff issued RG 1.147 in October 2007. For Revision 16 of Regulatory Guide 1.147, the NRC reviewed the Section XI Code Cases listed in Supplements 2 through 11 to the 2004 and Supplement 0 published with the 2007 Edition (Supplement 0 also serves as Supplement 12 to the 2004 Edition) of the ASME BPV Code. Appendix A to this guide lists the supplements reviewed, the edition, the supplement number, and the date on which the supplement was approved by the ASME Board on Nuclear Codes and Standards. Appendix B is a list of the Section XI Code Cases published by the ASME in the eleven supplements. Finally, Appendix C is a current list of all Section XI Code Cases. When a licensee initially implements a Code Case, 10 CFR 50.55a requires that the most recent version of that Code Case as listed in Tables 1 and 2 be implemented. If a Code Case is implemented by a licensee and a later version of the Code Case is incorporated by reference into 10 CFR 50.55a and listed in Tables 1 and 2 during the licensee's present 120-month ISI program interval, that licensee may use either the later

version or the previous version. An exception to this provision would be the inclusion of a limitation or condition on the use of the Code Case that is necessary, for example, to enhance safety. Licensees who choose to continue use of the Code Case during the subsequent 120-month ISI program interval will be required to implement the latest version incorporated by reference into 10 CFR 50.55a and listed in Tables 1 and 2. The respective proposed revised rule is in the process to be issued for public comment. This guide is to be issued at the same time for public comment.

Proposed Revision 3 to Regulatory Guide 1.193 (DG 1193), "ASME Code Cases not Approved for Use"

The NRC staff has reviewed Section III and Section XI Code Cases listed in Supplements 2–11 to the 2004 Edition, and Supplement 0 to the 2007 Edition of the ASME BPV Code. It should be noted that Supplement 0 to the 2007 Edition also serves as Supplement 12 to the 2004 Edition. Draft Revision 35 of Regulatory Guide 1.84, "Design, Fabrication, and Materials Code Case Acceptability, ASME Section III" (Ref. 4), and Draft Revision 16 of Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1" (Ref. 5), have been published concurrently with this guide to identify the Code Cases that the NRC has determined to be acceptable alternatives to applicable parts of Section III and Section XI.

For this guide, the NRC reviewed the Section III and Section XI Code Cases listed in Supplements 2–11 to the 2004 Edition, and Supplement 0 to the 2007 Edition of the ASME BPV Code. Licensees may not implement Code Cases listed in this guide without prior NRC approval. The respective proposed revised rule is in the process to be issued for public comment. This guide is to be issued at the same time for public comment.

Based on his review of these Proposed Regulatory Guides, Dr. Shack recommends that the Committee review the draft revisions final revision to Regulatory Guides 1.84, 1.147, and 1.193 after reconciliation of public comments.

Proposed Revision 1 to Regulatory Guide 1.43 (DG 1221), "Control of Stainless Steel Weld Cladding of Low-Alloy Steel Components"

The NRC initially issued Regulatory Guide 1.43, "Control of Stainless Steel Weld Cladding of Low-Alloy Steel Components," in May 1973. The guidance does not reflect changes in the ASME Boiler and Pressure Vessel Code since 1973. Therefore, revision of this regulatory guidance is necessary to reflect updates in the ASME Code. Controls should be exercised to limit the occurrence of underclad cracking in low-alloy steel safety-related components clad with stainless steel. Welding processes that induce underclad cracking by generating excessive heating and promoting grain coarsening in the base metal should not be used for cladding any grade of material that has a known susceptibility to underclad cracking. Welding procedures used for cladding these grades of material should be qualified for use to demonstrate that underclad cracking is not induced. These controls need not be applied to the cladding of materials demonstrated to be resistant to underclad cracking, such as SA-533 Grade B Class 1 plate made to fine-grain practice and heat-treated to develop a fine-grained structure. Weld cladding practices used in the fabrication of low-alloy steel safety-related components should be conducted in accordance with the guidelines established in this RG.

Proposed Revision 1 to Regulatory Guide 1.50 (DG 1222), "Control Preheat Temperature for Welding of Low-Alloy Steel"

The NRC initially issued Regulatory Guide 1.50, "Control of Preheat Temperature for Welding of Low-Alloy Steel," in May 1973. The American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME B&PV Code), Section III, "Nuclear Power Plant Components,"1 specifies certain requirements associated with manufacturing Code Class 1, 2, and 3 components. Section III requires adherence to Section IX, "Welding Qualifications," of the ASME B&PV Code, including the requirements governing procedure qualifications for welds. Review of the requirements of Section IX for procedure qualifications and the fabrication requirements of Section III indicates the desirability of supplementary requirements to ensure adequate control of welding variables in the production welding of low-alloy steels. The assurance of satisfactory welds in low-alloy steels can be increased significantly and, in particular, the propensity for cracks (cold cracks) or reheat cracks forming in underbead areas and heat-affected zones (HAZs) can be minimized by maintaining proper preheat temperatures on the base metals concurrent with controls on other welding variables. The guidance does not reflect changes in the ASME B&PV Code since 1973. Therefore, revision of this regulatory guidance is necessary to reflect updates in the ASME Code.

Proposed Revision 1 to Regulatory Guide 1.34 (DG 1223), "Control of Electroslag Weld Properties"

The NRC initially issued Regulatory Guide 1.34, "Control of Electroslag Weld Properties," in December 1972. Section III requires adherence to ASME Boiler and Pressure Vessel Code, Section IX, "Welding Qualifications," which includes the requirements for the procedure qualification for welds. Review of the requirements of the procedure qualification stated in Section IX indicates that supplementary requirements are desirable to provide assurance of adequate weld metal properties when the electroslag welding process is used. The guidance does not reflect changes in the ASME Boiler and Pressure Vessel Code since 1972. Therefore, revision of this regulatory guidance is necessary to reflect updates in the ASME Code.

Proposed Revision 1 to Regulatory Guide 1.44 (DG 1224), "Control of the Processing and Use of Stainless Steel"

The NRC initially issued Regulatory Guide 1.44, "Control of the Use of Sensitized Stainless Steel," in May 1973. The guidance does not reflect changes in the ASME Boiler and Pressure Vessel Code since 1973. Unstabilized, austenitic stainless steel of the AISI Type 3XX series used for components that are part of (1) the reactor coolant pressure boundary, (2) systems required for reactor shutdown, (3) systems required for emergency core cooling, and (4) reactor vessel internals that are relied on to permit adequate core cooling for any mode of normal operation or under credible postulated accident conditions should meet the criteria established in this RG. Therefore, revision of this regulatory guidance is necessary to reflect updates in the ASME Code.

Based on his review of these Proposed Regulatory Guides, Dr. Armijo recommends that the Committee review the draft final revisions to Regulatory Guides 1.43, 1.50, and 1.34, after reconciliation of public comments, and the proposed Revision 1 to RG 1.44 prior to issuing it for public comment.

Draft Template NEI-08-08**, "**Generic FSAR Template Guidance for Life-Cycle Minimization of Contamination," and Draft ISG-006, "Evaluation and Acceptance Criteria for 10 CFR 20.1406 to Support Design Certification and Combined License Applications."

Staff issued Regulatory Guide (RG) 4.21, "*Minimization of Contamination and Radioactive Waste Generation: Life-Cycle Planning*," in June 2008, providing guidance on meeting the requirements of 10 CFR 20.1406, "Minimization of Contamination." 20.1406 was promulgated by NRC staff to prevent the recurrence of "legacy decommissioning sites," where difficulties with longstanding contamination from nuclear materials have left some NRC-licensed facilities without a feasible path to meeting NRC license termination requirements. The Advisory Committee on Nuclear Waste & Materials reviewed the staff's technical basis for 10 CFR 20.1406, as well as draft and final versions of RG 4.21.

NEI-08-08

The Nuclear Energy Institute (NEI) submitted NEI 08-08, "*Generic FSAR Template Guidance for Life-Cycle Minimization of Contamination*," in December 2008. NEI-08-08 is intended to be part of the safety analysis report in a Combined License Application (COLA), and describes the content of operating programs/processes that will demonstrate compliance with 20.1406. NEI has asked NRC to endorse NEI-08-08 in accordance with the requirements of 10 CFR 50.4, consistent with the design-centered approach of NRC reviews of the new nuclear power plants so that only a single staff review is required of the majority of the FSAR information being submitted to demonstrate compliance with 20.1406.

ISG-006

The NRO Health Physics Branch is also developing Interim Staff Guidance (ISG) ISG-006 on "*Evaluation and Acceptance Criteria for 10 CFR 20.1406 to Support Design Certification and Combined License Applications*." This document addresses the design requirements for meeting 20.1406 that are to be included in Design Certification Documents, and where needed, as site or plant-specific design features in a COLA where there is a deviation from the certified design. ISG-006 is intended to provide supplemental guidance to the NRC staff since the standard Review Plan (SRP) was revised before RG 4.21 was issued. The staff plans to incorporate ISG-006 into the next revision of the SRP.

Transition of NRC Travel Management Services to Call Centers

NRC has offered personal travel services at the Carlson Travel Management center previously located on the 9th floor of Two White Flint Building as a supplement to phone reservations. As a result of the eTravel implementation effort an online travel reservation booking tool is now available to all NRC travelers. Although NRC travelers can conduct all of their domestic travel business in eTravel, the NRC will continue to provide personalized travel services via Carlson Travel agents at their dedicated government call centers. Effective March 30, 2009, all NRC employees are to call Carlson toll free number 1-866-250-2160.

Third Quadripartite Working Group Meeting

Japan's Nuclear Safety Commission (NSC) will host the third Quadripartite Working Group (WG) Meeting in Tokyo tentatively scheduled for October 13-15, 2009 on the main topic of Digital I&C and an afternoon dedicated to Seismic Safety issues.

ACRS Members' Visit to Watts Barr, ORNL and Region II-July 28 thru 30, 2009

The ACRS Subcommittee on Plant Operations and Fire Protection plans to hold a meeting with the Region II Administrator on July 30, 2009 to discuss items of mutual interest. During the week of this meeting, ACRS members plan to visit Watts Bar site, meet with TVA management and NRC inspectors, and tour the ORNL facility. Itineraries for the Watts Bar and ORNL visits and proposed items to be covered during the meeting with Region II Administrator was discussed.

The meeting was adjourned at 12:00 noon on May 9, 2009.

as methods that are acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques that the staff uses in evaluating specific problems or postulated accidents, and data that the staff needs in its review of applications for permits and licenses.

The draft regulatory guide (DG), titled, ''Fire Protection for Nuclear Power Plants,'' is temporarily identified by its task number, DG–1214, which should be mentioned in all related correspondence. DG–1214 is proposed Revision 2 of Regulatory Guide 1.189.

The primary objectives of fire protection programs (FPPs) at U.S. nuclear plants are to minimize both the probability of occurrence and the consequences of fire. To meet these objectives, the FPPs for operating nuclear power plants are designed to provide reasonable assurance, through defense in depth, that a fire will not prevent the necessary safe-shutdown functions from being performed and that radioactive releases to the environment in the event of a fire will be minimized.

The regulatory framework that the NRC has established for nuclear plant FPPs consists of a number of regulations and supporting guidelines, including, but not limited to, Title 10 of the *Code of Federal Regulations,* Part 50, ''Domestic Licensing of Production and Utilization Facilities,'' (10 CFR Part 50), Appendix A, ''General Design Criteria for Nuclear Power Plants,'' General Design Criterion (GDC) 3, ''Fire Protection;'' 10 CFR 50.48, ''Fire Protection;'' Appendix R, ''Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979,'' to 10 CFR Part 50; regulatory guides; generic communications (*e.g.,* generic letters [GLs], regulatory issue summaries [RISs], bulletins, and information notices [INs]); NUREG-series reports, including NUREG–0800, ''Standard Review Plan [SRP] for the Review of Safety Analysis Reports for Nuclear Power Plants;'' and industry standards. Since not all of the fire protection regulations promulgated by the NRC apply to all plants, this guide does not categorize them as regulations. Licensees should refer to their plant-specific licensing bases to determine the applicability of a specific regulation to a specific plant.

The NRC staff developed this guide to provide a comprehensive fire protection guidance document and to identify the scope and depth of fire protection that the staff would consider acceptable for nuclear power plants. The original issue of this guide addressed only plants operating as of January 1, 2001. Revision 1 of the document added guidance for new reactor designs and incorporated the guidance previously included in Branch Technical Position (BTP) SPLB 9.5–1, ''Guidelines for Fire Protection for Nuclear Power Plants (formerly BTP CMEB 9.5–1).'' DG–1214 incorporates guidance related to analysis of safe-shutdown capabilities as found in regulatory position 5.3.

II. Further Information

The NRC staff is soliciting comments on DG–1214. Comments may be accompanied by relevant information or supporting data and should mention DG–1214 in the subject line. Comments submitted in writing or in electronic form will be made available to the public in their entirety through the NRC's Agencywide Documents Access and Management System (ADAMS).

Personal information will not be removed from your comments. You may submit comments by any of the following methods:

1. Mail comments to: Rulemaking, Directives, and Editing Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

2. E-mail comments to: *nrcrep.resource@nrc.gov*.

Requests for technical information about DG–1214 may be directed to the NRC contact, Dan Frumkin at (301) 415–2280 or e-mail to *Dan.Frumkin@nrc.gov.*

Comments would be most helpful if received by May 29, 2009. Comments received after that date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date. Although a time limit is given, comments and suggestions in connection with items for inclusion in guides currently being developed or improvements in all published guides are encouraged at any time.

Electronic copies of DG–1214 are available through the NRC's public Web site under Draft Regulatory Guides in the ''Regulatory Guides'' collection of the NRC's Electronic Reading Room at *http://www.nrc.gov/reading-rm/doc-collections/*. Electronic copies are also available in ADAMS (*http://www.nrc.gov/reading-rm/adams.html*), under Accession No. ML090070453.

In addition, regulatory guides are available for inspection at the NRC's Public Document Room (PDR), which is located at 11555 Rockville Pike, Rockville, Maryland. The PDR's mailing address is USNRC PDR, Washington, DC 20555–0001. The PDR can also be reached by telephone at (301) 415–4737 or (800) 397–4205, by fax at (301) 415–3548, and by e-mail to *pdr.resource@nrc.gov.*

Regulatory guides are not copyrighted, and Commission approval is not required to reproduce them.

Dated at Rockville, Maryland, this 7th day of April 2009.

For the Nuclear Regulatory Commission.

Andrea D. Valentin,

Chief, Regulatory Guide Development Branch, Division of Engineering, Office of Nuclear Regulatory Research.

[FR Doc. E9–9099 Filed 4–20–09; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards

In accordance with the purposes of Sections 29 and 182b of the Atomic Energy Act (42 U.S.C. 2039, 2232b), the Advisory Committee on Reactor Safeguards (ACRS) will hold a meeting on May 7–9, 2009, 11545 Rockville Pike, Rockville, Maryland. The date of this meeting was previously published in the **Federal Register** on Monday, October 6, 2008 (73 FR 58268–58269).

Thursday, May 7, 2009, Conference Room T–2b3, Two White Flint North, Rockville, Maryland

8:30 a.m.–8:35 a.m.: Opening Remarks by the ACRS Chairman (Open)—The ACRS Chairman will make opening remarks regarding the conduct of the meeting.

8:35 a.m.–10:30 a.m.: Proposed Rule on Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the proposed rule on a voluntary risk-informed alternative to the current requirements of emergency core cooling systems, and related matters.

10:45 a.m.–12:15 p.m.: Proposed Resolution of Generic Safety Issue (GSI)–163, ''Multiple Steam Generator Tube Leakage'' (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the proposed resolution of GSI–163 regarding multiple steam generator tube leakage, and related matters.

1:15 p.m.–2:45 p.m.: Draft Final Regulatory Guide 1.214, ''Response Procedures for Potential or Actual Aircraft Attacks'' (Open/Closed)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the draft final Regulatory Guide 1.214 and related matters. [**Note**:

A portion of this Session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b(c)(3).]

3 p.m.–4:30 p.m.: Status and Update Concerning Revisions to the AP1000 Design Control Document (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff on the current status of the activities associated with the revisions to the AP1000 Design Control Document and related matters.

4:45 p.m.–5 p.m.: Subcommittee Report (Open)—The Committee will hear a report by and hold discussions with the Chairman of the Safety Research Program Subcommittee regarding several-seismic related issues that were discussed during the meeting on April 16–17, 2009.

5 p.m.–7 p.m.: Preparation of ACRS Reports (Open/Closed)—The Committee will discuss proposed ACRS reports on matters discussed during this meeting. [**Note:** A portion of this Session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b (c)(3).]

Friday, May 8, 2009, Conference Room T–2b3, Two White Flint North, Rockville, Maryland

8:30 a.m.–8:35 a.m.: Opening Remarks by the ACRS Chairman (Open)—The ACRS Chairman will make opening remarks regarding the conduct of the meeting.

8:35 a.m.–10 a.m.: Preparation for Meeting with the Commission on June 4, 2009 (Open)—The Committee will hear presentations by and hold discussions with representatives of the NRC staff regarding the following topics scheduled for the meeting with the Commission on June 4, 2009: Containment Overpressure Credit Issue, Pressurized Thermal Shock Rule, Digital Instrumentation and Control Matters, and Options to Revise NRC Regulations Based on the International Commission on Radiation Protection (ICRP) Recommendations/Progress on Recommendations of the Independent External Review Panel on Materials Licensing Program.

10:15 a.m.–11:15 a.m.: Quality Assessment of Selected Research Projects (Open)—The Committee will hear reports by and hold discussions with the members of the ACRS Panels regarding the quality assessment of the NRC research projects on: NUREG–6964, ''Crack Growth Rates and Metallographic Examinations of Alloy 600 and Alloy 82/182 from Field and Laboratory Materials Testing in PWR Environments,'' and Draft NUREG–xxxx, ''Diversity Strategies for Nuclear Power Plant Instrumentation and Control Systems.''

11:15 a.m.–12 p.m.: Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open/Closed)—The Committee will discuss the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the full Committee during future ACRS meetings and other matters related to the conduct of the ACRS business.

[**Note:** A portion of this Session may be closed pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.]

12 p.m.–12:15 p.m.: Reconciliation of ACRS Comments and Recommendations (Open)—The Committee will discuss the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

1:15 p.m.–7:00 p.m.: Preparation of ACRS Reports (Open/Closed)—The Committee will discuss proposed ACRS reports. [**Note:** A portion of this Session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b(c)(3).]

Saturday, May 9, 2009, Conference Room T–2b3, Two White Flint North, Rockville, Maryland

8:30 a.m.–12:30 p.m.: Preparation of ACRS Reports (Open/Closed)—The Committee will continue its discussion of proposed ACRS reports. [**Note:** A portion of this Session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b(c)(3).]

12:30 p.m.–1 p.m.: Miscellaneous (Open)—The Committee will discuss matters related to the conduct of Committee activities and specific issues that were not completed during previous meetings, as time and availability of information permit.

Procedures for the conduct of and participation in ACRS meetings were published in the **Federal Register** on October 6, 2008 (73 FR 58268–58269). In accordance with those procedures, oral or written views may be presented by members of the public, including representatives of the nuclear industry. Electronic recordings will be permitted only during the open portions of the meeting. Persons desiring to make oral statements should notify the Cognizant ACRS staff named below five days before the meeting, if possible, so that appropriate arrangements can be made to allow necessary time during the meeting for such statements. Use of still, motion picture, and television cameras during the meeting may be limited to selected portions of the meeting as determined by the Chairman. Information regarding the time to be set aside for this purpose may be obtained by contacting the Cognizant ACRS staff prior to the meeting. In view of the possibility that the schedule for ACRS meetings may be adjusted by the Chairman as necessary to facilitate the conduct of the meeting, persons planning to attend should check with the Cognizant ACRS staff if such rescheduling would result in major inconvenience.

In accordance with Subsection 10(d) Public Law 92–463, I have determined that it may be necessary to close a portion of this meeting noted above to discuss security and safeguards information pursuant to 5 U.S.C. 552b(c)(3) and organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS, and information the release of which constitute a clearly unwarranted invasion of personal privacy pursuant to 5 U.S.C. 552b(c)(2) and (6).

Further information regarding topics to be discussed, whether the meeting has been canceled or rescheduled, as well as the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor can be obtained by contacting Girija Shukla, Cognizant ACRS staff (301–415–6855), between 7:15 a.m. and 5 p.m. (ET). ACRS meeting agenda, meeting transcripts, and letter reports are available through the NRC Public Document Room at *pdr.resource@nrc.gov,* or by calling the PDR at 1–800–397–4209, or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS) which is accessible from the NRC Web site at http://*www.nrc.gov/reading-rm/adams.html* or *http://www.nrc.gov/reading-rm/doc-collections/ACRS/.*

Video teleconferencing service is available for observing open sessions of ACRS meetings. Those wishing to use this service for observing ACRS meetings should contact Mr. Theron Brown, ACRS Audio Visual Technician (301–415–8066), between 7:30 a.m. and 3:45 p.m., (ET), at least 10 days before the meeting to ensure the availability of this service. Individuals or organizations requesting this service will be responsible for telephone line charges and for providing the equipment and facilities that they use to establish the video teleconferencing

link. The availability of video teleconferencing services is not guaranteed.

Dated: April 15, 2009.

Annette L. Vietti Cook,

Secretary of the Commission.

[FR Doc. E9–9101 Filed 4–20–09; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Sunshine Federal Register Notice

AGENCY HOLDING THE MEETINGS: Nuclear Regulatory Commission.

DATES: Weeks of April 20, 27, May 4, 11, 18, 25, 2009.

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public and Closed.

Week of April 20, 2009

Thursday, April 23, 2009

2 p.m. Briefing on Radioactive Source Security (Public Meeting) (*Contact:* Kim Lukes, 301–415–6701).

This meeting will be webcast live at the Web address—*www.nrc.gov.*

Week of April 27, 2009—Tentative

There are no meetings scheduled for the week of April 27, 2009.

Week of May 4, 2009—Tentative

There are no meetings scheduled for the week of May 4, 2009.

Week of May 11, 2009—Tentative

Thursday, May 14, 2009

9 a.m. Briefing on the Results of the Agency Action Review Meeting (Public Meeting) (*Contact:* Shaun Anderson, 301–415–2039).

This meeting will be webcast live at the Web address—*www.nrc.gov.*

Week of May 18, 2009—Tentative

There are no meetings scheduled for the week of May 18, 2009.

Week of May 25, 2009—Tentative

Wednesday, May 27, 2009

9:30 a.m. Briefing on External Safety Culture (Public Meeting) (*Contact:* Stewart Magruder, 301–415–8730).

This meeting will be webcast live at the Web address—*www.nrc.gov.*

Wednesday, May 27, 2009:

1:30 p.m. Briefing on Internal Safety Culture (Public Meeting) (*Contact:* June Cai, 301–415–5192).

This meeting will be webcast live at the Web address—*www.nrc.gov.*

Thursday, May 28, 2009

9:30 a.m. Briefing on Fire Protection Closure Plan (Public Meeting) (*Contact:* Alex Klein, 301–415–2822).

This meeting will be webcast live at the Web address—*www.nrc.gov.*

* * * * *

*The schedule for Commission meetings is subject to change on short notice. To verify the status of meetings, call (recording)—(301) 415–1292. Contact person for more information: Rochelle Bavol, (301) 415–1651.

* * * * *

The NRC Commission Meeting Schedule can be found on the Internet at: www.nrc.gov/about-nrc/policy-making/schedule.html.

* * * * *

The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If you need a reasonable accommodation to participate in these public meetings, or need this meeting notice or the transcript or other information from the public meetings in another format (*e.g.*, braille, large print), please notify the NRC's Disability Program Coordinator, Rohn Brown, at 301–492–2279, *TDD:* 301–415–2100, or by e-mail at *rohn.brown@nrc.gov.* Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

* * * * *

This notice is distributed electronically to subscribers. If you no longer wish to receive it, or would like to be added to the distribution, please contact the Office of the Secretary, Washington, DC 20555 (301–415–1969), or send an e-mail to *darlene.wright@nrc.gov.*

Dated: April 16, 2009.

Rochelle C. Bavol,

Office of the Secretary.

[FR Doc. E9–9196 Filed 4–17–09; 4:15 pm]

BILLING CODE 7590–01–P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 28696; 812–13400]

ProShares Trust, et al.; Notice of Application

April 14, 2009.

AGENCY: Securities and Exchange Commission (''Commission'').

ACTION: Notice of an application to amend a prior order under section 6(c) of the Investment Company Act of 1940 (''Act'') granting an exemption from sections 2(a)(32), 5(a)(1), 22(d) and 24(d) of the Act and rule 22c–1 under the Act, and under sections 6(c) and 17(b) of the Act for an exemption from sections 17(a)(1) and 17(a)(2) of the Act.

APPLICANTS: ProShares Trust (''Trust'') and ProShare Advisors LLC (''Adviser'').

SUMMARY OF APPLICATION: Applicants request an order to amend a prior order that permits: (a) Series of an open–end management investment company (''Initial Funds'') to issue shares redeemable in large aggregations only (''Creation Unit Aggregations''); (b) secondary market transactions in the shares to occur at negotiated prices; (c) dealers to sell the shares to purchasers in the secondary market unaccompanied by a prospectus, when prospectus delivery is not required by the Securities Act of 1933 (''Securities Act''); and (d) certain affiliated persons of the Initial Funds to deposit securities into, and receive securities from, the Initial Funds in connection with the purchase and redemption of Creation Unit Aggregations (''Prior Order'').[1] Applicants seek to amend the Prior Order to: (a) Provide greater operational flexibility to the Funds (defined below); (b) expand the category of Funds designed to correspond to the return of an Underlying Index (defined below) (''Matching Funds'') to include Funds that seek to match the performance of an Underlying Index primarily focused on United States equity securities that applies a strategy referred to as 130/30 (''130/30 Funds''); (c) permit Funds that are based on foreign equity securities indices (''Foreign Equity Funds'') to pay redemption proceeds under certain circumstances more than seven days after the tender of a Creation Unit Aggregation for redemption, but in any event within a period not to exceed 14 calendar days; (d) delete a condition related to future relief in the Prior Order and permit applicants to offer additional series using underlying securities indices (collectively, ''Underlying Indices'' or individually, ''Underlying Index'') different than those permitted under the Prior Order; (e) delete the relief granted in the Prior Order from section 24(d) of the Act and revise the applications on which the Prior Order was issued (''Prior Applications'') accordingly; and (f) amend the terms and conditions of the Prior Applications with respect to certain disclosure requirements.

[1] ProShares Trust, et al., Investment Company Act Release Nos. 27323 (May 18, 2006) (notice) and 27394 (June 13, 2006) (order), amended by Investment Company Act Release Nos. 27609 (Dec. 22, 2006) (notice) and 27666 (Jan. 18, 2007) (order) and further amended by Investment Company Act Release Nos. 27975 (Sep. 21, 2007) (notice) and 28014 (Oct. 17, 2007) (order).

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

April 14, 2009

AGENDA
562nd ACRS MEETING
MAY 7-9, 2009

THURSDAY, MAY 7, 2009, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

1) 8:30 – 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (MVB/EMH/SD)
- 1.1) Opening statement
- 1.2) Items of current interest

2) 8:35 – 10:30 A.M. Proposed Rule on Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements (Open) (WJS/DEB/HPN)
- 2.1) Remarks by the Subcommittee Chairman
- 2.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed rule on a voluntary risk-informed alternative to the current requirements of emergency core cooling systems, and related matters.

Representatives of the nuclear industry and members of the public may provide their views, as appropriate.

10:30 – 10:45 A.M. * BREAK *****

3) 10:45 – 12:15 P.M. Proposed Resolution of Generic Safety Issue (GSI) - 163, "Multiple Steam Generator Tube Leakage" (Open) (DAP/CLB)
- 3.1) Remarks by the Subcommittee Chairman
- 3.2) Briefing by and discussions with representatives of the NRC staff regarding the proposed resolution of GSI-163 regarding multiple steam generator tube leakage, and related matters.

Representatives of the nuclear industry and members of the public may provide their views, as appropriate.

12:15 – 1:15 P.M. * LUNCH *****

4) 1:15 – 2:45 P.M. Draft Final Regulatory Guide 1.214, "Response Procedures for Potential or Actual Aircraft Attacks" (Open/Closed) (OLM/MB)

4.1) Remarks by the Subcommittee Chairman

4.2) Briefing by and discussions with representatives of the NRC staff regarding the draft final Regulatory Guide 1.214 and related matters.

Representatives of the nuclear industry and members of the public may provide their views, as appropriate.

[NOTE: A portion of this session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b (c)(3)]

2:45 – 3:00 P.M. * BREAK *****

5) 3:00 – 4:30 P.M. Status and Update Concerning Revisions to the AP1000 Design Control Document (Open) (HBR/MPL)

5.1) Remarks by the Subcommittee Chairman

5.2) Briefing by and discussions with representatives of the NRC staff regarding the current status of the activities associated with the revisions to the AP1000 Design Control Document and related matters.

Representatives of the nuclear industry and members of the public may provide their views, as appropriate.

4:30 – 4:45 P.M. * BREAK *****

6) 4:45 – 5:00 P.M. Subcommittee Report (Open) (DAP/MPL)
Report by and discussions with the Chairman of the Safety Research Program Subcommittee regarding several seismic-related issues that were discussed during the meeting on April 16-17, 2009.

7) 5:00 – 7:00 P.M. Preparation of ACRS Reports (Open/Closed)
Discussion of proposed ACRS reports on:

7.1) Proposed Rule on Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements" (WJS/DEB/HPN)

7.2) Proposed Resolution of Generic Safety Issue (GSI) - 163, "Multiple Steam Generator Tube Leakage" (DAP/CLB)

7.3) Draft Final Regulatory Guide 1.214, "Response Procedures for Potential or Actual Aircraft Attacks" (OLM/MB) (Open/Closed)

[NOTE: A portion of this session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b (c)(3)]

FRIDAY, MAY 8, 2009, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

8) 8:30 – 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (MVB/CS/SD)

9) 8:35 – 10:00 A.M. Preparation for Meeting with the Commission on June 4, 2009 (Open) (MVB, et al. /EMH, et al.)
Discussion of following topics scheduled for the meeting with the Commission on June 4, 2009:
- Overview
- Containment Overpressure Credit Issue
- Pressurized Thermal Shock Rule
- Digital Instrumentation and Control Matters
- Options to Revise NRC Regulations Based on the International Commission on Radiation Protection (ICRP) Recommendations / Progress on Recommendations of the Independent External Review Panel on Materials Licensing Program

10:00 – 10:15 A.M. * BREAK *****

10) 10:15 – 11:15 A.M. Quality Assessment of Selected Research Projects (Open) (DAP/HPN)
10.1) Remarks by the Subcommittee Chairman
10.2) Report by and discussions with members of the ACRS Panels which performed the quality assessment of the NRC research projects on: NUREG-6964, "Crack Growth Rates and Metallographic Examinations of Alloy 600 and Alloy 82/182 from Field and Laboratory Materials Testing in PWR Environments," and Draft NUREG-xxxx, "Diversity Strategies for Nuclear Power Plant Instrumentation and Control Systems."

11) 11:15 – 12:00 P.M. Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open/Closed) (MVB/EMH)
11.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the Full Committee during future ACRS meetings.
11.2) Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, including anticipated workload and member assignments.

[NOTE: A portion of this session may be closed pursuant to 5 U.S.C. 552b (c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS, and information the release of

which would constitute a clearly unwarranted invasion of personal privacy]

12) 12:00 – 12:15 P.M. Reconciliation of ACRS Comments and Recommendations (Open) (MVB/CS/AFD)
Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

12:15 – 1:15 P.M. * LUNCH *****

13) 1:15 – 7:00 P.M. Preparation of ACRS Reports (Open/Closed)
Discussion of proposed ACRS reports on:
13.1) Proposed Rule on Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements" (WJS/DEB/HPN)
13.2) Proposed Resolution of Generic Safety Issue (GSI) - 163, "Multiple Steam Generator Tube Leakage" (DAP/CLB)
13.3) Draft Final Regulatory Guide 1.214, "Response Procedures for Potential or Actual Aircraft Attacks" (OLM/MB) (Open/Closed)

[NOTE: A portion of this session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b (c)(3)]

SATURDAY, MAY 9, 2009, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

14) 8:30 – 12:30 P.M. Preparation of ACRS Reports (Open/Closed)
(10:30-10:45 A.M. BREAK) Continue discussion of the proposed ACRS reports listed under Item 13.

[NOTE: A portion of this session may be closed to protect security and safeguards information pursuant to 5 U.S.C. 552b (c)(3)]

15) 12:30 – 1:00 P.M. Miscellaneous (Open) (MVB/EMH)
Discussion of matters related to the conduct of Committee activities and specific issues that were not completed during previous meetings, as time and availability of information permit.

NOTES:

- During the days of the meeting, phone number 301-415-7360 should be used in order to access anyone in the ACRS Office.

- Presentation time should not exceed 50 percent of the total time allocated for a given item. The remaining 50 percent of the time is reserved for discussion.

- Thirty five (35) hard copies and one (1) electronic copy of the presentation materials should be provided to the ACRS in advance of the briefing.

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
562nd FULL COMMITTEE MEETING

May 7- 9, 2009

PLEASE PRINT

TODAY'S DATE: May 7, 2009

	NAME	NRC ORGANIZATION
1	RALPH LANDRY	NRC/DSRA
2	Stephen Dinsmore	NRC/NRR/DRA
3	STEVEN A. LAUR	NRC/NRR/DRA
4	Tim Collins	NRR/DSS
5	Rob Tregoning	RBS/NOB
6	Alexander Tsirigotis	NRR/DE
7	Aleem Boatright	NRR/DRA
8	Ben Beasley	RES/DRA
9	John Kauffman	RES/DRA/OEGIB
10	Kevin Coyne	RES/DRA/PRAB
11	M GAVRILAS	NRR/DCI/CSGB
12	Michele Evans	NRR/DCI
13	JOHN W. LUBINSKI	NRR/DCI
14	Asimios Malliakos	RES/DRA/OEGIB
15	Mehdi Reisi Fard	RES/DRA/OEGIB
16	PREM P. SAHAY	NRR/DE/EEEB.
17	BOB PALLA	NRR/DRA/APLA
18	Charles Harris	RES/DE/CMB
19	Selim Sancaktar	RES/DRA/PRAB
20	Ken Karwoski	NRC/NRR/DCI
21	Rachel Vaughan	NRC/NRR/ASA
22	Andrew Johnson	NRR/DCI/CSGB
23	Tina Ghosh	NRR/DRA/APLA
24	Doug Coe	RES/DRA
25	Allen Hiser	NRR/DLR
26	Dennis Gordon	NRC/NSIR/DSP
27	Vince Williams	NRC/NSIR/DSP
28	Todd Hilsmeier	NRC/NRR/SPLB

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
562nd FULL COMMITTEE MEETING

May 7- 9, 2009

PLEASE PRINT

TODAY'S DATE: May 7, 2009

	NAME	NRC ORGANIZATION
1	Mohammed Shuaibi	NRC/~~NSIR~~ NSIR/OSP
2	David Diec	NRC/NSIR
3	Alan Shropshire	NRC/NSIR
4	William Gott	NRC NSIR
5	Doug Huyck	NRC/NSIR
6	Stephanie Coffin	NRO/DNRL/NWE1
7	Eileen McKenna	NRO/DNRL/NWE2
8	Joe Sebrosky	NRO/DNRL/NWE1
9	Janelle B. Jessie	NRO/DNRL/NGE1
10	Sujata Goetz	NRO/DNRL/~~NWE1~~ NWE1
11	Tom Kevern	NRO/DSEN/RCE1
12	David Terao	NRO/DE/CIB1
13	Joseph Colaccino	NRO/DNRL/NARP
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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
562nd FULL COMMITTEE MEETING

May 7-9, 2009

PLEASE PRINT

TODAY'S DATE: May 7, 2009

	NAME	AFFILIATION
1	Carl Berger	Energetics
2	Maureen Conley	Platts/McGraw-Hill
3	Spyros Traiforos	LINK
4	Amy Aughtman	SNC
5	[illegible] S/C	WEC
6	SKOWKABANY	ENERCON
7	ED CUMMINS	WESTINGHOUSE
8	Wes Sparkman	SNC
9	Peter Hastings	Duke Energy / NuStart
10	RICHARD GRUMBIR	NUSTART
11	Andrea Sterdis	TVA
12	THOMAS SPINK	TVA
13	DAVE WATERS	PROGRESS ENERGY
14	Jack A. Bailey	TVA
15	Jean-Pierre BERGER	EDF
16	GORDON P. Arent	TVA
17	MATTHEW Williams	Unistar
18	Eddie R Grant	NuStart
19	Ashok S. Bhatnagar	TVA
20	Dan Stout	TVA
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001

May 12, 2009

AGENDA
563rd ACRS MEETING
JUNE 3-5, 2009

WEDNESDAY, JUNE 3, 2009, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

1) 8:30 – 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (MVB/EMH/SD)
- 1.1) Opening statement
- 1.2) Items of current interest

2) 8:35 – 9:45 A.M. License Renewal Application and the Revised Final Safety Evaluation Report for the National Institute of Standards and Technology (NIST) Reactor (Open) (JDS/PW)
- 2.1) Remarks by the Subcommittee Chairman
- 2.2) Briefing by and discussions with representatives of the NRC staff and NIST regarding the License Renewal Application for the NIST Reactor, the associated NRC staff's revised final SER, and related matters.

Members of the public may provide their views, as appropriate.

9:45 – 10:00 A.M. ***** BREAK *****

3) 10:00 – 12:00 P.M. Draft Final Regulatory Guides 1.21 and 4.1 (Open) (MTR/NMC)
- 3.1) Remarks by the Subcommittee Chairman
- 3.2) Briefing by and discussions with representatives of the NRC staff regarding Draft Final Regulatory Guide 1.21 (DG-1186), "Measuring, Evaluating, and Reporting Radioactive Materials in Liquid and Gaseous Effluents and Solid Wastes," and related matters.
- 3.3) Briefing by and discussions with representatives of the NRC staff regarding Draft Final Regulatory Guide 4.1 (DG-4013), "Radiological Environmental Monitoring for Nuclear Power Plants," and related matters.

Representatives of the nuclear industry and members of the public may provide their views, as appropriate.

12:00 – 1:00 P.M. ***** LUNCH *****

4) 1:00 – 3:00 P.M. Pellet-Clad Interaction Failures under Extended Power Uprate Conditions (Open/Closed) (JSA/MLB)

4.1) Remarks by the Subcommittee Chairman

4.2) Briefing by and discussions with representatives of the NRC staff and nuclear industry regarding pellet-clad interaction failures under extended power uprate conditions, and related matters.

Members of the public may provide their views, as appropriate.

[NOTE: A portion of this Session may be closed pursuant to 5 U.S.C. 552b (c)(4) to discuss information that is proprietary to Global Nuclear Fuel (GNF) and/or Westinghouse, or their contractors]

3:00 – 3:15 P.M. ***** BREAK *****

5) 3:15 – 4:45 P.M. Diversity and Defense-in-Depth Topical Report Associated with the US-APWR Design (Open) (OLM/NMC)

5.1) Remarks by the Subcommittee Chairman

5.2) Briefing by and discussions with representatives of the NRC staff and Mitsubishi Heavy Industries, Ltd. regarding the Diversity and Defense-in-Depth Topical Report and the associated NRC staff's Safety Evaluation report associated with the US-Advanced Pressurized Water Reactor (US-APWR) Design and related matters.

Members of the public may provide their views, as appropriate.

4:45 – 5:00 P.M. ***** BREAK *****

6) 5:00 – 5:15 P.M. Subcommittee Report (Open) (GEA/DCB/GSS/YKS)

Report by and discussions with the Chairmen of the Reliability and PRA Subcommittee regarding (i) proposed Rev. 1 to Regulatory Guide 1.205, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants," and proposed Standard Review Plan Section 9.5.1.2, "Risk-Informed, Performance-Based Fire Protection," (ii) development of guidelines for performing human reliability analysis in fire probabilistic risk assessments, and (iii) risk metrics for new light-water reactor risk-informed applications, that were discussed during the meeting on June 1-2, 2009.

7) 5:15 – 7:00 P.M. Preparation of ACRS Reports (Open)

Discussion of proposed ACRS reports on:

7.1) License Renewal Application and the Revised Final Safety Evaluation Report for the National Institute of Standards and Technology (NIST) Reactor (JDS/PW)

7.2) Draft Final Regulatory Guides 1.21 and 4.1 (MTR/NMC)
7.3) Pellet-Clad Interaction Failures under Extended Power Uprate Conditions (JSA/MLB)
7.4) Diversity and Defense-in-Depth Topical Report Associated with the US-APWR Design (OLM/NMC)

THURSDAY, JUNE 4, 2009, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

8) 8:30 – 8:35 A.M. Opening Remarks by the ACRS Chairman (Open) (MVB/CS/SD)

9) 8:35 – 9:30 A.M. Quality Assessment of Selected Research Projects (Open) (DAP/HPN)
9.1) Remarks by the Subcommittee Chairman
9.2) Report by and discussions with members of the ACRS Panels which performed the quality assessment of the NRC research projects on: NUREG/CR-6964, "Crack Growth Rates and Metallographic Examinations of Alloy 600 and Alloy 82/182 from Field and Laboratory Materials Testing in PWR Environments," and Draft NUREG/CR-XXXX, "Diversity Strategies for Nuclear Power Plant Instrumentation and Control Systems."

9:30 – 9:45 A.M. * BREAK *****

10) 9:45 – 10:45 A.M. Future ACRS Activities/Report of the Planning and Procedures Subcommittee (Open/Closed) (MVB/EMH)
10.1) Discussion of the recommendations of the Planning and Procedures Subcommittee regarding items proposed for consideration by the Full Committee during future ACRS meetings.
10.2) Report of the Planning and Procedures Subcommittee on matters related to the conduct of ACRS business, including anticipated workload and member assignments.

[NOTE: A portion of this session may be closed pursuant to 5 U.S.C. 552b (c)(2) and (6) to discuss organizational and personnel matters that relate solely to internal personnel rules and practices of ACRS, and information the release of which would constitute a clearly unwarranted invasion of personal privacy]

11) 10:45 – 11:00 A.M. Reconciliation of ACRS Comments and Recommendations (Open) (MVB/CS/AFD)
Discussion of the responses from the NRC Executive Director for Operations to comments and recommendations included in recent ACRS reports and letters.

11:00- 11:15 A.M. *****BREAK*****

12) 11:15 – 12:15 P.M. Discussion of Topics for Meeting with the Commission (Open) (MVB, et al./EMH, et al.)
Discussion of following topics for meeting with the Commission:

- Overview
- Crediting Containment Accident Pressure in the NPSH Calculations
- Pressurized Thermal Shock Rule
- Digital Instrumentation and Control Matters
- Options to Revise NRC Regulations Based on the International Commission on Radiation Protection (ICRP) Recommendations / Progress on Recommendations of the Independent External Review Panel on the Materials Licensing Program

12:15 – 1:30 P.M. ***** LUNCH *****

13) 1:30 – 3:30 P.M. Meeting with the Commission (Open) (MVB, et al. /EMH, et al.)
Meeting with the Commission, Commissioners' Conference Room, One White Flint North, to discuss topics listed under Item 12.

3:30 – 4:00 P.M. ***** BREAK *****

14) 4:00 – 7:00 P.M. Preparation of ACRS Reports (Open)
Discussion of proposed ACRS reports on:

14.1) License Renewal Application and the Revised Final Safety Evaluation Report for the National Institute of Standards and Technology (NIST) Reactor (JDS/PW)
14.2) Draft Final Regulatory Guides 1.21 and 4.1 (MTR/NMC)
14.3) Pellet-Clad Interaction Failures under Extended Power Uprate Conditions (JSA/MLB)
14.4) Diversity and Defense-in-Depth Topical Report Associated with the US-APWR Design (OLM/NMC)

FRIDAY, JUNE 5, 2009, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH, ROCKVILLE, MARYLAND

15) 8:30 – 12:30 P.M. Preparation of ACRS Reports (Open)
(10:30-10:45 A.M. BREAK) Continue discussion of the proposed ACRS reports listed under Item 14.

16) 12:30 – 1:00 P.M. Miscellaneous (Open) (MVB/EMH)
Discussion of matters related to the conduct of Committee activities and specific issues that were not completed during previous meetings, as time and availability of information permit.

NOTES:

- During the days of the meeting, phone number 301-415-7360 should be used in order to access anyone in the ACRS Office.

- Presentation time should not exceed 50 percent of the total time allocated for a given item. The remaining 50 percent of the time is reserved for discussion.

- Thirty five (35) hard copies and one (1) electronic copy of the presentation materials should be provided to the ACRS in advance of the briefing.

Appendix IV

LIST OF DOCUMENTS FROM THE
562ND ACRS MEETING MAY 5-7, 2009

Agenda Item 2:
Proposed Rule on Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements

1. Proposed Schedule
2. Status Report
3. Attachments
   - ACRS Letter of December 20, 2007
   - ACRS Letter of November 16, 2006
   - ACRS Letter of March 14, 2005
   - ACRS Letter of December 17, 2004
   - ACRS Letter of December 10, 2004
   - ACRS Letter of April 27, 2004
   - ACRS Letter of July 25, 2001
   - ACRS Letter of November 20, 2000
   - ACRS Letter of May 19, 1999
   - COMMISSIONER DIAZ' COMMENTS ON SECY-02-0057 AND THE LOCA

Agenda Item 3:
Proposed Resolution of Generic Safety Issue (GSI) - 163, "Multiple Steam Generator Tube Leakage"

4. Proposed Agenda
5. Status Report
6. Attachments
   - NUREG 1740
   - Memorandum (and Attachments) from Michele G. Evans, Director Division of Component Integrity, Office of Nuclear Reactor Regulation, to Edwin M. Hackett, Executive Director, Advisory Committee for Reactor Safeguards, Subject: Proposed Closeout Package -Generic Safety Issue-163, "Multiple Steam Generator Tube Leakage"

Appendix IV

LIST OF DOCUMENTS FROM THE
562ND ACRS MEETING MAY 5-7, 2009

Agenda Item 3:
Draft Final Regulatory Guide 1.214, "Response Procedures for Potential or Actual Aircraft Attacks"

7. Proposed Schedule
8. Status Report
9. Attachments
   - ACRS letter, "Resolution of Certain Items Identified by the ACRS In NUREG-1740, "Voltage-Based Alternative Repair Criteria", dated 5/24/2004
   - ACRS letter, NRC Action Plan to Address the Differing Professional Opinion Issues on Steam Generator Tube Integrity Issues, dated 10/18/2001
   - ACRS letter, Response to Your May 7, 2001 Memorandum Regarding Differing Professional Opinion on Steam Generator Tube Issues, dated 6/14/2001
   - Memo to the NRC Chairman, Response to Your May 7, 2001 Memorandum Regarding Differing Professional Opinion on Steam Generator Tube Issues, dated 6/1/2001
   - Memo to the Commission Differing Professional Opinion On Steam Generator Tube Integrity Issues, dated 4/24/2001
   - NUREG- 1740, Voltage-Based Alternative Repair Criteria, prepared by the ACRS Ad Hoc Subcommittee on Differing Professional Opinion
   - ACRS letter, Resolution of Certain Items Identified by The Advisory Committee On Reactor Safeguards In Nureg-1740, "Voltagebased Alternative Repair Criteria", dated 8/25/2004

Agenda Item 4:
Draft Final Regulatory Guide 1.214, "Response Procedures for Potential or Actual Aircraft Attacks"
10. Table of Contents
11. Proposed Meeting Agenda
12. Status Report

Agenda Item 5:
Status and Update Concerning Revisions to the AP1000 Design Control Document

13. Status Report
14 Proposed Schedule

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Advisory Committee on Reactor Safety

May 6-7, 2009

Stephen Dinsmore
Senior Reliability and Risk Analyst
Office of Nuclear Reactor Regulation

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Overview of the risk-informed change control process

- Risk-Informed evaluation must be performed for all facility changes made under the rule
- Submittal required
  - For all changes made under the rule (unless self-approval is authorized)
  - To request optional self-approval authorization
- Change in risk acceptance criteria and estimates
- PRA update and reporting
- Risk assessment quality requirements
- Defense-in-depth, safety margins, and performance monitoring

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Risk-informed evaluation for changes made under the rule

- **Draft final rule**:

  A staff reviewed and endorsed risk-informed evaluation process required for all facility changes after implementation of rule

- **Revised proposed rule**:

  Risk-informed evaluation required for all facility changes made under the rule

  - Changes enabled by the rule – i.e., all changes that satisfy the revised ECCS analysis under the new 10 CFR 46a but do not satisfy the ECCS requirements under the original 10 CFR 46.
  - Other changes licensees choose to bundle in the change in risk estimate

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Submittal requirements

- **Draft final rule**:
  - Initial submittal to implement the rule - including risk-assessment process
  - Afterwards, submittals only required for facility changes that must otherwise be submitted for NRC review or changes to SSC(s) within the scope of the Maintenance Rule

- *ACRS Comment: Licensees should submit all changes that cause greater than very-small risk increases*

- **Revised proposed rule**:
  - Submittal required for each change unless self-approval authorized
  - Submittal required to request optional self-approval process
  - With authorized self-approval, submittal required for each more-than-minimal risk increase
  - Submittal required to bundle unrelated changes into the change in risk estimate

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Change in risk acceptance criteria

- **Draft final rule**:

  Total increases in CDF and LERF [from all facility changes] are small and the overall risk remains small.

- *ACRS Comment: significant departure from current risk informed guidance which should be reviewed for its implications.*

- **Revised proposed rule**:

  Total increases in CDF and LERF [for changes made under the rule] are very small and the overall risk remains small.

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Change in risk estimates

- **Draft final rule**:

  Total cumulative risk increase estimate required - which could be estimated from the "current" CDF and LERF minus the CDF and LERF at time of rule implementation

- *ACRS comment: significant departure from current risk informed guidance which should be reviewed for its implications*

- **Revised proposed rule**:

  The cumulative effect of previous changes made under the rule that have increased risk but have met the acceptance criteria shall be evaluated

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

PRA update and reporting (no substantive changes)

PRA update

- No less than every two refueling outages
- After the update, licensee shall take appropriate action to ensure that the acceptance criteria are met

PRA reporting requirements

- Corrective actions and schedule if acceptance criteria are exceeded after an update
- Every 24 months, a short description of all self-approved changes since last report (if applicable)

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Risk assessment quality requirements (no substantive changes):

- PRA must address internal events, external events, full power, low power, and shutdown that would affect the regulatory decision in a substantial manner
- The PRA must
  - (Draft final rule: calculate CDF and LERF)
  - reasonably represent current configuration and operational practices
  - have sufficient technical adequacy and level of detail
  - have been subjected to industry peer review process
- Risk assessment other than PRA must be developed using an integrated, systematic process (Draft final rule: non PRA assessments shall produce “realistic results”).

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Maintain defense-in-depth:

- **Draft final rule**

  Includes specific defense-in-depth attributes from RG 1.174 to make them criteria

- **Revised proposed rule**

  Includes the specific attributes plus additional criteria for credited non-safety-related equipment

  - Identified in TechSpecs (TechSpec change precludes self-approval)
  - Described in the submittal
  - Readily connected to onsite power

10 CFR 50.46a Rulemaking

Risk-Informed Change Control Process

Maintain Adequate Safety Margins (no substantive risk assessment changes)

- Adequate safety margins are retained to account for uncertainties

Implement adequate performance-measurement programs (no substantive risk assessment changes)

- Programs shall be designed to detect degradation before plant safety is compromised

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UNITED STATES NUCLEAR REGULATORY COMMISSION
Protecting People and the Environment

§50.46a Rule to Risk-Inform ECCS Requirements (Redefinition of Large-break LOCA)

ACRS Meeting
May 7, 2009

Tim Collins, Senior Level Advisor
Office of Nuclear Reactor Regulation
Division of Safety Systems
Timothy.Collins@nrc.gov

Overview of Staff Presentation

- Summary of §50.46a rule concept
- Rule background and schedule
- Overview of revised proposed rule and changes made in response to ACRS comments
- Questions/discussion

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§ 50.46a Rule Concept

- Alternative to current ECCS req'ts (50.46)
- LOCAs divided into 2 groups based on break frequency
- Mitigation must be demonstrated for all LOCAs but requirements are relaxed for lower frequency breaks
- Plant changes should be evaluated using a risk informed process

§50.46a Rule Background

Rulemaking initiation

- Commission SRM (March 31, 2003) directed staff to prepare proposed rule
  - Technical basis not completed
  - Staff sought additional guidance (SECY-04-0037, March 2004)
  - Provided in July 2004 SRM
- Proposed rule to Commission (March 2005)
- Commission directed significant changes
- Published November 7, 2005 (70 FR 67598)

§50.46a Rule Background

Original Proposed Rule

- 13 commenters, 11 from nuclear industry
- Most felt process was too burdensome to be cost-effective
- Staff held 3 public meetings;
  - address public comments and reduce rule burden
  - posted revised rule language on website
- Provided draft final rule to ACRS October 16, 2006
- Met with ACRS subcommittee (Oct. 31); full committee (Nov. 1)
- ACRS views in November 16, 2006 letter

§ 50.46a Rule Background

ACRS Letter

- Rule to risk-inform§50.46 should not be issued in its current form
  - Insufficient defense in depth for pipe breaks larger than the TBS
  - Concerns with risk-informed assessment process
  - Concerns with plant specific applicability of expert elicitation and seismic analysis

§50.46a Rule Background

Response to ACRS Letter

- Staff requested additional Commission guidance (SECY-07-0082, May 2007)
  - on issues and rule priority
- Commission SRM - August 2007
  - continue rulemaking on reduced priority basis
  - increase overall defense-in-depth for breaks >TBS
  - elicitation results must be shown to be applicable on plant specific basis
  - Seek ways to enhance leak detection for large pipes
  - Total risk increases limited to “very small”

§50.46a Rule Background

Recent Staff Efforts

- Work resumed early 2008
  - Final rule requirements drafted based on new Commission guidance
- OGC review
  - Need to re-notice portions of rule
  - Because of inter-related requirements, staff to re-publish entire rule

§ 50.46a Rule

Status and Schedule

- Revised rule language made public April 16, 2009 (www.regulations.gov)
- ACRS meeting May 6 -7, 2009
- EDO to sign re-notice – late June 2009
- 45 day comment period
- Public meeting(s)
- Meet with ACRS on final rule (ACRS letter)
- Final rule to Commission nine months after close of comment period (June 2010)

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Overview of Revised Proposed Rule

- Transition break size (same as original rule)
  - PWRs – largest attached pipe to the main coolant piping
  - BWRs – largest feedwater or residual heat removal line inside containment
- Mitigation must be demonstrated for all LOCAs

Initial Conversion to 50.46a

- Demonstrate applicability of Elicitation Report
- Demonstrate applicability of staff seismic study or provide a plant specific study
- Describe process for risk informed evaluation of plant changes
- Add to Tech Specs any non-safety equipment that is credited in analysis of breaks >TBS
- Provide revised ECCS analyses

ECCS Analysis Requirements

- Breaks ≤ TBS
  - No change from current 50.46
- Breaks > TBS
  - No single failure assumption
  - Credit for offsite power
  - Credit for non-safety equipment
  - Alternative metrics for “coolable geometry” may be used if justified
  - ECCS methods must be approved

Subsequent Plant Changes

- Must be risk informed if:
  - Enabled by the rule, or
  - Bundled with enabled changes
- Require staff review unless
  - Licensee has an approved review process, and
  - Increase in risk is ≤ “minimal”, and
  - 50.59 satisfied
- Must not invalidate applicability of elicitation report or seismic studies

Risk Informed Plant Changes

- Meet criteria consistent with RG 1.174 (defense-in-depth, safety margins, monitoring program, and acceptable risk increases)
- Confirm “very small” cumulative risk increase via periodic PRA update
- PRA methods must be of sufficient scope and quality

Other Requirements (con't)

- Maintain leak detection capability for piping larger than TBS to reduce likelihood of breaks > TBS
- Operation is limited to < 14 days per year if breaks > TBS have not been shown to meet acceptance criteria
- Ability to readily connect onsite power must be provided if nonsafety equipment credited in analysis

Applicability to future reactors

- Rule may be used if
  - "similarity" in design and operation is demonstrated
  - appropriate TBS is specified
- NRC design-specific review
  - must approve similarity
  - must approve proposed TBS

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Changes in Defense in Depth for Breaks >TBS

Draft Final Rule	Proposed Revised Rule
No single failure	same
No loss of offsite power	Provide onsite power for accident management to any credited equipment
Use of non-safety equipment with no special treatment	Equipment must be identified in TS and its availability supported by plant specific data

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Changes in Defense in Depth for Breaks >TBS (con't)

Draft Final Rule	Proposed Revised Rule
No prior approval of ECCS methods	Prior approval required
Methods give reasonable representation of system response	Must demonstrate "high probability" that criteria will not be exceeded

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Changes to Risk-assessment Process

Draft Final Rule	Proposed Revised Rule
All facility changes evaluated with an approved risk-informed process	Only facility changes enabled by the rule and unrelated bundled changes evaluated with a risk informed process
Self-approval for all changes a) not required to be submitted under current Regs, b) not in the MRule Scope, and c) do not exceed total risk increase criteria	Self-approval for changes enabled by the rule after evaluation process is approved, and change has less-than-minimal risk increase, and 50.59 is satisfied.

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Changes to Risk-assessment Process (con't)

Draft Final Rule	Proposed Revised Rule
Total increases in CDF and LERF [from all facility changes] are small and the overall risk remains small.	Total increases in CDF and LERF [for changes made under the rule] are very small and the overall risk remains small.
Total cumulative risk increase estimate required - which could be estimated from the "current" CDF and LERF minus the CDF and LERF at time of rule implementation	The cumulative effect of previous changes made under the rule that have increased risk but have met the acceptance criteria shall be evaluated

Risk-Informed Revision of 10 CFR 50.46

Developing Regulatory Guidance for Applicants to Demonstrate that the Transition Break Size is Applicable to Their Plants

Robert L. Tregoning
NRC\RES

ACRS Subcommittee on Regulatory Policies and Practices
May 6, 2009

Presentation Objectives

- Provide brief summary of the research conducted which supported the development of the transition break size (TBS)
- Discuss motivation and objectives for developing regulatory guidance to ensure applicability of the research findings
- Present the scope, philosophy, and general framework envisioned for the regulatory guidance
- Provide the status and schedule for regulatory guidance development

Background: NUREGs-1829 & 1903

- Commission direction (SRM-02-0057)
  - "The staff should provide the Commission a comprehensive 'LOCA failure analysis and frequency estimation' that is realistically conservative and amenable to decision-making … with appropriate margins for uncertainty …".
  - "The staff should use expert elicitation to converge (whenever possible) service-data and PFM results …".

- Application in 10 CFR 50.46a
  - NUREG-1829: Develop part of the technical basis for selecting TBS
  - NUREG-1903: Verify that risk associated with seismic-induced breaks greater than the TBS are acceptable

NUREG-1829: Executive Summary

- Elicitation used to estimate ***generic*** BWR and PWR passive-system LOCA frequencies associated with material degradation.
- Panelists provided quantitative estimates supported by qualitative rationale in individual elicitations for underlying technical issues.
  - Generally good agreement on qualitative LOCA contributing factors.
  - Large individual uncertainty and panel variability in quantitative estimates.
- Group results determined by aggregating individual panelists' estimates.
  - Uncertainty reflected in 5th and 95th percentiles about median estimates.
  - Confidence bounds used to quantify panel variability.
- **NUREG-1829 was published in April 2008.**

NUREG-1903: Executive Summary

- Reviewed prior PRA, seismic studies and earthquake experience
- Analyzed direct piping failure associated with rare seismic events (i.e., 10^{-5}/yr & 10^{-6}/yr) in piping systems with diameters larger than the TBS
- Analyzed large component support failures that may lead to piping failure (i.e., indirect piping failure) associated with rare seismic events
- Results
  - Unflawed piping: Failure frequency is much lower than 10^{-5}/yr
  - Flawed piping: Critical flaws for long, circumferential flaws ($\theta/\pi = 0.8$) are generally large
  - Indirect failures: Two cases analyzed have a mean piping failure probability of approximately 10^{-6}/yr
- **NUREG-1903 was published in February 2008**

NUREG-1829 Regulatory Guide: Commission Direction

- SRM-08 10 on SECY-07-0082
  - "The final rule should require licensees to justify that the generic results in the revised NUREG-1829, 'Estimating Loss-of-Coolant Accident Frequencies Through the Elicitation Process,' are applicable to their individual plants."
  - "The staff should develop regulatory guidance that will provide a method for establishing this justification."
- Staff has interpreted that this guidance extends to NUREG-1903, "Seismic Considerations For the Transition Break Size"

Plant-Specific Applicability of NUREG-1829 and NUREG-1903 Results

- Consider issues and implications associated with generic aspects of NUREGs
  - Assumptions
  - Approach
  - Analysis
- Guidance has been considered in several areas that may be affected by plant-specific factors
  - NUREG-1829 Applicability
    - Safety culture
    - *Continued operation*
    - *Changes in plant operation that may affect LOCA frequencies*
  - NUREG-1903 Applicability
    - *Risk associated with direct piping failures caused by seismic loading*
    - Risk associated with indirect piping failure caused by seismic loading

Applicability Guidance: Philosophy and General Framework

- Addresses breaks larger than the proposed TBS (i.e., primary loop piping and pressure boundary structural components)
- Use information submitted under other programs wherever possible (e.g., power uprates, license renewal, LBB submittals)
- Evaluation to address NUREG-1829 applicability
  - Intended to be largely qualitative
  - Consider plant-specific effects on variables that affect LOCA frequencies
  - Demonstrate adequacy of existing plant conditions/operation and insignificance of proposed plant changes
- Evaluation to address NUREG-1903 applicability
  - Provides options to maximize applicability of NUREG-1903 analysis
  - Provides detailed guidance and examples for conducting plant-specific analyses

Applicability Guidance: Status and Schedule

- 2009
  - Developed white paper for proposed reg. guide (ML090350757): Feb
  - Held public meeting to solicit feedback on white paper: Feb
  - Received stakeholder feedback: Apr
  - Provided information to support rulemaking FRN: Apr
  - Prepare draft regulatory guide: May – Jun
  - Brief ACRS on draft regulatory guidance: Jun – Jul, tentative
  - Publish draft guidance for public comment: Jul – Aug
  - End public comment period: Oct – Nov
  - Address public comments: Nov – Dec
- 2010
  - Brief ACRS on final regulatory guidance: Jan – Mar
  - Publish final guidance 6 months after final rule to Commission: Dec

GENERIC SAFETY ISSUE 163

MULTIPLE STEAM GENERATOR TUBE LEAKAGE

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MAY 7, 2009

EMMETT MURPHY, NRR/DCI

Summary

- NRR has completed its technical review of Generic Safety Issue (GSI) 163, “Multiple Steam Generator Tube Leakage.”
  - A draft closeout memo to the NRC EDO, with technical enclosure, has been prepared.
  - ACRS endorsement of GSI closeout is requested (per Management Directive 6.4)

Summary

- GSI 163 was opened in June 1992 in response to a differing professional opinion (DPO).
- GSI 163 addresses a principal assertion in the DPO that there is the potential for multiple SG tube leaks during a non-isolatable main steam line break (MSLB) outside containment, leading to core damage that could result from the loss of all primary system coolant and safety injection fluid in the refueling water storage tank (RWST).

Summary

- Although the GSI was opened in response to the DPO concerns, the GSI is not part of the DPO resolution process.
- The DPO concerns were reviewed by an ACRS Ad Hoc Subcommittee, which served as the DPO review panel.
- Subcommittee conclusions (February 1, 2001):
  - No immediate safety issue; monitoring and ARC can be adequate.
  - A number of follow up actions by the staff were recommended.
  - The Subcommittee conclusions were endorsed by the ACRS
- The Subcommittee recommendations were incorporated into the SG Action Plan (SGAP)
- SGAP resolved DPO (March 2001 EDO memorandum).

Summary

- Technical basis for GSI closure:
  - New performance-based technical specifications (TS) are in place at all pressured water reactors (PWRs) that:
    - ensure all tubes will exhibit acceptable structural margins against burst or rupture under normal operating and design basis accidents, including MSLB, and
    - ensure leakage from one or multiple tubes under design basis accidents will be limited to very small amounts, consistent with the applicable regulations for off-site and control room dose.
  - The staff has completed all SGAP tasks directly relevant to GSI 163.

Background – New TS Requirements

- Until 2005-2007, NRC surveillance requirements for ensuring steam generator (SG) tube integrity were prescriptive.
  - Inspection frequency: 12 to 40 calendar months
  - Tube inspection samples: 3 to 100%
  - Plug all tubes with $\geq$ 40% deep flaws
- Not directly focused on ensuring all tubes will maintain integrity until next scheduled inspection.

Background – New TS Requirements

- This shortcoming often necessitated actions beyond minimum TS requirements to ensure tube integrity was being maintained.
  - Initially, ad-hoc
- NRC and the industry began initiatives to improve the consistency and effectiveness of utility programs.
  - EPRI guideline documents
  - Draft NRC Regulatory Guide DG-1074
  - Nuclear Energy Institute (NEI) 97-06 guidelines

Background – New TS Requirements

- In May 2005, the NRC staff approved a generic template for new technical specification requirements for ensuring SG tube integrity.
- As of Sept. 30, 2007, the new TS are in place for all US PWRs.

Overview – New Requirements

- Incorporate performance based framework
  - Places regulatory focus on the bottom line, i.e., ensuring SG tube integrity, rather than on specific steps to accomplish this objective.
  - Adaptable to
    - New or unexpected problems
    - New inspection technology
  - Provides flexibility to implement cost effective strategies for managing the SG tubing while ensuring tube integrity will be maintained.

New LCO Requirement

- LCO – Limiting Condition for Operation in plant technical specifications.
- New LCO – SG Tube Integrity shall be maintained.
  - Ties SG Operability directly to maintaining tube integrity.
  - Surveillance requirement – Verify SG tube integrity in accordance with SG Program.

SG Program

- An SG Program shall be established and implemented to ensure SG tube integrity is maintained. In addition, the SG Program shall include:
  - Tube Integrity performance criteria
  - Provisions for condition monitoring
  - Tube repair criteria
  - Provisions SG tube inspections
  - Provisions for monitoring operational primary to secondary leakage

SG Program

- Performance criteria for tube integrity
  - Structural criteria
  - Accident leakage criteria
  - Operational leakage criteria
- Attributes – Performance criteria
  - Measurable, tolerable
  - Consistency with current design and licensing basis

Structural Integrity Performance Criteria

- Safety factor (SF) of 3 against burst under normal operating pressure differential.
- SF of 1.4 under accident pressure differentials.
- SF of 1.2 under combined pressure and non-pressure accident loads (loads producing primary stress).

Accident Induced Leakage Performance Criteria

- Accident leakage shall not exceed values assumed in the licensing basis accident analyses.
  - To ensure acceptable dose consequences.
- Accident leakage shall not exceed 1 gallon per minute.
  - To limit risk under severe accident conditions.

Operational Leakage Performance Criteria

- As specified in the LCO specification for primary to secondary leakage.

Condition Monitoring

- The as-found condition of tubing shall be evaluated during each outage tubes are inspected, repaired, or plugged to confirm the performance criteria are met.
- If one or more of the performance criteria not met, this is reportable in accordance with 10 CFR 50.72/73.
  - NUREG-1022, Rev (with errata)
  - NRC Oversight Program

SG Tube Inspections

- Inspection scope, methods, and frequency shall be such as to ensure that SG tube integrity is maintained until the next scheduled inspection.
- Inspection scope and methods shall be performed with the objective of detecting flaws of any type that may exist and that may exceed the applicable repair criteria.
- Degradation assessment provides the basis for determining needed inspection methods.

SG Tube Inspections

- Inspect 100% of tubes at first refueling outage.
- For Alloy 600 MA tubing, No SG shall operate for more than 24 EFPM or one fuel cycle (whichever is less) without being inspected.
- For Alloy 600 TT tubing, no SG shall operate for more that 48 EFPM or two refueling outages without being inspected.
- For Alloy 690 TT tubing, no SG shall operate for more that 72 EFPM or three refueling outages without being inspected.

SG Tube Inspections

- If crack(s) found in Alloy 600 TT or 690 TT tubing, the next inspection shall not exceed 24 EFPM or one refueling outage.

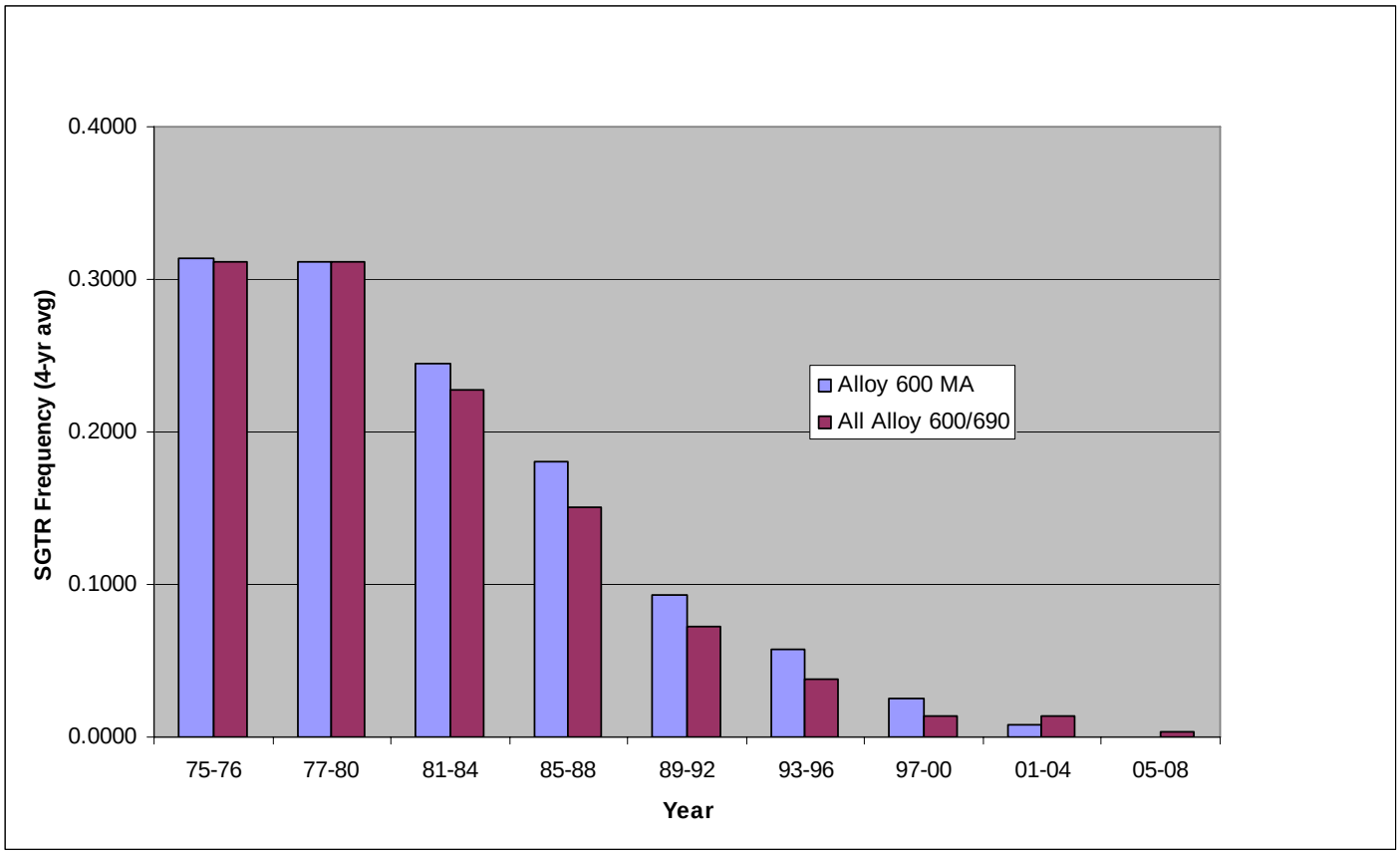
SG Tube Repair Criteria

- Tubes with flaws found by inspection to exceed 40% of the nominal tube wall thickness shall be plugged.
- [Currently approved ARCs (e.g., voltage-based ARC)]

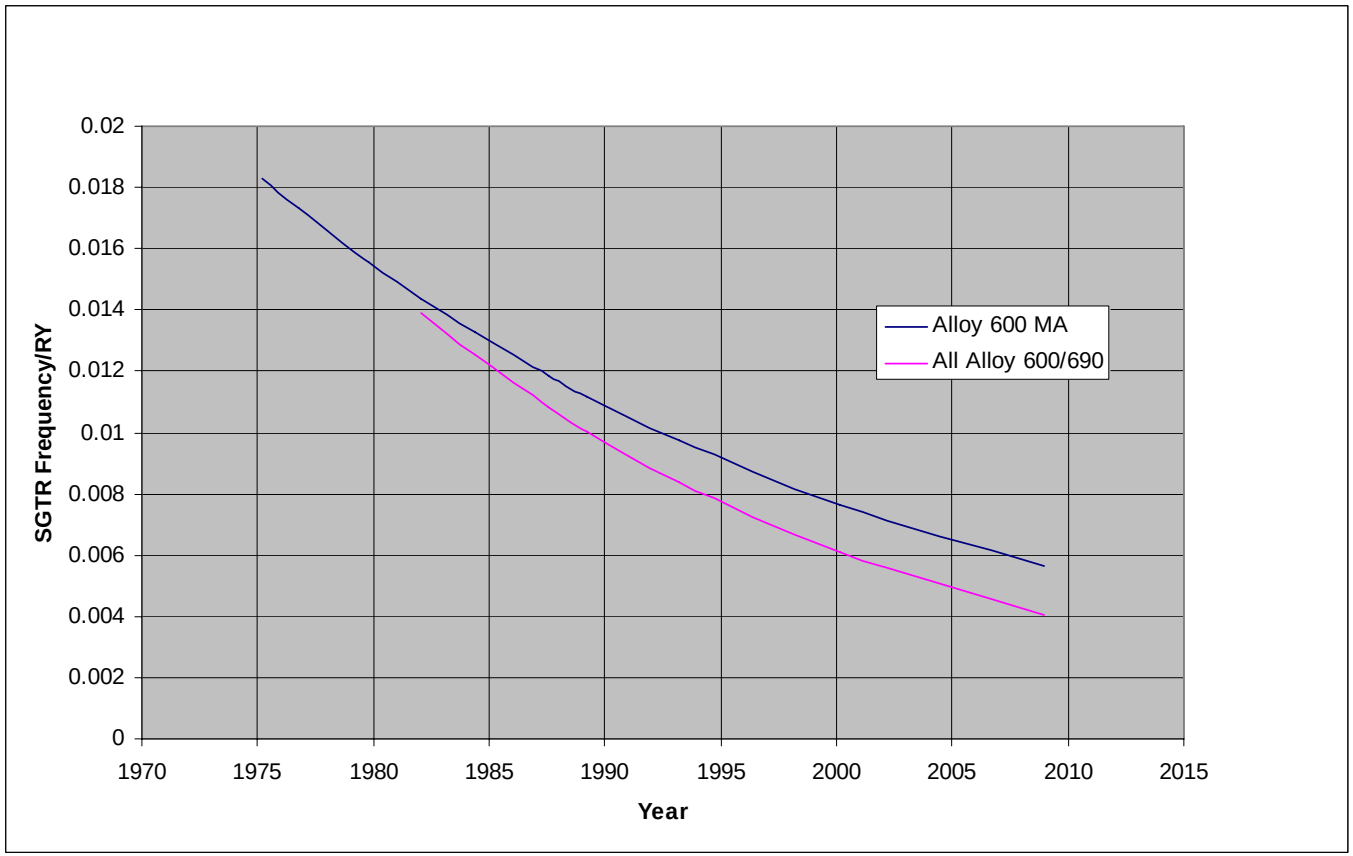
Effectiveness - New TS

- Operating experience (OE) indicates improving trend in tube integrity performance.
  - Improved water chemistry practices
  - Improved design and materials
  - Improved tube integrity management
    - Improved inspection technology and practice
    - Improved focus on maintaining tube integrity
- OE trends for alloy 600 MA underscore the contribution of improved tube integrity management to improved tube integrity performance.

Force Outage Frequency/SG Leakage



SGTR Frequency



Effectiveness - New TS

- Since 2000, there have only been three known instances where one tube was found not to meet the structural and accident induced performance criteria.
  - Thus, the conditional probability of rupture or of induced leakage in excess of leakage rates assumed in the licensing basis safety analyses under MSLB conditions appears to be small relative to values assumed in NRC risk studies (NUREG-0844, -1570).

SGAP Interfaces

- A number of tasks were incorporated into the SGAP to address the ACRS Ad Hoc Subcommittee recommendations and related topics.
- In the GSI 163 closeout report, the staff addressed those SGAP tasks relevant to the objective of the GSI.
  - i.e., those tasks relevant to assessing the adequacy of NRC requirements for ensuring SG tube integrity under design basis conditions, including MSLB, including:
    - Damage progression issues
    - Voltage-based ARCs
    - Eddy current probability of detection
    - Iodine spiking issues

SGAP Interfaces

- Based on the results of these tasks, no changes to existing requirements needed to ensure tube integrity under design basis conditions.
  - Results support closeout of GSI 163.

Conclusions

- Operating experience shows that effective management of SG tube integrity can be achieved through a performance-based strategy focused on satisfying tube integrity performance criteria.
- The new TS requirements relating to SG tube integrity provide reasonable assurance:
  - That all tubes will exhibit acceptable structural margins against burst or rupture during normal operation and DBAs, including MSLB.
  - That leakage from one or multiple tubes under DBAs will be limited to very small amounts, consistent with the applicable regulations for offsite and control room dose.
- NRR concludes GSI 163 is closed.
- ACRS endorsement is requested

U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

Regulatory Guide 1.214 "Response Procedures for Potential or Actual Aircraft Attacks"

Advisory Committee for Reactor Safeguards
May 7, 2009

Introduction

- Since 9/11/01:
  - Changes to threat environment
  - Reevaluated adequate protection requirements
  - Aircraft beyond DBT but mitigative measures required
- NRC published a major rule for Power Reactor Security Requirements on March 27, 2009
- Includes requirements for 10 CFR 50.54(hh)(1), which is based on the 2002 ICM Order, paragraph B.5.a

Intent of the Rule

- Licensees take appropriate actions to place their facilities in the best condition to mitigate the consequences of possible aircraft impact
- 10 CFR 50.54, “Conditions of Licenses”
- Focuses on “pre-event notification period”
- RG 1.214 provides acceptable methodologies for licensees to establish, implement, maintain, procedures and train personnel accordingly

RG 1.214

- Provide methodologies for site-specific considerations to plan, prepare, and respond following a potential or actual aircraft threat notification
  - Verify notifications
  - Continuous communications
  - Contact personnel
  - Mitigate consequences
  - Visual discrimination
  - Disperse equipment
  - Recall personnel

Reg Guide Development

- Numerous site “walk-throughs”
- Stakeholder Input
- NRR, NRO, OGC and NSIR staff review

Event Communications

- Two Watch Standers at NRC Headquarters at all times
- Headquarters Emergency Response Officer
  - Monitors conference call from Department of Defense (NORAD)
  - Monitors Federal Aviation Administration Domestic Events Network
  - Passes Track of Interest (air traffic control data) information to Headquarters Operations Officer

Event Communications (cont'd)

- Headquarters Operations Officer
  - Conference Call
    - Licensee
    - NRC Senior Manager
  - Passes Track of Interest information to licensee
- Notify NRC and Other Federal Agencies (as time permits)
  - Similar to other Headquarters Operations Officer or Incident Response Procedures
  - Examples
    - Office Directors and Regional Administrators
    - Department of Homeland Security National Operations Center
    - Department of Homeland Security National Infrastructure Coordination Center

Summary

AP1000 DCD/R-COLA Integration, Development, and Standardization

AP1000 Design-Centered Work Group
Presentation to ACRS
May 7, 2009

Peter Hastings, NuStart — ***AP1000 DCWG Lead***
Rob Sisk, Westinghouse — ***Manager, AP1000 Licensing & Customer Interface***
Eddie Grant, NuStart — ***AP1000 R-COLA Licensing***

NuStart Energy sm

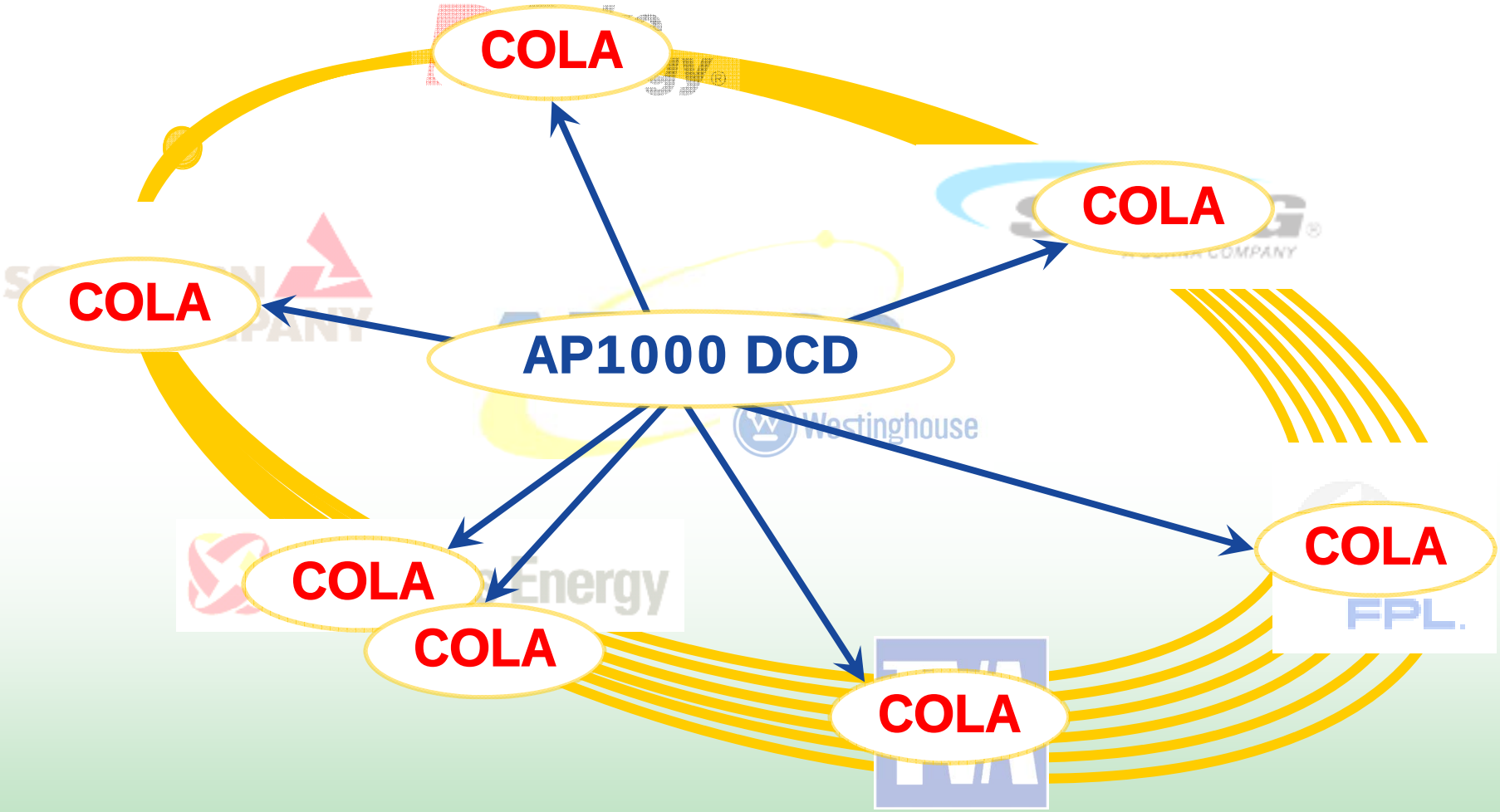
AP1000 DCWG

Bellefonte 3&4 Lee Nuclear 1&2 Summer 2&3 Vogtle 3&4 Harris 2&3 Levy 1&2 Turkey Point 6&7

AP1000 Design Center

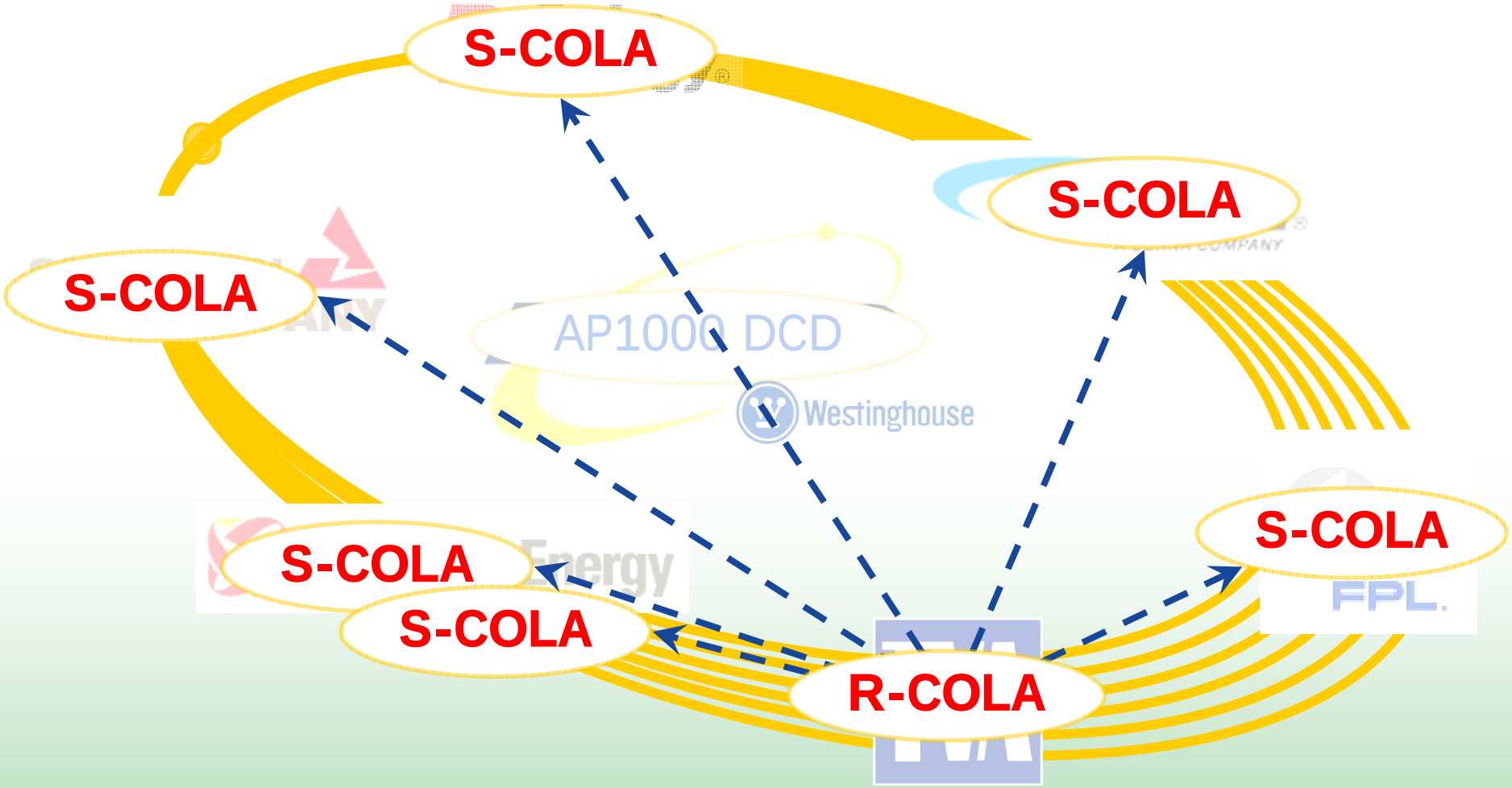
- **High level of standardization**
- **Design with significant finality**
- **Integration of DCD and COL applications through incorporation by reference**
- **Explicit identification of standard and site-specific information**
- **Status**
  - Design Certification amendment request under review
  - Six COL applications under review (each for two units), additional application expected in June
  - COL applications reference AP1000, as being amended
  - Reference/Subsequent COLA (R-COLA/S-COLA) approach being used for standard content

Use of Standard Content



Bellefonte 3&4 Lee Nuclear 1&2 Summer 2&3 Vogtle 3&4 Harris 2&3 Levy 1&2 Turkey Point 6&7

Use of Standard Content (cont'd)



Bellefonte 3&4 Lee Nuclear 1&2 Summer 2&3 Vogtle 3&4 Harris 2&3 Levy 1&2 Turkey Point 6&7

R-COLA Transition

- **Change in dockets to facilitate resource alignment**
- **No change in DCWG structure**
- **SER with Open Items issued on Bellefonte**
- **STD Open Items to be closed on Vogtle**
- **Handling site-specific issues**
  - Bellefonte site-specific issues addressed in Bellefonte SER with Open Items
  - ACRS review and closure on Bellefonte (as with any other S-COLA)
  - Early Site Permit addressed majority of significant site-specific issues for Vogtle
- **Timing of transition closely coordinated with NRC Staff**

Overview of the AP1000 Certified Design Amendment

- AP1000 Design (Rev 15) was certified on January 27, 2006
  - 10CFR52 Appendix D – AP1000 Design (certified)
  - Preceded by 10CFR52 Appendix C – AP600 Design (certified) and 10CFR52 Appendix B – System 80+ Design (certified)
- An Amendment to the certified design was submitted May 26, 2007
  - Augmented in Sept 22, 2008
  - Consistent with 10CFR52.63 requirements
- Purpose of the Amendment:
  - Address COL Information items
  - Address Design Acceptance Criteria
  - Address NRC requirements
  - Enhance Standardization
  - Design Maturity
  - Incorporate Design Improvements

Amendment Overview

- AP1000 amendment builds on the certified design
  - Much of certified design as documented in the DCD remains unchanged
- Key review issues:
  - Address developing security requirements
  - DAC (I&C, HFE, Piping)
  - Containment sump and downstream effects
  - Structural design and seismic analyses
  - Control room ventilation
  - Enhanced Integrated Head Package
  - ASTRUM
  - Addressed non-plant-specific Technical Specification
- Conclusions of the AP1000 safety analysis remain unchanged

First AP1000 Plants Being Constructed in China

Contracts signed for first four units:

- Two units at Sanmen
- Two units at Haiyang

Contracts signed in July 2007

First unit (Sanmen 1):

Groundbreaking in Feb 2008

First concrete in March 2009

Fuel loading in May 2013

Operational in November 2013

Haiyang schedule 6 months behind Sanmen

AP1000 Projects in the United States

EPC contracts in place for 6 units:

Operational:

Southern Co.

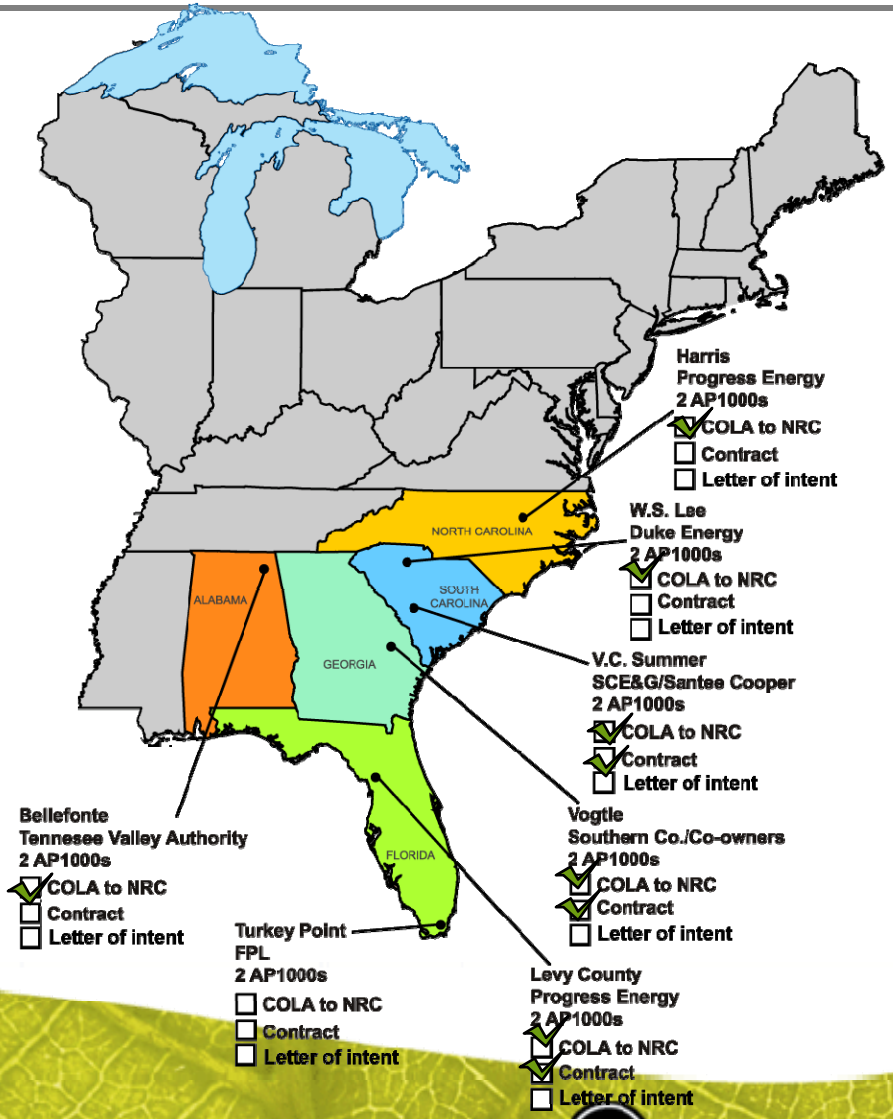
Vogtle 3, 4 2016, 2017

SCE&G

VC Summer 2, 3 2016, 2019

Progress Energy

Levy County 1, 2 2018-2020*



Closing Remarks

- Westinghouse is working to address the NRC's concerns on a schedule to support the ACRS meetings:
  - July 23 &24
  - Oct 6 & 7
  - November 19 & 20
- AP1000 Design was certified on January 27, 2006.
  - Built on the Review and Approval of AP600
  - The amendment process incorporated two revisions (Rev 16 & 17)
  - A conforming revision (Rev 18) is anticipated to support rulemaking
- Focus is on reviewing changes to the certified design
  - Recognizing Design Finality applies (10CFR52.63)
- Westinghouse is ready to present the AP1000 amended design to the ACRS!

Combined License (COL) Application

- Cover Letter, Affidavits, etc. ("Part 0")
- Part 1 – General & Administrative Information
- Part 2 – Final Safety Analysis Report
- Part 3 – Environmental Report
- Part 4 – Plant Specific Technical Specifications
- Part 5 – Emergency Planning Information
- Part 6 – Limited Work Authorization Information
- Part 7 – Departures & Exemption Requests
- Part 8 – Safeguards Information
- Part 9 – Other Withheld Information
- Part 10 – Proposed License Conditions, including ITAAC
- Part 11 – Other Documents (e.g., QAPD)

DCD / R-COLA Integration in Part 2

- **Incorporation by Reference (IBR):** majority of DCD IBR'd into COLA (and not repeated)
- **S-COLAs includes standard content reflected in R-COLA**
- **FSAR content labeled explicitly with Left Margin Annotations (LMAs) as STD or site-specific (BLN):**
  - COL Information Items:
    - STD COL #.#-# or BLN COL #.#-#
  - Departures from DCD:
    - STD DEP #.#-# or BLN DEP #.#-#
  - Supplemental Information:
    - STD SUP #.#-# or BLN SUP #.#-#

Left Margin Annotations (FSAR)

MARGIN NOTATION	DEFINITION AND USE
STD DEP X.Y.Z-#	FSAR information that **departs from the generic DCD** and is common for parallel applicants. Each Standard Departure is numbered separately at an appropriate level.
NPP DEP X.Y.Z-#	FSAR information that **departs from the generic DCD** and is plant specific. NPP is replaced with a plant specific identifier.
STD COL X.Y-#	FSAR information that addresses a DCD **Combined License Information item** and is common to other COL applicants. Each COL item is numbered as identified in DCD Table 1.8-2.
NPP COL X.Y-#	FSAR information that addresses a DCD **Combined License Information item** and is plant specific. NPP is replaced with a plant specific identifier.
STD SUP X.Y-#	FSAR information that **supplements** the material in the DCD and is common to other COL applicants. Each SUP item is numbered separately at an appropriate subsection level.
NPP SUP X.Y-#	FSAR information that **supplements** the material in the DCD and is plant specific. NPP is replaced with a plant specific identifier. Each SUP item is numbered separately at an appropriate subsection level.
NPP CDI or **STD CDI**	FSAR information that addresses **DCD Conceptual Design Information (CDI)**. Replacement design information is generally plant specific; however, some may be common to other applicants. NPP is replaced with a plant specific identifier. STD is used if it is common. CDI information replacements are not numbered.
DCD	FSAR information that **duplicates material in the DCD**. Such information from the DCD is repeated in the FSAR only in instances determined necessary to provide contextual clarity.

DCD / R-COLA Integration (other Parts)

- **Part 4 – Plant Specific Technical Specifications**
  - Generic TS repeated to provide full, clean copy
  - Plant specific information included

- **Part 7 – Departures and Exemptions**
  - Tier 1 and GTS departures require exemptions
  - Tier 2* departures require NRC approval
  - Tier 2 departures require evaluation ~ 50.59
    - Some require NRC approval

DCD / R-COLA Integration (other Parts)

- **Part 10 – Proposed License Conditions**
  - ITAAC (IBR of DCD Tier 1 ITAAC)
    - Adds Security, Plant Specific, Emergency Planning
  - Holder items
    - COL Info Items that can't be completed prior to COL issuance (e.g., as-built or startup testing)
  - Program implementation milestones
  - Program readiness (for inspections)
  - Other items typical for Operating Licenses
    - Security program revision process
    - Startup testing change reporting
    - Environmental Protection Plan (Nonradiological)

FSAR Standardization examples

Sect.	IBR	STD	PS
1.1	IBR	X	X
1.2	IBR		X
1.3	IBR		
1.4	IBR		X
1.5	IBR		
1.6	IBR	X	
1.7	IBR		X
1.8	IBR	X	X
1.9	IBR	X	X
1.10	(New)	X	X
1A	IBR	X	

Chapter	% STD	Chapter	% STD
1	75	11	40
2	0	12	70
3	80	13	30
4	100	14	90
5	100	15	75
6	80	16	75
7	80	17	60
8	75	18	90
9	60	19	100
10	50	FSAR	20/70

R-COLA Standard Material Summary

- **DCD Incorporated by Reference**
  - Part 2 – FSAR
  - Part 10 – Proposed License Conditions
- **Part 4 – Technical Specifications**
- **Many Program Descriptions in FSAR**
  - NEI Templates (examples)
    - RP, Training, ALARA, Maintenance, PCP, ODCM
  - Others such as ISI, IST, CLRT
  - Procedural information
- **Many COL Information Item closures**
- **Much of the Supplemental material**
- **Standard methods used**
  - Examples - PSHA, Cost-benefit analyses

Overview of the AP1000 Design Center Reviews Presentation to the ACRS

Eileen McKenna

Stephanie Coffin

May 7, 2009

Briefing Purpose and Agenda

- Orientation for future Committee review activities for AP1000 design certification amendment (DCA) and reference combined license (RCOL) application

AP1000 Design Certification Amendment

- Current AP1000 Design Certification - Appendix D to 10 CFR Part 52 (Revision 15 to the AP1000 Design Control Document (DCD)) – effective 2006
- Safety Evaluation Report – NUREG-1793, “Final Safety Evaluation Report Related to Certification of the AP1000 Design”
- Post-certification Activities
  - NuStart Submittal of over 100 Technical Reports (TRs) beginning in 2006
  - Staff Review of TRs – which address aspects of AP1000 Design and COL information items (in support of specific DCD changes)

Application for Design Certification Amendment

- Application of May 26, 2007 based upon Revision 16 to the AP1000 DCD
- Reference to 10 CFR Part 52, Section 52.63 – Finality of Standard Design Certifications
- Submittal of Revision 17 of the AP1000 DCD – September 22, 2008
- RAI responses leading to DCD changes

Review of the AP1000 DCA

- Six phase review schedule
- Review is focused on changes proposed by Westinghouse, using SRP-based review
- Issuance of Individual Chapters in Phase 2 (SER with Open Items [SER/OIs]) to become a supplement to NUREG-1793
- Presentation of chapters at ACRS meetings paired with same chapter from RCOL application
- SC Meetings in July, October, November (and early 2010 if needed)

Current DCA Review Schedule

- April 3, 2009 NRC Schedule Letter
- Last chapter of SER/OIs - 01/2010
- Completed Final SER – 12/2010
- Rulemaking – 08/2011

Key Review Issues - DCA

- Structural design and other seismic analyses
- Containment Sump changes
- Control Room Ventilation System revision
- Progress on DAC matters (I&C, human factors, piping)
- Several other changes to maximize standardization

Review of the RCOL Application

- Six phase review schedule
- Review is focused on resolution of COL Items from DCA, operational programs, site-specific aspects
- Issuance of Individual Chapters in Phase 2 (SER with Open Items [SER/OIs]), following DCA chapters
- Presentation of chapters at ACRS meetings paired with same chapter from DCA application
- SC Meetings in July, October, November (and early 2010 if needed)

Key Review Issues - RCOL

- Demonstration that AP1000 design is suitable for the site
- Evaluation of site safety issues, such as:
  - Meteorology, hydrology, seismology, geology, etc.
  - Emergency plans
- Evaluation of operational programs, such as:
  - ISI and IST programs
  - Quality assurance program
  - Radiation protection program
- Evaluation of COL Item resolution, such as:
  - Containment cleanliness program
  - Initial test program
  - Conceptual design information (e.g., cooling towers, raw water system)

Structure of SE/OI for RCOL

- Incorporate by reference sections
  - Staff makes finding that IBR is appropriate
  - Refers to NUREG supplement
- Standard COL content
  - Staff evaluation of RCOL application will apply to all SCOL applications, as appropriate
- Site-specific COL content
  - Staff evaluation of RCOL application applies only to TVA/Bellefonte

RCOL Applicant Transition

- Entire SE/OI issued based on the TVA/Bellefonte application
- Southern/Vogtle responds to all OIs related to standard content
- Southern/Vogtle responds to all outstanding site-specific issues
- NRC staff evaluates responses and develops Advanced Final SER with no OIs based on Southern Nuclear application. This is expected to be first AP1000 COL application to come to ACRS for final determination.

Current RCOL Review Schedule

- Schedule dates being updated
- Phase 2 – chapters on Bellefonte COL issued in alignment with chapters on Westinghouse DCA
- Phase 3 – same meetings as for DCA on Bellefonte (integrated presentation)
- Phases 4, 5, 6
  - Completion of review of Vogtle COL application (standard and Vogtle site-specific content)
  - Bellefonte application review (for site-specific content) will be completed after Vogtle

Preview of July 2009 ACRS SC Meeting

- DCA and RCOL application and evaluation presented in an integrated manner
- DCA and COL applicants and NRC staff presentations
- Focus of staff presentations will be on key review areas and open items
- Chapters to be presented will be issued at least 30 days prior to meeting
- ACRS feedback on areas of interest prior to meeting day appreciated
- ACRS “interim” letters for each SC meeting appreciated