



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

May 9, 2005

MEMORANDUM TO: ACRS Members

FROM: Cayetano Santos Jr., Senior Staff Engineer */RA/*
ACRS/ACNW

SUBJECT: CERTIFICATION OF THE MINUTES OF THE PLANT LICENSE
RENEWAL SUBCOMMITTEE MEETING ON MILLSTONE, UNITS 2 AND
3, APRIL 6, 2005 - ROCKVILLE, MARYLAND

The minutes of the subject meeting were certified on May 6, 2005, as the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachment: As stated

cc: J. Larkins
A. Thadani
M. Scott
M. Snodderly
S. Duraiswamy



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WASHINGTON, DC 20555 - 0001

MEMORANDUM TO: Cayetano Santos Jr., Senior Staff Engineer
Technical Support Staff
ACRS/ACNW

FROM: John Sieber, Chairman
ACRS Plant License Renewal Subcommittee

SUBJECT: CERTIFICATION OF THE MINUTES OF THE ACRS SUBCOMMITTEE
MEETING ON THE MILLSTONE UNITS 2 AND 3 LICENSE RENEWAL
APPLICATIONS, APRIL 6, 2005 - ROCKVILLE, MARYLAND

I hereby certify, to the best of my knowledge and belief, that the minutes of the subject meeting on April 6, 2005, are an accurate record of the proceedings for that meeting.

/RA/ 5/6/05
John Sieber, Date
Plant License Renewal Subcommittee Chairman

CERTIFIED
on 05/6/2005
by John Sieber
Issued 4/26/05

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MINUTES OF THE ACRS PLANT LICENSE RENEWAL SUBCOMMITTEE MEETING
ON THE MILLSTONE POWER STATION, UNITS 2 AND 3
April 6, 2005
ROCKVILLE, MARYLAND

On April 6, 2005, the Plant License Renewal Subcommittee held a meeting in Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to review and discuss the Millstone, Units 2 and 3 license renewal applications and the associated Safety Evaluation Report (SER) with Open Items.

The meeting was open to the public. A representative of the Connecticut Coalition Against Millstone requested time to make an oral statement at this meeting. Mr. Cayetano Santos was the Designated Federal Official for this meeting. The meeting convened at 1:30 pm and adjourned at 5:00 pm.

ATTENDEES:

ACRS MEMBERS/STAFF

John Sieber, Chairman
William Shack, Member
John Barton, Consultant

Stephen Rosen, Member
Graham Wallis, Member
Cayetano Santos Jr., ACRS Staff

NRC STAFF/PRESENTERS

J. Eads, NRR
M. Modes, Region I
Y. Diaz, NRR
T. Ford, NRR
K. Hsu, NRR
D. Ashley, NRR
J. Fair, NRR
S. Lee, NRR
J. Ma, NRR
T. Liu, NRR
K. Chang, NRR
J. Rowley, NRR
R. Auluck, NRR
R. Pettis, NRR
B. Elliott, NRR
Y. Diaz, NRR
J. Zimmerman, NRR
R. Emch, NRR
H. Ashar, NRR
G. Morris, NRR

P. Kuo, NRR
R. Subbaratnam, NRR
T. Le, NRR
A. Hull, NRR
M. Morgan, NRR
S. Hoffman, NRR
N. Trehan, NRR
D. Shum, NRR
K. Corp, NRR
K. Cozens, NRR
S. Mitra, NRR
A. Keim, NRR
Y. Li, NRR
D. Nguyen, NRR
R. McNally, NRR
J. Ayala, NRR
D. Merzke, NRR
A. Kugler, NRR
J. Rajan, NRR
M. Lintz, NRR

OTHER ATTENDEES

G. Komosky, DNC
D. Duncan, DNC

T. Hendy, DNC
D. Wooten, DNC

B. Corbin, Dominion
C. Sorrell, Dominion
P. Aitken, Dominion
M. Ortmayer, NMC
R. Wells, DNC
T. Mielke, NMC
D. Ava, TVA
R. Jansen, TVA
R. Grumbir, AEP
C. Willbanks, ATL International
S. Pope, ISL
A. Raptis, ANL
F. Quinn, Public
C. Myer, Southern Nuclear
M. Hotchkiss, Dominion

B. Rodill, Dominion
W. Watson, DNC
S. Schellin, NMC
D. Gerber, Structural Integrity Associates
J. Thorgersen, NMC
K. Brune, TVA
R. Jennings, TVA
R. Graves, Legin
M. Fallin, Constellation Energy
G. Young, Entergy Nuclear
J. Woodfield, ISL
C. Marks, ISL
F. Saba, ISL
M. Macfarlane, Southern Nuclear
N. Burton, CT Coalition Against Millstone

The presentation slides, handouts used during the meeting, and a complete list of attendees are attached to the Office Copy of the meeting minutes. The presentations to the Subcommittee are summarized below.

Opening Remarks

Mr. Sieber, Chairman of the Plant License Renewal Subcommittee, convened the meeting and made some introductory remarks. The purpose of the meeting is to conduct an interim review the Dominion Nuclear Connecticut (Dominion) license renewal applications (LRAs) for Millstone, Units 2 and 3 and the associated Safety Evaluation Report (SER) with Open Items. Current operating issues and the associated environmental impact statement ,will not be reviewed at this meeting. The Millstone Power Station consists of three units built by different manufacturers over a period of 16 years. Unit 1 is a Mark 1 boiling water reactor that was shutdown in the late 1990s. Units 2 and 3 are pressurized water reactors (PWRs) built by Combustion Engineering and Westinghouse, respectively. Mr. Sieber requested that the applicant and staff identify those Unit 1 systems and components that must remain operable because they are shared among all three units.

Staff Introduction

Mr. Kuo introduced several members of the staff including Mr. Eads (Project Manager), Mr. Modes (Inspection Team Leader), and Mr. Chang (Audit Team Leader).

Millstone License Renewal Applications

Mr. Watson, Dominion, greeted the Subcommittee and introduced accompanying members of the Dominion staff. Mr. Watson's presentation described Millstone's operating experience, plant improvements, aging management programs (AMPs), and commitment tracking process.

Background

On January 22, 2004, Dominion submitted two applications to the NRC for renewal of the Millstone, Units 2 and 3 operating licenses for an additional 20 years. The current licenses for Units 2 and 3 expire on July 31, 2015, and November 25, 2025, respectively. The NRC granted Millstone Unit 3 an exception from 10 CFR 54.17(c) which requires that an application not be submitted earlier than 20 years before the expiration of the current operating license. The LRAs used the standard format and made extensive use of past precedence. Millstone was the fourth plant to be reviewed by the staff using on-site audits to evaluate consistency with the Generic Aging Lessons Learned (GALL) Report.

Plant Description

Millstone Unit 2 is a Combustion Engineering PWR with two recirculating steam generators, two hot legs, four cold legs, and four reactor coolant pumps (RCPs). Initial operations began in July 1975. The operating parameters for Unit 2 include a power output of 2700 MWt (895 MWe), an inlet temperature of 549 EF, an outlet temperature of 601 EF, and a steam flow of 11.8×10^6 lbm/h.

Millstone Unit 3 is a Westinghouse PWR with four recirculating steam generators, four coolant loops, and four RCPs. Initial operations began in November 1985. The operating parameters for Unit 3 include a power output of 3411 MWt (1195 MWe), an inlet temperature of 557 EF, an outlet temperature of 617 EF, and a steam flow of 15×10^6 lbm/h.

Mr. Watson described the similarities and differences between Unit 2 and 3. Both units have similar operating conditions, environments, and materials of construction. The site programs and operating experience review process are also common to both units. The containments for Units 2 and 3 are different. The Unit 2 containment design includes a post-tensioning system of tendons. The containment for Unit 3 is subatmospheric with a subfoundation constructed of porous concrete to direct groundwater seepage to a dewatering system.

Recent Operating Experience and Plant Improvements

Millstone Unit 2 has been operating for 386 days since the last automatic reactor trip. The lower portions of both steam generators in Unit 2 have been replaced. The Unit 2 reactor vessel head and pressurizer are scheduled to be replaced.

Millstone Unit 3 has been operating for 333 days since the last refueling outage. The reactor vessel head for Unit 3 is not scheduled for replacement because of its low susceptibility to degradation and a bare metal visual inspection in 2002 did not identify any evidence of material degradation or leakage. In 2004 the Unit 3 lower head penetrations were visually inspected with no evidence of material degradation or leakage.

Millstone Unit 1 was shutdown in 1995 and permanently defueled. The Unit 1 structures, systems, and components (SSCs) were evaluated for their effects on the other units. As a result, the Unit 1 turbine building and control room/radwaste treatment building were included in scope of license renewal. When Unit 1 was defueled, portions of its fire protection equipment were reassigned to Unit 3 and has been included in scope.

Aging Management Programs

There are 28 AMPs used to manage degradation at Millstone. 27 of these AMPs are common to both units. The Boraflex Monitoring program is unique to Unit 2. Of the 28 AMPs, 14 are existing programs, 12 are enhanced programs, and two are new programs. The two new AMPs are the Electrical Cables not Subject to 10 CFR 50.49 Environmental Qualification (EQ) Requirements Program and the Infrequently Accessed Areas Inspection Program.

Commitment Tracking

Each unit has 37 commitments associated with license renewal. These commitments will be loaded into the plant's commitment management system following issuance of the final SER. These commitments will be implemented prior to entering the period of extended operation.

Safety Evaluation Report Overview

Mr. Eads led the staff's presentation of the SER with Open Items, the scoping and screening review, the AMP reviews and audits, and the time-limited aging analyses (TLAAs).

The SER with Open Items was issued on February 24, 2005, containing six open items, six confirmatory items, and three proposed license conditions. As a result of the staff's review, additional systems were brought into the scope of license renewal and an AMP was added. Mr. Eads listed the dates of the audits and inspections performed by the staff.

Scoping and Screening

Open Item 2.1.3-1 deals with the two issues associated with the scoping of non-safety related components pursuant to 10 CFR 54.4(a)(2). The first issue is the definition of an equivalent anchor used to evaluate non-safety related piping attached to safety-related piping. The second issue is the criteria used to evaluate the effects of non-safety related, low-energy, fluid containing components on safety-related components. As a result of these issues raised by the staff, the following Unit 2 systems were brought into scope: (1) aerated liquid radwaste (2) solid waste processing, (3) turbine building closed cooling water, (4) water box priming, (5) auxiliary steam reboiler and deaerating feedwater, (6) exciter air cooler, (7) stator liquid cooler, and (8) turbine lube oil. Additional components from both units were also brought into scope.

The staff's review of the scoping and screening results for mechanical systems resulted in Open Item 3.1.2-6. This open item deals with the scoping of the reactor vessel flange leak detection line.

Mr. Eads concluded this section by stating that the scoping and screening results included all SSCs within the scope of license renewal and subject to an aging management review (AMR).

Onsite Inspection Results

M. Modes, Region I, described the license renewal inspections performed by the staff. The license renewal inspections follow Manual Chapter MC 2516 and Inspection Procedure IP 71002. The inspection team consisted of a team leader and four members in various technical disciplines.

The objective of the scoping and screening inspection is to confirm that the applicant has included all SSCs within the scope of license renewal as required by the rule. This inspection concluded that the scoping and screening activities successfully identified those structures and components requiring an AMR.

The objective of the AMP inspection is to confirm that existing AMPs are managing current age-related degradation. The inspection concluded that the material condition of the plant was being adequately maintained and the proposed aging management procedures conformed to the methods described in the applications.

Mr. Modes described the recent performance of Millstone. The fourth quarter 2004 performance indicators and inspection findings for Units 2 and 3 are all green.

Aging Management Program Review and Audits

Mr. Eads stated that the audit team reviewed approximately 90% of the applicant's AMPs and AMRs. Of the 28 AMPs at Millstone, six are consistent with the GALL Report, 18 are consistent with the GALL Report with exceptions and/or enhancements, and four are plant-specific.

Mr. Chang, NRR, described some of the AMPs reviewed during the audit such as the Buried Pipe Inspection Program, the Non EQ Inaccessible Medium Voltage Cables Program, the Bolting Integrity Program, the Fire Protection Program, and the Metal Fatigue of Reactor Coolant Pressure Boundary Program.

The Buried Pipe Inspection Program is consistent with the GALL Report with exceptions and enhancements. The two exceptions are that cathodic protection is not trended with time and

the preventive measures applied during initial installation could not be verified as consistent with the appropriate standard. The staff's basis for accepting these exceptions are that baseline and opportunistic inspections will be performed.

The Non EQ Inaccessible Medium Voltage Cables Program is consistent with the GALL Report with exceptions and enhancements. The exception in this program is the use of an engineering evaluation to address the conditions of cables. The staff accepted this exception because cables will be tested to demonstrate that water treeing will not prevent them from performing their intended function.

Originally the Inservice Inspection (ISI) program was credited with managing age-related degradation of bolting. However, no program was credited with managing crack initiation and growth due to stress corrosion cracking (SCC) and cyclic loading for bolts outside the reactor coolant system. The Bolting Integrity Program was developed to address these issues (Open Items 3.0.3.2.18-1 and -2).

The Fire Protection Program is consistent with the GALL Report with exceptions and enhancements. The exception is that for halon and carbon dioxide systems there are no aging effects requiring management. The program enhancements are baseline visual inspections of buried fire protection components and testing of a representative sample of sprinkler heads.

The Metal Fatigue of Reactor Coolant Pressure Boundary Program is consistent with the GALL Report. The six fatigue sensitive locations identified in NUREG/CR-6260 are all being monitored. For Unit 2 all of these locations have a cumulative usage factor (CUF) less than one. For Unit 3, four of the six locations are projected to exceed a CUF of one during the period of extended operation and will be managed by this AMP.

Mr. Eads described some of the staff's findings from their evaluation of the AMRs.

Originally the applicant stated that loss of fracture toughness in cast austenitic stainless steel piping is not an aging effect requiring management because of leak-before-break (LBB) evaluations. As a result of the staff's review, the applicant committed to managing this aging effect with either enhanced volumetric inspections or a component-specific flaw tolerance evaluation.

The Flow Accelerated Corrosion Program was originally credited with managing aging of the Unit 2 steam generator steam nozzle flow restrictor. After the staff's review, the applicant stated that loss of material for this component will be managed by video inspection and venturi inner diameter measurements as part of the Steam Generator Structural Integrity Program.

For Unit 2, one of the three standby reactor vessel surveillance capsules will be withdrawn and tested during the period of extended operation. For Unit 3, one capsule will be withdrawn and tested when it receives a neutron fluence equivalent to 60 years of operation.

Mr. Eads noted that the below grade environment at Millstone is non-aggressive based on measured pH values, chloride levels, and sulfate levels.

Time Limited Aging Analyses

Mr. Eads described the staff's review of TLAAAs.

Embrittlement of the reactor vessel affects TLAAAs associated with upper shelf energy (USE), pressurized thermal shock (PTS), and pressure-temperature limits. Calculations by the staff and applicant demonstrate that the limiting beltline material for each unit exceeds the minimum USE acceptance criterion through 54 Effective Full Power Years (EFPY). The staff also performed independent calculations of RT_{PTS} values and concluded that the limiting beltline material continues to meet the PTS screening criterion.

The staff concluded that the continued implementation of the EQ of Electrical Equipment Program is adequate to manage the effects of aging on the intended functions of these components.

A trending analysis of Unit 2 containment tendon prestress forces projected to 40 and 60 years shows that the minimum values will be exceeded.

In the review of the containment liner plane and penetration fatigue analysis, the staff concluded that the number of load cycles used by the applicant for the period of extended operation is conservative and the assessment of fatigue life is acceptable.

Two of the open items deal with plant-specific TLAAAs. Open Item 4.7.3-1(a) deals with the Unit 2 Reactor Coolant Pump Code Case N-481 and Open Item 4.7.4-1 deals with LBB analyses.

Mr. Eads concluded by stating that there is reasonable assurance that activities will continue to be conducted in the renewal term in accordance with the current licensing basis.

Public Comments

Ms. Burton, Connecticut Coalition Against Millstone, made a statement to the Subcommittee against the relicensing of Millstone Units 2 and 3.

Ms. Burton cited several alleged cases of cancer which she implied were caused by radionuclides, toxic chemicals and heavy metals discharged into Niantic Bay by Millstone. These include jawbone cancer in Zachary M. Hartley, skin cancer on the feet of a woman who waded in the shore near the plant, a rare kind of thyroid cancer that has been seen around Chernobyl, and brain tumors in several Millstone employees.

A newspaper article in the Hartford Courant dated March 4, 2005, reported a sample of goat milk containing a concentration strontium-90 nearly two times the highest measured value obtained during the era nuclear weapons testing. She stated that the Connecticut Fisheries Commission also attributes the near extinction of the Niantic winter flounder to the thermal discharge plume from Millstone.

Ms. Burton stated that current operations at Millstone are not being adequately monitored and maintained by existing programs. On January 14, 2005, a fire in the Unit 2 turbine building resulted in a stationwide evacuation of non-emergency personnel. This fire also disabled Millstone site security. This event occurred two weeks after an NRC inspection of the turbine building reported no significant findings. Additional examples of degraded conditions at the plant are listed in an April 5, 2005, letter from Ms. Burton to the ACRS.

Ms. Burton pointed out that the National Pollution Discharge Elimination System (NPDES) Permit issued to Millstone expired in 1997. The Connecticut Coalition Against Millstone intends to file a lawsuit requiring Millstone to convert from a once-through cooling system to a closed cooling system if a new NPDES permit is issued. Dominion's LRA failed to identify this possible conversion as a major refurbishment.

Ms. Burton concluded by stating that alternative energy sources are available in Connecticut so nuclear power is not needed.

Member Comments

General

Several Members questioned the 10 CFR 54.17(c) exemption granted by the staff for Unit 3. The staff stated that Millstone Unit 3 was not the first to receive a 10 CFR 54.17(c) exemption. The basis for granting this exemption is the operating experience obtained by Dominion from

Units 1 and 2. Since all three units are different, Members questioned transferability of operating experience from one unit to another. Member Rosen requested that the staff provide a complete discussion of the basis for this exemption at the Full Committee meeting.

In response to a question from Chairman Sieber, Dominion stated that it owns all three Millstone units. Millstone Unit 1 fire protection equipment was reassigned to Unit 3 and included in scope of license renewal. Dominion added that all three units will be decommissioned as a site.

Chairman Sieber noted that the 617 EF outlet temperature for Unit 3 is high and may affect aging of Ni-based alloys.

Member Shack noted the fairly low reactor head temperature for Unit 2 and asked about crack indications in the control rod drive mechanisms (CRDMs). Dominion stated that in 2002 indications were found on three CRDM nozzles and during the next outage indications were found on eight CRDM nozzles. None of these indications were leaking and all were repaired. The pressurizer was showing similar signs of degradation.

The staff was unable to answer Chairman Sieber's question regarding the number of Requests for Additional Information (RAIs) that have been issued. Chairman Sieber stated that the number of RAIs is descriptive of the quality of the application and the extensiveness of the staff's review. The staff stated that Dominion's application was of high quality and the on-site audits performed by the staff did not result in any RAIs. During the audit, the staff generated 205 questions that were all closed. Chairman Sieber noted that the audit process improves the efficiency of the review process and the staff's review is focused on the proper issues.

Chairman Sieber noted some recent issues with design deficiencies in Whiting cranes and asked what has been done to address these issues. The staff stated that this would be treated under 10 CFR 50.55(a) as a current issue.

Member Rosen asked for some additional information regarding operator workarounds associated with valve leakage in a safety injection tank. Dominion stated that fluid from the reactor coolant system is leaking through a check valve into the accumulators resulting in a high level alarm. Operators would declare the tanks inoperable and drain them down.

Member Rosen stated that since the staff has granted Dominion an exception in the Fire Protection Program regarding the aging management of halon and carbon dioxide systems, the staff should consider revising the GALL Report appropriately.

Chairman Sieber noted that many of the points brought up by Ms. Burton were issues related to current operation and not license renewal.

Consultant Barton suggested that in response to the issues raised by Ms. Burton, the staff describe recent operating history and inspection results at the Full Committee meeting

Scoping and Screening

Member Shack asked if the Maintenance Rule scoping matrix brought any components in scope of license renewal that would have been missed from just examining design basis documents. The applicant stated that nothing was added, but it was useful as a validation tool.

Chairman Sieber asked what criteria are used to expand the scope of an inspection if the inspection results show deficiencies in an inspection sample. The staff stated that for the case of scoping of 10 CFR 54.4(a)(2) components, the applicant eliminated the use of engineering judgment as a criterion and adopted a spaces approach.

Aging Management

Consultant Barton asked why Unit 3 does not use the Boraflex Monitoring Program. Dominion stated that although boraflex is used at Unit 3, it is not credited with maintaining criticality below 0.95.

Consultant Barton asked about the Fuel Oil Chemistry Program which takes six exceptions to the GALL Report. One exception is that fuel oil additives are not used. Dominion stated that previous inspections have shown that the fuel tanks are still in good condition. The staff reviewed their operating experience and determined that additives were not needed. Dominion added that fuel tanks are regularly monitored, the fuel oil is circulated, and samples are tested. Chairman Sieber noted that use of these additives is a preventive measure as well as a corrective measure.

Consultant Barton described an event in which a fire occurred because of loose bolting in a bus duct and asked why the Bolting Integrity Program did not address bus ducts. Dominion stated that the bus ducts within scope for Millstone are welded with no bolted connections. In addition the conditions which caused the fire are not present in the Millstone bus ducts.

Dominion has committed to numerous activities prior entering the period of extended operation. Consultant Barton stated that some of these activities should be performed now and a detailed implementation schedule and priority list should be developed. Member Rosen stated that this phase-in schedule should be provided to the Committee. Dominion stated that specific dates for implementing these commitments have not been established but they do not intend to wait until just prior to the period of extended operation. Chairman Sieber added that for one-time inspections, scheduling is important because they can't be performed too soon because degradation would not yet have occurred, and they can't be performed all at once just prior to entering the period of extended operation.

Consultant Barton noted that the LRAs did not identify any need for one-time inspections. Dominion stated that individual AMPS have commitments to perform baseline inspections which are effectively the same as a one-time inspection.

Since the Electrical Cables Not Subject to 10 CFR 50.49 EQ Requirements Program is new, Consultant Barton asked what aging management activities have been performed on these cables to date. Dominion stated that there are actually several Non EQ cable programs. One is the new program described in the presentation. Another is specifically dedicated to underground medium voltage cables that involves pumping out water that has drained to cable vaults.

Consultant Barton and Chairman Sieber asked about the General Conditions Monitoring Program. These walkdowns are performed on every shift (2 per day). Dominion added that they also take advantage of surveys performed by health physicists and other reports from system walkdowns. One of the program enhancements will be to provide additional training to operators on aging effects so they will know what things to look for during these walkdowns. Chairman Sieber added that implementing this training program should have a high priority.

Consultant Barton asked if the emergency diesels were accessible. Dominion responded that they are accessible but are located in an area that is just not frequently accessed. Therefore, they were placed in the Infrequently Accessed Areas Inspection Program to ensure they were inspected.

In response to question from Consultant Barton, Dominion stated that the Engineering department is responsible for the Boric Acid Corrosion Program.

Member Rosen asked why the GALL Report does not recognize risk-informed Inservice Inspection (ISI) Programs as an acceptable alternative. The staff stated that the GALL Report

endorsed a certain edition of the code and that alternative approaches will be evaluated against the approach described in the GALL Report. The staff will consider incorporating a risk-informed ISI in the proposed revision to the GALL Report.

Chairman Sieber asked what program is used to manage the effects of aging on the Unit 3 containment liner plate. Dominion stated that visual inspections of the liner are performed as part of the IWE/IWL Containment ISI program.

Consultant Barton asked why no AMP exists for containment coatings. Dominion stated that credit was not taken for these protective coatings in aging management evaluations. Consultant Barton stated that this issue should be discussed at the Full Committee meeting.

Time-Limited Aging Analyses

In response to a question from Member Shack, Dominion confirmed that the Unit 3 hot leg to vessel welds contain Ni-alloys. Member Shack asked why the LBB analyses do not discuss SCC for this material. The staff stated that this is a current licensing issue. Member Shack suggested that this issue be addressed in a manner similar to the Farley license renewal application.

In response to a question from Member Rosen, the staff stated that other applicants are aware that TLAA's for radiation embrittlement should assume a 90% capacity factor.

Member Rosen noted that the upper shelf energy and RT_{PTS} values at 54EFPY are well within the screening criteria. The staff attributed this to the low copper and nickel materials used in the reactor vessel beltline.

Member Shack commented that a large number of RAIs were issued regarding differences in material chemistry values and fluence calculations. The staff stated that as more data is collected discrepancies in the material chemistry databases will occur. Since the fluence calculations for Unit 2 were not performed according to Regulatory Guide 1.190, the staff increased these values to conservatively take into account the different methodology.

Subcommittee Decisions and Follow-up Actions

The Subcommittee Chairman will summarize the discussions to the full Committee during the April 2005 ACRS meeting.

Background Materials Provided to the Committee

1. Millstone Power Station Unit 2 Application for Renewed Operating License, Vol.1 and 2, January 2004
2. Millstone Power Station Unit 3 Application for Renewed Operating License, Vol.1 and 2, January 2004
3. Millstone Power Station Unit 2 and 3 License Renewal Application Inspection Report 05000336/2004009, 05000423/2004009, December 3, 2004
4. Millstone Power Station Unit 2 and 3 License Renewal Application Inspection Report 05000336/2004010, 05000423/2004010, December 3, 2004
5. Audit and Review Report for Plant Aging Management Reviews and Programs, Millstone Power Station Units 2 & 3, Information Systems Laboratories, Inc., February 2, 2005
6. Safety Evaluation Report with Open Items Related to the License Renewal of the Millstone Power Station, Units 2 and 3, dated February 2005
7. Letter from N. Burton, Connecticut Coalition Against Millstone, to ACRS, Subject: Millstone Nuclear Power Station Application for License Renewal, April 5, 2005
8. Burton, N., Connecticut Coalition Against Millstone, Millstone-2004: Expose of Degrading Conditions, April 5, 2005
9. Letter from N. Burton, Connecticut Coalition Against Millstone, to P. Kroh, NRC/Region I, Subject: Millstone Nuclear Power Station, April 1, 2005

10. Letter from N. Burton, Connecticut Coalition Against Millstone, to NRC/Rules and Directives Branch, Subject: Millstone Nuclear Power Station/Draft Environmental Impact Statement, March 2, 2005
11. Letter from N. Burton, Connecticut Coalition Against Millstone, to NRC/Rules and Directives Branch, Subject: Millstone Nuclear Power Station/Draft Environmental Impact Statement/Supplemental Comments, March 16, 2005

NOTE:

Additional details of this meeting can be obtained from a transcript of this meeting available in the NRC Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, MD, (301) 415-7000, downloading or viewing on the Internet at <http://www.nrc.gov/reading-rm/doc-collections/acrs/> or can be purchased from Neal R. Gross and Co., 1323 Rhode Island Avenue, NW, Washington, D.C. 20005, (202) 234-4433 (voice), (202) 387-7330 (fax), nrgross@nealgross.com (e-mail).
