PARSONS

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March 23, 1998
Docket No. 50-336
Parsons NUM2-PPNR-1282-L

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Millstone Nuclear Power Station Unit No. 2
Independent Corrective Action Verification Program (ICAVP)

Gentlemen:

This letter transmits summaries of telephone conferences between Parsons Power Group Inc., the U. S. Nuclear Regulatory Commission, NNECo and NEAC on February 26, March 3, March 5, March 10 and March 12, 1998.

Please call me at (610) 855-2366 if you have any questions.

Sincerely,

Daniel L. Curry
Parsons ICAVP Project Director

DLC:djv

Attachments
1. Telephone Conference Notes from February 26, 1998
2. Telephone Conference Notes from March 3, 1998
3. Telephone Conference Notes from March 5, 1998
4. Telephone Conference Notes from March 10, 1998
5. Telephone Conference Notes from March 12, 1998

1/1

A001

cc:
E. Imbro (2) - USNRC
H. Eichenholz - USNRC
R. Laudenat - NNECo
J. Fougere - NNECo
Rep. Terry Concannon - NEAC
Project Files

ADMINISTRATIVE CONFERENCE NOTES
February 26, 1998

DATE: 2/26/98

PURPOSE: **Administrative telephone conference with NNECo, NRC , NEAC and Parsons to discuss:**

1. **Engineering Procedure Containing Valve Thrust Values**
2. **Maintenance Rule**
3. **Process Interface Between UIRs and CRs**
4. **Procedure MP 2721D**
5. **RAI-1068**
6. **Bechtel Users Manual, Document No. M-18**
7. **ESAS SIAS Pressurizer Pressure (P-102A, B, C, D) Setpoint**
8. **Containment Pressure (P-8113, 8114, 8115, 8116) SIAS Setpoint**
9. **Large Break LOCA Containment analysis**
10. **Procedure MP 2721D**
11. **Millstone Unit 1 and Unit 3 Emergency Generators**

LIST OF ATTENDEES:

NNECo	NRC	NEAC	Parsons
Joe Fougere	Ralph Architzel		Wayne Dobson
Fred Mattioli			Don Marks
Madison Long			Ray Thomas
Kea Fox			Clark Tracy
Cris Cristella			Dan Wooddell
Dave Bajumpaa			Dom Ramos
Steve Stadnick			Larry Collier
Ed Dundon			Ken Gabel
Greg Tardiff			Richard Boyd
Norm Hanley			
Dan VanDuyne			

1. **Topic:** Engineering Procedure Containing Valve Thrust Values. (Jim Collins) [continued from 2/24/98]

Background: In the description of condition of NCR 293-012, a reference is made to EN21223 Rev 0 CH2. This appears a procedure for the source of allowable valve thrust values and is assumed to be an engineering EN procedure. During the ICAVP Tier 3 review of this NCR, a search of the WORLDVIEW database could not find the procedure, the procedure number could not be found in OSCAR, nor was it listed in the U2 Engineering EN Procedures Table of Contents.

Questions:

a) Is this an engineering procedure? If so, where can it be found?

b) If the procedure no longer exists, what has replaced it for the source of the thrust values?

Response: *EN21223 is not a source document for the allowable valve thrust values. It was a testing procedure which contained an attachment which listed the allowable values which came from calculations which are the source for the values. This procedure is no longer used, the new procedure is MOV 1220.*

2. **Topic:** Maintenance Rule. (Larry Collier) [continued from 2/24/98]

Background: ESAR PGRM-97-050, PI-21 dated 6/26/97 checklist item A stated that "Licensing should develop and document a Unit 2 commitment position for implementing the Maintenance Rule in accordance with Regulatory Guide 1.160 Revision 2". The Maintenance Rule Program is important in that it is integral part of determining whether certain CR's should be initiated to resolve a UIR.

Questions:

a) Has a Maintenance Rule program or procedure been written and approved describing and fulfilling all the elements specified in 10CFR50.65?

Response: *Yes.*

b) Please provide the document name and number.

Response: *OA-10*

3. **Topic:** Process Interface Between UIRs and CRs. (Wayne Dobson/ Jim Collins) [continued from 2/24/98]

We would like a better understanding of how NNECo intends UIRs and CRs to work together to control corrective actions. From our reading of RP-4, we would have expected many of the items identified in UIRs to have resulted in a CR, but no CR was written. We would like to discuss this topic. The following attempts to describe the basis for our confusion and the type of questions we have.

Background:

We understand that Millstone Nuclear Power Station Administrative Procedure PI 14, "Configuration Management Plan Project Process Administration Instruction", addresses when a CR is prepared in conjunction with a Unresolved Item Report, (UIR). This procedure contains two notes identifying that CRs will be generated to address issues of a repetitive or programmatic nature. In addition, step 1.3.2 of PI 14 specifies that if an item is potentially reportable or impacts operability, initiate a CR. From this we conclude that a CR is written when a UIR (or several UIRs) identifies items which are repetitive or programmatic in nature; or when items are potentially reportable or impact operability.

Questions:

a) Are these the only criteria for when a CR is written, or is the direction given in RP-4 also applicable to the items identified in UIRs? This question arises because one of the notes in PI 14 says, "Where specific questions arise as to the need for a CR, ... refer to RP-4 for additional guidance." Is all of the RP-4 guidance on when to write a CR applicable to CMP, or does PI 14 somehow limit when RP-4 is used?

Background (cont.):

Section 1.1 of RP 4 states that the Corrective Action Program for resolving conditions adverse to quality and significant conditions adverse to quality is essential in complying with 10CFR50 Appendix B Criterion XVI. The section identifies the types of conditions. These are: 1) external event, 2) design deficiencies, 3) human performance, 4) component failure, 5) program or procedure inadequacy, and 6) ineffective management oversight.

The section then states that "A Condition Report, or "CR", is initiated for adverse, discrepant, or other conditions needing improvement.". It appears that the criteria for when a CR is to be written is broader in RP-4 than in PI 14.

The following UIR examples have contributed to our confusion. In UIRs 3100 and 3265 the conditions were determined not to require a CR and had not identified potential safety significant conditions. These UIRs identified many instances where valve positions on operations critical drawing were incorrect. In another instance, UIR 3355 documented that the NRC inspector noted that valve lineup check sheets were inconsistent with procedure and with the Control Room OPS Critical drawing. The UIR stated that system makeup valve 2-PMW-167 is closed by the procedure, but is shown open on the drawing in the updated final safety analysis report and the most recent P&ID. CR # M2-97-1881 was initiated to document this discrepancy. This condition appears to be similar to those identified in UIRs 3100 and 3265, yet no CR was initiated for these two UIRs.

Questions:

b) How does NNECo interpret PI 14 and RP-4 regarding when a CR should be written?

Response: *RP-4 is the procedure that controls the 10CFR50 Appendix B corrective action process. PI 14 was written to avoid overloading the CR process during CMP, since it was expected that a large number of problems would be found during CMP that would not necessarily impact plant operability or be potentially reportable. The decision was made not to write a CR each time an other example of a repetitive or programmatic problem was identified in a UIR. Instead the repetitive or programmatic problem was identified in one CR. As CMP progressed the project issued three memos addressing CRs and UIRs:*
Memo # M2 97 023-113 dated 5/21/97
Memo # M2 97 023-115 dated 5/22/97
Memo # M2 97 023-276 dated 8/15/97

The first two memos addressed the need to write CRs, the third issued a matrix on trends of problem areas and the documents that addresses these issues.
One of the things that the UIR review panel looked for was the need to write a CR. An other factor in whether a CR was written is individual differences on what is considered important. NNECo indicated that CRs topics range from finding coffee grounds in a water cooler to a safety analysis is incorrect.

NNECo offered no explanation for the UIR examples in the conference question other than individual differences on what is considered important. Since the NRC had raised the concern in one case, it was more than likely considered important.

During the conference all agreed that should Parsons determine during its review of corrective actions that a CR should have been written and it was not, a Discrepancy Report would be written.

From the discussion, it is clear that NNECo intended a CR to be written when the UIR identified an item that was potentially reportable or impacted operability. Also a CR was to be written when it was determined that a repetitive or programmatic issue was found. Beyond this it appears that the controlling factor on whether a CR was written was individual decisions on what is considered important.

NNECo stated that since CMP is complete UIRs are no longer being written; CRs are used.

4. **Topic:** Procedure MP 2721D. (Daniel Wooddell) [continued from 2/24/98]

Background: Procedure MP 2721D, Emergency Diesel Generator Fire Water Connection to Engine Cooling System, Paragraph 1.2, states that the Fire Water System can supply 559 gpm of water for emergency diesel generator cooling.

Questions:

a) What method was used to determine the 559 gpm flow rate?

b) Is this flowpath periodically tested? If so, what procedure is used to perform the test?

Response: *Since Topic 4 is essentially the same as Topic 10, see the responses below to questions for Topic 10.*

5. **Topic:** RAI-1068 (Larry Collier)

Background: RAI-1068 was written to request the following for Pressurizer Safety Valve 2-RC-201:

- Torque Values that apply to the inlet and outlet flanges of the safety valve,
- Supporting calculations for the torque values on the inlet and outlet flanges.

Memo DE2-96-128 was sent explaining that final pre-load for the inlet flange studs, after careful torquing, will be less than target calculated pre-load, and operating conditions do not significantly increase the bolt load. Also, the memo explained that the expected stud service stresses will be limited and are not expected to exceed the limits of NB-3230. The RAI response, M2-IRF-01194, did not include the requested calculations for the inlet flange relative to normal operating conditions or to transient conditions described in NB-3230.

Questions:

a) Are calculations available for the inlet flange that support a minimum and a maximum torque value for those conditions specified in NB-3230?

b) Are calculations available that will support the minimum and maximum torque value as specified in CMP715A1 Rev 1, Work Control Practices for Threaded Fasteners, and ND-3230 on the outlet flange studs?

c) Please provide the document number for any existing calculations referenced in questions 1 and 2.

Response: *Topic deferred to 3/5/98.*

6. **Topic:** Bechtel Users Manual, Document No. M-18 (Ken Gabel)

Background: Bechtel Document No. M-18, entitled Office and Field Engineering Users Manual For Routing and Supporting Two Inch and Under Piping, was provided in response to Parsons RAI-1053. The document received did not include Appendix B, the project seismic span tables (page A49), and the project effective acceleration tables (page A51). A similar document exists in Bechtel Design

Guide WO-30, entitled Office and Field Engineering Users Manual For Supporting 2" and Under Seismic Class I Piping and Tubing.

Questions:

a) Do Appendix B pages, project seismic span tables, and project effective acceleration tables exist for Bechtel Document No. M-18?

b) Do qualification calculations exist for the design guidelines contained within Bechtel Document No. M-18?

c) Do qualification calculations exist for the standard 2" and under pipe support configurations included within Bechtel Document No. M-18 and Bechtel Design Guide WO-30?

d) How were the M-18 and WO-30 design manuals implemented with respect to each other?

e) Are these M-18 and WO-30 design manuals living documents?

Response: *Bechtel document # M-18 was not applicable to Millstone Unit 2 based on the absence of it not being listed in a 6/1/77 Bechtel letter which identified calcs and specs used in the M2 design. The M-18 document was previously provided as the design guidelines for vent and drain installations at M2. Discussion focused on defining the exact issue Parsons was concerned about with regard to: vents; drains; small bore piping. Resolution was deferred to 3/5/98.*

7. **Topic:** ESAS SIAS Pressurizer Pressure (P-102A, B, C, D) Setpoint (Ray Thomas)

Background: The ESAS SIAS Pressurizer Pressure Setpoint is set in the Surveillance Procedure (SP 2402B; Pressurizer Pressure Calibration) at 1620 Psia ± 1.5% and meets the requirements specified in the UFSAR, the Setpoint Calculation and in the Technical Specification.

Questions:

a) What is the basis for the ESAS SIAS Pressurizer Pressure Setpoint being set specifically at 1620 Psia ± 1.5% per the Surveillance Procedures and what documentation supports this actual setting?

b) In effect, is there a 50.59 Evaluation, Modification, or some other design document that actually approved the existing Surveillance Procedure's setpoint?

Response: *NNECo will research and discuss on 3/5/98.*

8. **Topic:** Containment Pressure (P-8113, 8114, 8115, 8116) SIAS Setpoint (Ray Thomas)

Background: The Containment Pressure SIAS Setpoint is set in the Surveillance Procedure (SP 2403D; Containment Pressure Calibration) at 3.80 Psig ± 1.5% and meets the requirements specified in the UFSAR, the Setpoint Calculation and in the Technical Specification.

Questions:

a) What is the basis for the Containment Pressure SIAS Setpoint being set specifically at 3.80 Psig ± 1.5% per the Surveillance Procedures and what documentation supports this actual setting?

b) In effect, is there a 50.59 Evaluation, Modification, or some other design document that actually approved the existing Surveillance Procedure's setpoint?

Response: *NNECo will research and discuss on 3/5/98.*

9. **Topic:** Large Break LOCA Containment analysis (Richard T. Boyd)

Background: References:

1. Document ERC #25203-ER-97-0353; Transmittal of Design Inputs for Millstone Unit 2 Large Break LOCA Containment analysis
2. Calc S-01357-S2 Rev. 0, 3/4/96; "Minimum Time to Sump Recirculation Actuation Signal"
3. Calc 1D30-3 Rev. 0, 7/14/69, "Level in Recirculation Sump (Containment)"
4. Calc 77-645-34 GM Rev. 0, 10/6/77; "HPSI Pump NPSH- Maximum Flow in Recirculation"
5. Calc 96-020-1367-M2 Rev. 0, 4/23/96; "Insulation Debris Transport and Head Loss"

Ref. 1 was received to review the design inputs for critical characteristics of equipment used to mitigate Chapter 14 Accident Analyses. In this review it became apparent that the HPSI flows are at odds with the current Licensing Basis and design basis.

Ref. 1 specifies HPSI flows following SRAS in Tables 2 through 6. Tables 3, 4, and 6 identify flows with one HPSI pump assuming a diesel generator failure. The total of these flows in each case are greater than 675 gpm (Table 3- 689; Table 4- 685; Table 6- 693).

Previous calculations have identified the limitation of the HPSI system based on the NPSH available. With Ref. 1 basing the flow to containment on Ref. 2 of 298,800 gallons, the resulting level in containment is only 3.7 ft using Ref. 3. This assumes no loss of water due to holdup in containment or absorption by insulation. With 3.6 ft of water Ref. 5 calculated a head loss of 0.43 ft. From Ref. 4 $NPSH_A$ was calculated at 21.87 ft assuming a level of 4.4 ft in containment; adjusting for 3.6 ft and the screen head loss, this gives a $NPSH_A$ of approximately 20.7 ft with no margin. This would result in an allowable pump flow of approximately 657 gpm. The $NPSH_R$ at 690 gpm is approximately 22.5 feet (Ref. 4). Although this is an approximation only, the difference between the required and available NPSH seems quite large.

Questions:

a) What accounts for the greater $NPSH_A$ and thus higher flows being available?

b) What margin on flows or NPSH are being applied?

c) What affect would there be on the pump flows for a broken RC loop, thus causing greater flows in one leg?

Response: *Dave Bajumpaa of Safety Analysis identified that the input into the Safety Analysis is based on a new calculation which modeled the HPSI system. The calculation which revised the HPSI flows also modeled and evaluated the NPSH requirements. This calculation is Proto-Power Calculation 97-122 Rev. C, "Millstone Unit 2 ECCS System Analysis," November 26, 1997. It may be in the NU Calc Tracking System under another number or as the Proto-Power number.*

10. **Topic:** Procedure MP 2721D (Dan Wooddell)

Background: Follow-up questions that were postponed from the 2-24-98 conference call concerning Fire Service Water supplying the EDGs.

Questions:

a) What was the actual cooling water flow rate to the diesel generators when the Fire Service Water Emergency Supply was pre-operationally tested?

Response: *Fire Water System flow to the diesel generator was 500 to 690 gpm. The test document noted that flow was oscillating.*

b) What are the document numbers for the pre-operational tests?

Response: *The test was performed by AWO M2-95 06681. A Test Plan titled "Flow Water Cross Tie Retest Plan" is attached to the AWO.*

11. **Topic:** Millstone Unit 1 and Unit 3 Emergency Generators (Dan Wooddell)

Background: N/A

Questions:

a) Are the Millstone Unit 1 and Unit 3 Emergency Generators susceptible to a loss of Service Water Cooling flow?

Response: *Unit 1 is susceptible to a loss of Service Water flow to the Diesel Generator. Information concerning Unit 3 was not available at the time of the conference call.*

b) If so, is the Fire Water System utilized as a backup cooling water supply?

Response: *Unit 1 has a non-approved connection to the Fire Water System.*

NOTE: NU requested that Parson's questions be more direct as to the issue being investigated. Question No. 11 is being rephrased as follows for the 3-05-98 conference call: "If Unit 3 is subject to a loss of Service Water, does the emergency diesel generator use the Fire Water System as a source of backup cooling water? If Yes, can the Fire Water System support the support the operation of three diesel generators?

ADMINISTRATIVE CONFERENCE NOTES
March 3, 1998

DATE: 3/3/98

PURPOSE: Administrative telephone conference with NNECo, NRC , NEAC and Parsons to discuss:

LIST OF ATTENDEES:

NNECo	NRC	NEAC	Parsons

This conference was canceled.

ADMINISTRATIVE CONFERENCE NOTES
March 5, 1998

DATE: 3/5/98

PURPOSE: **Administrative telephone conference with NNECo, NRC , NEAC and Parsons to discuss:**

1. **P&ID revision described by DCN DM2-S-0225-96**
2. **Disposition of NCR 293-052**
3. **Follow-up on NCR 291-0188**
4. **P&ID revision due to DCN DM2-S-0878-95**
5. **Fire Water System**
6. **Low Speed Stop for Aux. Feedwater Pump Turbine Governor Speed Changer**
7. **Calculation 405286**
8. **Simulator Observation**
9. **HEPA Filter Testing**
10. **Bechtel Users Manual, Document No. M-18**
11. **ESAS SIAS Pressurizer Pressure (P-102A, B, C, D) Setpoint** [Note: This Topic was not on the original agenda, but was a carry over from 2/26/98.]
12. **Torque Values and Supporting Calculations** [Note: This Topic was not on the original agenda, but was a carry over from 2/26/98.]

LIST OF ATTENDEES:

NNECo	NRC	NEAC	Parsons
Joe Fougere	Ralph Architzel		Wayne Dobson
Fred Mattioli			Don Marks
Greg Tardiff			Dom Ramos
Geoff Neate			Dan Wooddell
Ken Fox			Dale Pruitt
Glenn Gardner			Colin Patton
John Becker			Bob Moyer
Rick Bonner			Ken Gabel
Rich Ewing			Ray Thomas
			Jim Collins
			John Hilbish
			Andy O'Connor
			Claude Didier

1. **Topic:** P&ID revision described by DCN DM2-S-0225-96 (Claude Didier)

Background: The DCN's DM2-S-0225-96 and DM2-S-0565-93 showed a modification which installed two valves 2-SW-298 and 2-SW-299 and four orifices RO-6667, RO-6668, RO-6669, and RO-6670. We have not been able to find a drawing of these orifices.

Questions:

a) Are the orifices depicted on a drawing, if so what is the drawing number and its issue date?

Response: *Two drawings were identified: 25203-20122 sheet 41 and sheet 46. Sheet 41 was revised on 7/29/97 and incorporates a detail of the orifice similar to the detail in the DCN. Sheet 46 has not yet been updated.*

2. **Topic:** Disposition of NCR 293-052 (Jim Collins)

Background: NCR 293-052 was initiated because the Control Switch Trip (CST) and Total Thrust (TT) were exceeded during VOTES testing of MOV 2-SI-651. The disposition of the NCR states that the valve vendor representative was contacted, and he stated that conditions could have caused cracking or wear to the hardface material of the backseat or the stem shoulder. The disposition further states that damage to the backseat will not cause in-operability of the valve, and that the valve is normally closed and not intentionally backseated. No mention is made in the disposition of potential cracking as mentioned by the vendor representative.

Questions:

a) Since a crack in the valve backseat material or stem shoulder could propagate to the point of valve failure, were any inspections or evaluations performed to determine if any cracking may have occurred as mentioned by the vendor representative?

b) If none were performed, why didn't the NCR provide justification for not performing any?

Response: *This Topic was deferred to 3/10/98.*

3. **Topic:** Follow-up on NCR 291-0188 (Jim Collins)

Background: In the 2-24-98 teleconference NNECo stated that procedure NEO 2.21 controlled the tagging of EQ equipment with the green tag at the time the NCR 291-0188 was initiated. The response stated that the identification of EQ equipment is now controlled within the EQ program, green tags are no longer used and are being removed from equipment as maintenance is performed. However, a review of the procedure found no reference to the use of green tags for equipment identification. The reason for the question was the fact that the NCR disposition inferred that the presence of the green tag alerted personnel that procedures be reviewed for any special requirements that may apply.

Questions:

a) Revision 2 of NEO 2.21 was in effect at the time the NCR was initiated. What section of the procedure controlled and defined the purpose of the green tags?

Response: *As stated in the 2-24-98 teleconference, NEO 2.21 does not control the installation of green tags. Green tags are no longer used and are being removed as maintenance is performed. At the time of the NCR three documents were in place that controlled the green tags. They were - 1) Maintenance procedure MP 2720T R0 issued 10/30/85. Section 5.2 stated that the equipment will be identified by a green metal tag or sticker, 2) Department Instruction 2-NPM-1.43, R0 issued 10/29/85 which provides guidelines for the maintenance of EQ equipment, and 3) I & C procedure IC 2418M R0 issued 10/29/85 which is similar to the maintenance procedure and requires green metal tag or sticker and refers to Figure 7.2 for a recommended location.*

4. **Topic:** P&ID revision due to DCN DM2-S-0878-95 (Claude Didier) [Continuing from 2/3/98 & 2/5/98]

Background: The RBCCW P&ID 25203-26022 has been updated per the DCN DM2-S-0878-95 and 3 drain valves 2-RB-405, 2-RB-406, and 2-RB-412 have been added per a walkdown. In prior

telecons, questions were raised regarding drawings for these valves/installations. The response from Millstone was that Millstone was not able to identify any drawing other than the P&ID. Bill Price was looking at Bechtel Spec MS-6 and M-18 to see how vents and drains were handled including seismic issues. Since drawings of the valves and its installation configuration do not exist, we are trying to understand what is the design basis for these valves and how did Millstone's CMP verify that these valves meet the design basis.

Questions:

a) Since the P&ID does not identify critical characteristics of the design and installation, what documents (e.g. specifications, procedures, calculations, instructions, purchase orders, QA inspection records etc.) specific design and installation items such as valve materials, pipe and valve dimensions, pipe and valve configuration, type of valve, valve manufacture, weight etc.?

b) What was the design basis used for these valves by the CMP and how was it verified?

Response: *This Topic was deferred to 3/10/98.*

5. **Topic:** Fire Water System. (Daniel Wooddell)

Background: N/A

Questions:

a) If Unit 3 is subject to a loss of Service Water due to flooding , does the emergency diesel generator use the Fire Water System as a source of backup cooling water?

Response: *No.*

b) If Yes, can the Fire Water System support the support the operation of three diesel generators?

Response: *N/A.*

6. **Topic:** Low Speed Stop for Aux. Feedwater Pump Turbine Governor Speed Changer. (Dale Pruitt)

Background:

References:

1. PDCR 2-003-75, Low Speed Stop for AFW pump Turbine Governor Speed Changer
2. PMMS Database, Component M2-02-AFW-GOV-P4G
3. 10CFR50.110, XV., 1974, Non-conforming Materials, Parts, Or Components

Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Non-conforming items

- shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.

4. Commercial Grade Dedication From CDGF MP2-0148
5. Unresolved Item Report - 2672, Missing MEPL Evaluation
6. Unresolved Item Report - 2322, Auxiliary Feedwater Terry Turbine Governor EQ compliance

Plant Design Change Request 2-003-75 identified a non-conforming governor on the AFW Terry Turbine. The problem was the AFW Terry Turbine governor would jam requiring the speed control to be reworked at an unacceptable frequency. The governor installed was designed to be operated in a control air speed control system. The application was a remote electric control. As a result there was no provision for a low speed stop normally not required for the designed application. Without the stop, the governor could go to a position that jammed the control motor clutch. The vendor provided a service bulletin to modify the installed part however offered a different model for the application. The modification was canceled without an explanation documented in the canceled document.

A search of the PMMS Database did not locate a work request that addressed the condition, but the database only listed work requests back to 1985 (This is a 1975 item). It is noted that work orders reviewed since 1985 did not indicate any binding of the type described in the original problem description. Also the governor was rebuilt about 1990 and tested. However documentation of the solution of the problem and assurances that a reoccurrence was unlikely could not be located.

Questions:

a) How was this non-conforming condition resolved?

b) What is all the recorded documentation applicable to the resolution of this nonconformance/condition in accordance with Reference 3?

c) How did or does operations cope with the condition?

Response: *This Topic was deferred to 3/10/98.*

7. **Topic:** Calculation 405286. (Robert Moyer)

Background: Pipe support calculation 405286, rev 1, was performed to verify the adequacy of the support for various as-built conditions, among them the additional load from two non-safety lines. Page 9 of the calculation shows the support model and loads. It appears that the loads for the two non-safety lines were obtained from their respective support drawings, 350021 and 315153.

Questions:

a) Do the loads for the non-safety lines include seismic amplification?

Response: *This Topic was deferred to 3/10/98.*

8. **Topic:** Simulator Observation. (Cliff Marks)

Background: To better understand how EOP actions are performed and Control Board indications are used by operators, it is desired to observe a simulator session. The session may be "training" or "evaluated" at your discretion. It is intended that the observation team be limited to 3 or fewer members.
Information will be gathered on:

- Decision taking and event diagnosis in EOP 2525
- Use of EOP 2532
- Alarm response
- Indication usage

Questions:

a) What the schedule for simulator sessions when we can observe the performance of EOP 2525 and EOP 2532, during re-qualification training?

Response: *As per NRC direction this Topic/Question is out of scope and was no addressed.*

9. **Topic:** HEPA Filter Testing. (Colin Patton)

Background: Surveillance Procedure, SP 2654F checks the differential pressures across HEPA filters, L25 and L27, on a weekly basis? It appears that these filters fall under the requirements of Regulatory Guide 1.140.

Questions:

a) What procedure performs DOP testing of filters L25 and L27?

Response: *SP2654Q*

10. **Topic:** Bechtel Users Manual, Document No. M-18 (Ken Gabel)

Background: Bechtel Document No. M-18, entitled Office and Field Engineering Users Manual For Routing and Supporting Two Inch and Under Piping, was provided in response to Parsons RAI-1053. The document received did not include Appendix B, the project seismic span tables (page A49), and the project effective acceleration tables (page A51). A similar document exists in Bechtel Design Guide WO-30, entitled Office and Field Engineering Users Manual For Supporting 2" and Under Seismic Class I Piping and Tubing.

Questions:

a) Do Appendix B pages, project seismic span tables, and project effective acceleration tables exist for Bechtel Document No. M-18?

b) Do qualification calculations exist for the design guidelines contained within Bechtel Document No. M-18?

c) Do qualification calculations exist for the standard 2" and under pipe support configurations included within Bechtel Document No. M-18 and Bechtel Design Guide WO-30?

d) How were the M-18 and WO-30 design manuals implemented with respect to each other?

e) Are these M-18 and WO-30 design manuals living documents?

Response: *The Bechtel Design Guide WO-30 is the original Millstone Unit 2 specification for 2" and under seismic class I piping. Bechtel document No. M-18 is not applicable to Millstone 2. Based on this feedback plus previous RAI responses and phone conference discussions, Millstone 2 does not have design criteria to design and/or justify existing cantilevered vent and drain line installations.*

11. **Topic:** ESAS SIAS Pressurizer Pressure (P-102A, B, C, D) Setpoint (Ray Thomas)

Background: NNECo was unclear about the intent of Topic from 2/26/98, and requested to have a discussion with Ray Thomas so the intent could be clarified.

Questions:

a) N/A

Response: The re-phrased question is as follows:

The ESAS SIAS Pressurizer Pressure Setpoint is set at 1620 Psia ± 1.5% per the Surveillance Procedure. The setpoint in the Surveillance Procedure is in accordance with the calculation's ≥ 1601 Psia and is OKAY. Please provide the documentation that was used to actually make the Setpoint at 1620 Psia ± 1.5%? (In effect, is there a 50.59 Evaluation, Modification, or some other design document that actually approved the Surveillance Procedure's setpoint versus using 1619 Psia or 1640 Psia or 1602 Psia? What is the documentation used for using 1.5% versus 1.25% or 1.35%?)

NNECo will address the question on 3/10/98.

12. **Topic:** RAI-1068 (Larry Collier)

Background: RAI-1068 was written to request the following for Pressurizer Safety Valve 2-RC-201:

- Torque Values that apply to the inlet and outlet flanges of the safety valve,
- Supporting calculations for the torque values on the inlet and outlet flanges.

Memo DE2-96-128 was sent explaining that final pre-load for the inlet flange studs, after careful torquing, will be less than target calculated pre-load, and operating conditions do not significantly increase the bolt load. Also, the memo explained that the expected stud service stresses will be limited and are not expected to exceed the limits of NB-3230. The RAI response, M2-IRF-01194, did not include the requested calculations for the inlet flange relative to normal operating conditions or to transient conditions described in NB-3230.

Questions:

a) Are calculations available for the inlet flange that support a minimum and a maximum torque value for those conditions specified in NB-3230?

b) Are calculations available that will support the minimum and maximum torque value as specified in CMP715A1 Rev 1, Work Control Practices for Threaded Fasteners, and ND-3230 on the outlet flange studs?

c) Please provide the document number for any existing calculations referenced in questions 1 and 2.

Response: *Information on the torque value is provided in calculation 94-ENG-148M2, memo PS-FD-93-006, and Teledyne report E-1475-41.*

ADMINISTRATIVE CONFERENCE NOTES
March 10, 1998

DATE: 3/10/98

PURPOSE: Administrative telephone conference with NNECo, NRC , NEAC and Parsons to discuss:

1. **Follow-up to 3/3/98 Meeting**
2. **CR-M2-97-1598**
3. **Piping QA Classification Changes**
4. **Pipe Stress Problem #25 Status**
5. **Status of EWRs Included in the Tier 3 Review Sample**
6. **Backfeed of Power from Unit 1**
7. **Disposition of NCR 293-052**
8. **P&ID revision due to DCN DM2-S-0878-95**
9. **Low Speed Stop for Aux. Feedwater Pump Turbine Governor Speed Changer**
10. **Calculation 405286**
11. **ESAS SIAS Pressurizer Pressure**
12. **Containment Pressure (P-8113, 8114, 8115, 8116) SIAS Setpoint**

LIST OF ATTENDEES:

NNECo	NRC	NEAC	Parsons
Joe Fougere	John Nakoski		Wayne Dobson
Fred Mattioli			Don Marks
Ken Fox			Bob Steinmetz
Greg Tardiff			George Vaux
Bo Pokora			Ken Gabel
John Becker			Ray Thomas
Mark Suprenant			Andy O'Connor
Jerry Brem			Claude Didier
Clark Maxson			Kent Russell
Madison Long			Jim Collins
			Dale Pruitt
			Landal Powers

1. **Topic:** Follow-up to 3/3/98 Meeting - (NNECo)

NNECo to provide Parsons and S&L with information on the following topics:

a) Minor Modifications
   - Safety Evaluation Screening
   - Status of S&L DR - 6

b) Setpoint Control

c) PI 20 deferment criteria

d) Millstone approach on correcting labeling discrepancies

e) S&L DR 1007

Response: *Deferred to 3/12/98*

2. **Topic:** CR-M2-97-1598. (George Vaux)

Background: CR-M2-97-1598 documents a problem related to Spare Parts in the storeroom which were found to be composed of a material different than the material required for the application and different than the material certified by the vendor. Specifically, stem/disk assemblies withdrawn for valves 2-CS-27 and 2-CS-37 were analyzed and found to be a 400 series stainless steel, whereas, the required parts need to be a grade CF8 stainless steel. These parts were purchased in 1975-76 time frame. (Certification dated June 4, 1976)

Review of the attached documents indicate that the vendor, Pacific Valves, Inc. through Bechtel, certified the parts and provided a chemical analysis indicating that the subject parts were ASTM A351-71, Grade CF8. The chemical analysis provided from the plant material analyzer indicated that the analysis provided was incorrect.

The chemical analysis provided by the vendor covered a number of parts in the Purchase Order (#7604-M-220A). Additionally, the Purchase Order covered a multitude of parts which were of a different material.

Questions:

a) Were other ASTM A351-71, Grade CF8 parts on this Purchase Order which are still in the storeroom or installed in the plant checked to ensure that they were the correct material? What were the results?

b) Were any ASTM A351-71, Grade CF8 parts on other Purchase Orders to Pacific Valves checked to ensure that they were the correct material? What were the results?

c) Were any Pacific Valves parts other than ASTM A351-71, Grade CF8 on this Purchase Order which are still in the storeroom or installed in the plant checked to ensure that they were the correct material? What were the results?

d) What type material analyzer is used at the plant, and is it calibrated as part of the IM& TE program?

e) How long has it been used to analyze parts pre-installation?

f) What is the sampling plan for pre-installation analysis of certified parts such as those described in the CR?

g) Have any valve parts been purchased for safety related application from Pacific Valves, Inc. since 10 CFR Part 21 became effective?

Response: NNECo answered:
Questions (a and b) with a "no". None of the questioned parts were checked to ensure that they were the correct material. They qualified the answer with the following:

- *They have initiated Condition Reports for all three units to determine the extent of condition and initiate corrective action.*
- *The Condition Report for Unit 2 is CR M2-98-0643 which we will request with an RAI.*

Question (d) with a "yes". The material analyzer is included in the IM&TE program.

With the above answers, the rest of the questions (c, e, f, g) were considered either moot or encompassed by their proposed corrective action.

CR M2-98-0643 will be reviewed to ensure closure of this issue.

3. **Topic:** Piping QA Classification Changes (Claude Didier)

Background:

P&ID 25203-26008 sheet 2 was revised by DCN's DM2-S-0225-96 and DM2-S-565-93 to show a piping specification change, and piping configuration changes including addition of orifices and valves installed by a modification. According to the modification documents, there is a classification change from QA Cat 1 to non-QA at the valves. In a question during the conference of 2/5/98 on

how is the classification break documented, NNECo indicated that QA category break would be identified through PMMS. We have not been able to figure out how this would be accomplished as we can not find any procedure which directs how one would go about determining a piping QA classification break that does not correspond to a pipe class break.

Questions:

a) Using this P&ID as an example, please walk us through the method (procedure) that Millstone would use to determine what quality level would control maintenance or repair work on the piping associated with the valves or orifices added by the subject DCN's.

Response: *Work Procedure WP-28001, "AWO Preparation and Work Scheduling", issued Jan 98, resolves this question. It specifies that the appropriate component is selected and looked up in PMMS to determine its classification. In the event the component is not in PMMS there is a process to put it in PMMS, or in case of emergency work it is assumed to be QA Cat 1 and the work done accordingly*

4. **Topic:** Pipe Stress Problem #25 Status. (Ken Gabel)

Background: The calculation of record for pipe stress problem # 25 appears to be a revision 14 dated 2/22/81 with two CCN's dated in '92. Calc # M2PR25-499-EM evaluated PDCR 2-029-93 and in paragraph 5.1 referenced another stress calculation to be issued later, calc # M2PR25-388-EM.

Questions:

a) Has stress analysis calculation # M2PR25-388-EM been issued?

b) If not, what further reviews/evaluations were performed or are planned?

Response: *Calculation M2PR25-388-EM was not issued, as stated in the response to Parsons RAI-667. It was clarified that revision 14 of stress problem #25 dated 2/22/81 was therefore the calc of record for the plant installations until an updated calculation was completed on 2/13/98, calc # PROBL-25-02133-B2. An RAI will be issued to request this new calc.*

5. **Topic:** Status of EWRs Included in the Tier 3 Review Sample. (Bob Steinmetz)

Background: After reviewing documentation for the EWR samples selected for the Tier 3 review, we can not determine what was the result of some of the EWRs. It may be that we selected a EWR that is in progress and has not been dispositioned. We need a status of the EWRs listed below. We have included in the list the status we were able to identify from the EWR documentation provided to our initial RAI.

a) Please identify if the EWR is currently in progress or if the EWR has been closed or dispositioned. Please identify the end result of closed or dispositioned EWRs, or if a mod number has been assigned even if it is still in progress.?

EWR Number Resultant Identifier	Latest information	Current Status	Mod # or Other Document
2-94-255	10/07/97 - approved for implementation		
2-95-054	3/24/95 - scoping date		
2-96-003	6/30/96 - disposition date		
2-96-[illegible]8	4/1/96 - scoping date		
2-96-06K	? - status unknown		
2-96-082	10/30/96 - requested response date		
2-96-092	3/25/97 - RAC meeting approved for scoping		
2-96-101	9/3/97 - RAC meeting approved for implementation		
2-97-008	11/28/97 - requested response date		
2-97-034	2/19/97 - requested response date		
2-97-037	5/9/97 - closed		
2-97-092	9/2/97 - technical support signoff		
2-97-095	? - status unknown		
2-97-139	canceled - refer to EWR 2-97-173		
2-97-173	9/2/97 - technical support signoff		

Response *EWR status information was faxed to Parsons on 3/10/98.*

6. **Topic**: Backfeed of Power from Unit 1. (Andy O'Connor)

Background: Unit 1 is currently not operating, and is not expected to operate until after the restart of Unit 2. Several Appendix R Safe Shutdown Scenarios rely upon a Backfeed of Power from Unit 1 within 4 hours of an event initiation.

Questions:

a) What contingencies have been established or are planned to assure the additional power requirements normally provided by the Backfeed from Unit 1 will be available within the required time frame, even if major modifications are underway at Unit 1?

Response: *The necessary contingencies are located in the Millstone Unit No. 2 Technical Requirements Manual , item 62 of Table 1 ARSR Equipment List.*

7. **Topic:** Disposition of NCR 293-052 (Jim Collins) [Holdover Topic from 3/5/98.]

Background: NCR 293-052 was initiated because the Control Switch Trip (CST) and Total Thrust (TT) were exceeded during VOTES testing of MOV 2-SI-651. The disposition of the NCR states that the valve vendor representative was contacted, and he stated that conditions could have caused cracking or wear to the hardface material of the backseat or the stem shoulder. The disposition further states that damage to the backseat will not cause in-operability of the valve, and that the valve is normally closed and not intentionally backseated. No mention is made in the disposition of potential cracking as mentioned by the vendor representative.

Questions:

a) Since a crack in the valve backseat material or stem shoulder could propagate to the point of valve failure, were any inspections or evaluations performed to determine if any cracking may have occurred as mentioned by the vendor representative?

b) If none were performed, why didn't the NCR provide justification for not performing any?

Response: *NNECo responded that the vendor memo stated that the only cracking that could have occurred was in the hardface material of the backseat. The vendor further stated that this type damage would not lead to valve failure. This is not clear in the NCR disposition. The memo was not attached with the Parsons' copy of the NCR and was not available for review. RAI 1176 was released on March 2, 1998, requesting the telephone memorandum. The Tier 3 review of the NCR will be completed when the memo is received.*

8. **Topic:** P&ID revision due to DCN DM2-S-0878-95 (Claude Didier) [Continuing from 2/3/98 & 2/5/98 & 3/5/98]

Background: The RBCCW P&ID 25203-26022 has been updated per the DCN DM2-S-0878-95 and 3 drain valves 2-RB-405, 2-RB-406, and 2-RB-412 have been added per a walkdown. In prior teleconferences, questions were raised regarding drawings for these valves/installations. The response from Millstone was that Millstone was not able to identify any drawing other than the P&ID. Bill Price was looking at Bechtel Spec MS-6 and M-18 to see how vents and drains were handled including seismic issues. Since drawings of the valves and its installation configuration do not exist, we are trying to understand what is the design basis for these valves and how did Millstone's CMP verify that these valves meet the design basis.

Questions:

a) Since the P&ID does not identify critical characteristics of the design and installation, what documents (e.g. specifications, procedures, calculations, instructions, purchase orders, QA inspection records etc.) specific design and installation items such as valve

materials, pipe and valve dimensions, pipe and valve configuration, type of valve, valve manufacture, weight etc.?

b) What was the design basis used for these valves by the CMP and how was it verified?

Response: *This topic was deferred to 3/12/98.*

9. **Topic:** Low Speed Stop for Aux. Feedwater Pump Turbine Governor Speed Changer. (Dale Pruitt) [Holdover Topic from 3/5/98.]

Background:

References:

1. PDCR 2-003-75, Low Speed Stop for AFW pump Turbine Governor Speed Changer
2. PMMS Database, Component M2-02-AFW-GOV-P4G
3. 10CFR50.110, XV., 1974, Non-conforming Materials, Parts, Or Components

   Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Non-conforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.
4. Commercial Grade Dedication From CDGF MP2-0148
5. Unresolved Item Report - 2672, Missing MEPL Evaluation
6. Unresolved Item Report - 2322, Auxiliary Feedwater Terry Turbine Governor EQ compliance

Plant Design Change Request 2-003-75 identified a non-conforming governor on the AFW Terry Turbine. The problem was the AFW Terry Turbine governor would jam requiring the speed control to be reworked at an unacceptable frequency. The governor installed was designed to be operated in a control air speed control system. The application was a remote electric control. As a result there was no provision for a low speed stop normally not required for the designed application. Without the stop, the governor could go to a position that jammed the control motor clutch. The vendor provided a service bulletin to modify the installed part however offered a different model for the application. The modification was canceled without an explanation documented in the canceled document.

A search of the PMMS Database did not locate a work request that addressed the condition, but the database only listed work requests back to 1985 (This is a 1975 item). It is noted that work orders reviewed since 1985 did not indicate any binding of the type described in the original problem description. Also the governor was rebuilt about 1990 and tested. However documentation of the solution of the problem and assurances that a reoccurrence was unlikely could not be located.

Questions:

a) How was this non-conforming condition resolved?

b) What is all the recorded documentation applicable to the resolution of this nonconformance / condition in accordance with Reference 3?

c) How did or does operations cope with the condition?

Response: *NNECo questioned whether this was really a non-conforming condition. And requested further discussion be continued on 3/12/98.*

10. **Topic:** Calculation 405286. (Robert Moyer) [Holdover Topic from 3/5/98.]

Background: Pipe support calculation 405286, rev 1, was performed to verify the adequacy of the support for various as-built conditions, among them the additional load from two non-safety lines. Page 9 of the calculation shows the support model and loads. It appears that the loads for the two non-safety lines were obtained from their respective support drawings, 350021 and 315153.

Questions:

a) Do the loads for the non-safety lines include seismic amplification?

Response: *The design loads from the two non-safety lines did not include seismic amplification factors. A new calc for this gang support was issued, calc #93-DES-530-D2, in which one total load including seismic was developed. NNECo does not have an established procedure for amplification factors to be applied to non-seismic design loads. No other gang supports in the CST trench were evaluated for similar safety/non-safety pipe support design loading applications. An RAI will be issued to request the referenced calculation.*

11. **Topic:** ESAS SIAS Pressurizer Pressure (P-102A, B, C, D) Setpoint (Ray Thomas) [Holdover Topic from 3/5/98.]

Background: The ESAS SIAS Pressurizer Pressure Setpoint is set at 1620 Psia ± 1.5% per the Surveillance Procedure. The setpoint in the Surveillance Procedure is OKAY since it is in accordance with the requirement of the calculation, i.e. > 1601 Psia.

Questions:

a) Please provide the documentation that was used to actually make the Setpoint at 1620 Psia ± 1.5%? (In effect, is there a 50.59 Evaluation, Modification, or some other design document that actually approved the Surveillance Procedure's setpoint of 1620 Psia versus using 1619 Psia or 1640 Psia or 1602 Psia? What is the documentation used for using 1.5% versus 1.25% or 1.35%?)

Response: *Millstone stated that the Setpoint is based on either a 50.59 Evaluation or Screening for the Surveillance Procedure or the Setpoint was an existing value. The specific value chosen above 1601Psia was likely based on some human factors, (i.e. make it easy to read a gauge) and on engineering judgment. Millstone identified Procedures DC-3 and OA-8 as the Basis for the Setpoint's Tolerance and the Basis Surveillance Procedure for the actual setpoint basis in accordance with the Setpoint Calculation. Millstone stated that the M&TE is 4 times as accurate as the instrument and therefore the setpoint/tolerance is correct. After some discussion over the 4 times more accurate assumption, a request for the actual 50.59 Evaluation or Screening was requested. Millstone stated again that they did not know if one existed.*

Response Update: *Millstone provided Parsons with a correction, stating that the OA-8 Procedure identified should have been WC-8 instead.*

12. **Topic:** Containment Pressure (P-8113, 8114, 8115, 8116) SIAS Setpoint (Ray Thomas) [Holdover Topic from 3/5/98.]

Background: The Containment Pressure SIAS Setpoint is set in the Surveillance Procedure (SP 2403D, Containment Pressure Calibration) at 3.80 Psig ± 1.5% and meets the requirements specified in the UFSAR, the Setpoint Calculation and in the Technical Specification. The ESAS SIAS Containment Pressure Setpoint is set at 3.80 Psig ± 1.5% per the Surveillance Procedure. The setpoint in the Surveillance Procedure is in accordance with the calculation's ≤ 4.80 Psig and is OKAY.

Questions:

a) Please provide the documentation that was used to actually make the Setpoint 3.80 Psig ± 1.5%? (In effect, is there a 50.59 Evaluation, Modification, or some other design document that actually approved the Surveillance Procedure's setpoint versus using 3.6 Psig or 3.78 Psig or 3.0 Psig? What is the documentation used for using 1.5% versus 1.25% or 1.35%?)

Response: *Same as response to Topic 11.*

ADMINISTRATIVE CONFERENCE NOTES
March 12, 1998

DATE: 3/12/98

PURPOSE: Administrative telephone conference with NNECo, NRC , NEAC and Parsons to discuss:

1. Anchor bolts for Tanks T48A & B
2. Fuel Cask Drop Accident
3. Steam Generator Tube Rupture Accident
4. Calculation 1K21-5
5. Follow-up to 3/3/98 Meeting
6. Low Speed Stop for Aux. Feedwater Pump Turbine Governor Speed Changer
7. P&ID revision due to DCN DM2-S-0878-95

LIST OF ATTENDEES:

NNECo	NRC	NEAC	Parsons
Joe Fougere	John Nakoski		Wayne Dobson
Fred Mattioli			Don Marks
Jim Nicholson			Dale Pruitt
Ray Crandall			Dom Ramos
John Festa			Joe Groncki
Greg Tardif			Juan Cajigas
Dave Bajumpa			Gordon Chen
Ed Foster			Terrence Mackay
			Wayne Choromanski
			Rich Glaviano
			C. Akdogan

1. **Topic:** Anchor bolts for Tanks T48A & B. (Joe Groncki)

Background: The Diesel Engine Day Tanks T48A & B are on the Safe Shutdown Equipment List and have been qualified by the MP2 A-46 SQUG Program. The qualification of the anchor bolts for these tanks is given in VECTRA Calculation MP2OR, Rev. 0, Section 5.9 (pages 130 to 148). As stated on page 134, this calculation is based on the assumption that the anchor bolts are considered cast-in-place.

Questions:

a) What documentation exists to verify that this is a correct assumption?

b) In light of the fact that these anchor bolts are not shown on the construction drawings, is it possible that they were grouted-in-place after the floor slab was poured, rather than cast-in-place before the slab was poured?

Response: *No documentation exists to verify the bolts were cast in place.*

2. **Topic:** Fuel Cask Drop Accident (Gordon Chen)

Background: Technical Specification Amendment #172 following the removal of the blocking devices to reclaim 234 fuel storage locations changed the requirement of decay time from 120 days to one year for the spent fuel to be stored within L distance from the center of the cask set-down area whenever a cask is on the refueling floor. According to the letter B14470 that requested the changes,

the cask drop accident has been reanalyzed for the radiological consequences. This was due to the changes in fuel storage capacity in the "targeted footprint area". It indicates the there are 782 fuel assemblies in the cask drop footprint area.

Questions:

a) What is the calculation number of the reanalysis for the radiological consequences following a fuel cask drop accident to support Tech. Spec. Amendment #172?

b) What is the document that provides the basis of determining the "targeted footprint area" of 782 fuel assemblies?

c) What is the value of "L" distance and the basis of this value?

Response: *Deferred to 3/17/98.*

3. **Topic:** Steam Generator Tube Rupture Accident(Juan Cajigas)

Background: The following radiological dose calculations were provided for the Tier 2 review of the Steam Generator Tube Rupture Accident (SGTRA):

- Calculation xx-xxx-61RA, Revision 0, "Radiological Consequences Of A Steam Generator Tube Rupture At Millstone II", Approved 3/9/83.
- Calculation xx-xxx-61RA, Revision 1, "Radiological Consequences Of A Steam Generator Tube Rupture At Millstone II", Approved 4/29/83.
- Calculation xx-xxx-61RA, Revision 2, "Radiological Consequences Of A Steam Generator Tube Rupture At Millstone II", Approved 5/20/84.
  Unnumbered radiological dose calculation entitled "MP-2 Radiological Consequences Of A Steam Generator Tube Rupture At Millstone II", Approved 8/31/94 was also provided. The dose results currently contained in the MP-2 FSAR are obtained from this analysis.

In order to identify system design inputs used in the SGTRA dose analysis, all four calculations were reviewed. Results of this indicate that:

- To evaluate the radiological consequences of this event, two separate analysis are performed. A hydraulic systems analysis is first performed by the NUSCo Safety Analysis Branch using the RETRAN Computer Code to evaluate mass releases for this event. This analysis evaluates system hydraulic response to obtain mass flow rates and a timing sequence of events for the accident. Results of this analysis are then input into the SGTRA computer code to evaluate activity released to the environment and the resulting radiological dose consequences. Radiological dose calculations for the SGTRA are listed above.

- The SGTRA radiological dose calculations only identify radiological assumptions (e.g. fluid activity concentrations, partition factors) and flow rates from the RETRAN analyses. Design inputs such as trip setpoint pressures and valve actuation setpoints (open and re-seat pressures) are not identified in the radiological calculations. These parameters are listed in FSAR 14.6.3. In order to identify all of the SGTRA system design inputs, the Steam Generator Tube Rupture Accident RETRAN analyses must also be reviewed.

- The radiological dose calculations do not always identify the system response scenarios for the radiological cases evaluated. Revision 2 of xx-xxx-61RA evaluates three new radiological cases referencing the RETRAN analysis, but does not clearly explain the basis

for these new cases. The system response scenario from one of these cases is the one documented in the FSAR. In order to determine the basis for the radiological case results presented in the FSAR, the RETRAN analyses must also be reviewed in order to identify the system response scenarios.

- The SGTRA dose results reported in FSAR Section 14.6.3 are evaluated in an un-numbered radiological dose calculation (See calculation number 4 identified above). It is not clear if this calculation is a design basis MP-2 analysis since it is un-numbered. This calculation uses base dose inputs from calculation xx-xxx-61RA, Revision 0 (1983) which was superseded by calculation xx-xxx-61RA, Revision 1, and process data from a 1992 RETRAN analysis which appears inconsistent with the Rev. 0 SGTRA calculation. It also uses input from calculation xx-xxx-61RA, Revision 2 and references "updated" doses from a 1992 memo which was issued years after the previous calculation (xx-xxx-61RA, Rev.2 , 1984).

Questions: Please clarify the following:

a) Which radiological calculation(s) provide the basis for the analysis of record?

b) In the event that the un-numbered calculation above (4) provides this basis, why does it references calculations that have been superseded? In addition, why is process data (steam flows, break flows) from W2-517-1015-RE Rev.1 (1992) used in combination with calculated dose data from xx-xxx-61RA Rev.0 (1983) which appears to use different process data?

c) Which RETRAN calculations/analyses are part of the SGTRA analysis of record?

Response: *Deferred to 3/17/98.*

4. **Topic:** Calculation 1K21-5. (Dom Ramos)

Background: Revision 1 to calculation 1K21-5 approved December 1, 1997 deleted pages 9 to 20 of 20. The deleted pages were replaced by calculation 97EBF-02000-M2, Rev 0. A review of the remaining pages indicated:

- On page 5 that figures 1 and 2 shown on deleted pages 10 and 12, respectively, are needed by the remaining pages.
- Figure 6.15.3-1 on page 8 is not consistent with the FSAR Figure 6.7-1.
- The remaining pages were not updated in accordance with UIR 971(AR 9718975-02) and UIR 3088(AR 97018975-02).

Questions:

a) What is the purpose for making 1K21-5 Rev 1 an active calculation?

Response: *The remaining active pages of calculation 1K21-5 will be superseded by a new calculation 97CMP-01896 Rev 0 in about a week. Calculations 97EBF-02000-M2, Rev 0 together with the new calculation will completely supersede 1K21-5.*

5. **Topic:** Follow-up to 3/3/98 Meeting - (NNECo) [Holdover Topic from 3/10/98.]

NNECo to provide Parsons and S&L with information on the following topics:

a) Minor Modifications
   - Safety Evaluation Screening
   - Status of S&L DR - 6

b) Setpoint Control
c) PI 20 deferment criteria
d) Millstone approach on correcting labeling discrepancies
e) S&L DR 1007

Response: *Deferred to 3/17/98.*

6. **Topic:** Low Speed Stop for Aux. Feedwater Pump Turbine Governor Speed Changer. (Dale Pruitt) [Holdover Topic from 3/5/98 and 3/10/98.]

Background:

References:

1. PDCR 2-003-75, Low Speed Stop for AFW pump Turbine Governor Speed Changer
2. PMMS Database, Component M2-02-AFW-GOV-P4G
3. 10CFR50.110, XV., 1974, Non-conforming Materials, Parts, Or Components

   Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Non-conforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.
4. Commercial Grade Dedication From CDGF MP2-0148
5. Unresolved Item Report - 2672, Missing MEPL Evaluation
6. Unresolved Item Report - 2322, Auxiliary Feedwater Terry Turbine Governor EQ compliance

Plant Design Change Request 2-003-75 identified a non-conforming governor on the AFW Terry Turbine. The problem was the AFW Terry Turbine governor would jam requiring the speed control to be reworked at an unacceptable frequency. The governor installed was designed to be operated in a control air speed control system. The application was a remote electric control. As a result there was no provision for a low speed stop normally not required for the designed application. Without the stop, the governor could go to a position that jammed the control motor clutch. The vendor provided a service bulletin to modify the installed part however offered a different model for the application. The modification was canceled without an explanation documented in the canceled document.

A search of the PMMS Database did not locate a work request that addressed the condition, but the database only listed work requests back to 1985 (This is a 1975 item). It is noted that work orders reviewed since 1985 did not indicate any binding of the type described in the original problem description. Also the governor was rebuilt about 1990 and tested. However documentation of the solution of the problem and assurances that a reoccurrence was unlikely could not be located.

Questions:

a) How was this non-conforming condition resolved?

Response: *A search was conducted by the Terry turbine engineer of the maintenance work documents and various other documents. No documented history of a low speed stop installation or of a problem with the Terry turbine jamming could be located.*

b) What is all the recorded documentation applicable to the resolution of this nonconformance / condition in accordance with Reference 3?

Response: *A search was conducted by the Terry turbine engineer of the maintenance work documents and various other documents. No documented history of a low speed stop installation or of a problem with the Terry turbine jamming could be located.*

c) How did or does operations cope with the condition?

Response: *No known extra consideration is required by Operations.*

Specification M-36 requires an electrical environment for the governor. The governor apparently was modified to meet the spec which only required over-speed protection. Per operating OP 2322, the minimum speed is 1,400 rpm. The jamming point of about 100 rpm was so far away from the low limit that a low speed stop was of no concern. The position can be defended that there was no nonconformance and the governor is as per design and satisfactory.

7. **Topic:** P&ID revision due to DCN DM2-S-0878-95 (Claude Didier) [Continuing from 2/3/98 & 2/5/98 & 3/5/98 & 3/10/98]

Background: The RBCCW P&ID 25203-26022 has been updated per the DCN DM2-S-0878-95 and 3 drain valves: 2-RB-405, 2-RB-406, and 2-RB-412 have been added per a walkdown. In prior teleconferences, questions were raised regarding drawings for these valves/installations. The response from Millstone was that Millstone was not able to identify any drawing other than the P&ID. Bill Price was looking at Bechtel Spec MS-6 and M-18 to see how vents and drains were handled including seismic issues. Since drawings of the valves and its installation configuration do not exist, we are trying to understand what is the design basis for these valves and how did Millstone's CMP verify that these valves meet the design basis.

Questions:

a) Since the P&ID does not identify critical characteristics of the design and installation, what documents (e.g. specifications, procedures, calculations, instructions, purchase orders, QA inspection records etc.) specific design and installation items such as valve

materials, pipe and valve dimensions, pipe and valve configuration, type of valve, valve manufacture, weight etc.?

Response: *For the drain valves in question, the information is provided by a series of drawing notes and construction specifications. Drawing 25203-26001 sheet 1 of 3 identifies notes that are applicable to these valves. These notes reference specifications MS-1, MS-3, MS-7 etc. For example, MS-3 indicates that for HDD piping, (2" and under) class 19 or 131 valves are to be used. MS-7 describes the valve classes, (i.e. type of valve, material, etc.). MS-6 contains a listing of configurations with configuration figures.*

b) What was the design basis used for these valves by the CMP and how was it verified?

Response: *CMP did not verify the design basis of these valves because the valves were part of original construction, they were not changed via a modification, and the DCN (which only added information to the drawings) was closed at the time of the CMP review.*