



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 31 1985

Docket Nos.: 50-213
and 50-245

Mr. John F. Opeka, Senior Vice President
Nuclear Engineering and Operations
Northeast Utilities
Post Office Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Opeka:

SUBJECT: INTEGRATED SAFETY ASSESSMENT PROGRAM

In your letter dated May 17, 1985, Northeast Utilities outlined a proposal for the conduct of the Integrated Safety Assessment Program (ISAP) for the Haddam Neck and Millstone Unit 1 facilities. Your proposal generally described the procedures for the conduct of this effort and specifically identified (1) those projects which would be conducted independent of ISAP, including plant modifications which will be implemented during the next refueling outage for each facility and ongoing ("baseload") engineering studies, and (2) those licensing matters and NNECO/CYAPCO plant improvement projects which should be evaluated in an integrated assessment for each facility. Your proposal also described the criteria you would use to evaluate each of the issues in the integrated assessment and subsequently prioritize the corrective action resulting from the integrated assessment.

The NRC has allocated resources for the conduct of ISAP for Haddam Neck and Millstone Unit 1. Based on the availability of the probabilistic safety analysis (PSA) results, and in consideration of the refueling outage schedules, we have scheduled completion of the integrated assessment (i.e., draft report) for Millstone Unit 1 in September 1985, and Haddam Neck in September 1986. We believe that these schedules are achievable and will ensure efficient use of both NRC and NNECO/CYAPCO resources.

The staff has concluded that the projects for each facility listed in Enclosure 1 to this letter should be conducted independent of ISAP. These projects include (1) plant modifications and procedural changes that are ready for implementation during the next scheduled refueling outage or before the scheduled completion of ISAP and/or are significant safety improvements that should not be delayed, and (2) ongoing engineering studies and plant modification design efforts that have a well defined objective and would not likely be enhanced by an integrated assessment.

Enclosure 2 to this letter identifies those projects for each facility that we believe should be evaluated in ISAP. These projects have been numbered for ease of reference and accountability. The first group of projects includes all current licensing actions and plant activities, and also includes pending and potential licensing requirements. The second group includes NNECO/CYAPCO initiatives and plant improvements. We have added to the projects you proposed: (1) the pending licensing actions from NUREG-0748 for which the staff's review is not yet complete; (2) the NNECO/CYAPCO ongoing engineering studies ("baseload") that we believe should be evaluated, at least in a broad sense, for their potential contribution to plant safety; and (3) those Unresolved Safety Issues and generic issues, derived from the high-priority issues in NUREG-0933, that we believe can be substantially addressed on a plant-specific basis in concert with the PSA for each facility. These projects comprise the "topics" for evaluation under ISAP. The staff considers the scope of review represented by these topics, in conjunction with the PSA evaluations and updated operating experience evaluations, to be sufficiently comprehensive, such that the results of the integrated assessment will provide effective integrated schedules and the basis for future regulatory actions.

The tables presented in Enclosure 2 identify those topics for which you identified specific deterministic or probabilistic evaluations to support the integrated assessment. A number of your proposed topics identify specific plant improvements for the purpose of prioritization; however, it would appear that more effective or efficient alternatives may evolve from the integrated assessment by evaluating the original motivation for these plant improvements. In order to ensure that the issues to be addressed in the integrated assessment are clearly defined and understood, we request that evaluations be prepared in the following formats:

1. All of the topics for which safety analyses have already been submitted to the NRC and no further NNECO/CYAPCO analysis is considered necessary should be clearly identified. While we have identified some references of this nature in your May 17, 1985 submittal, we believe it would be useful for you to summarize these topics in tabular form, noting the dates of your submittals and any related staff evaluations. We are currently assembling this material and will use your tabular summary to ensure that all of the pertinent documentation has been identified.
2. All of the topics for which NNECO/CYAPCO safety analysis are or will be performed should be submitted in the format specified in your May 17, 1985 letter. For Haddam Neck, we request that you provide the submittal schedules so that we may plan our review; all of these analyses should be submitted by about June 1986.
3. For all of the other topics, which consist primarily of the NNECO/CYAPCO plant improvement projects, we request that you submit a concise summary of each topic which identifies the fundamental concern being addressed, advantages and disadvantages of any proposed corrective action relative to the attributes described in your May 17, 1985 letter, and plant design features pertinent to the issue. These summaries may be submitted individually or collectively.

4. For each of the topics that will be addressed with a specific PSA evaluation, a summary of the PSA finding should be submitted which includes:
(1) the issues being addressed, (2) any corrective actions considered,
(3) the affected systems, (4) a description of the analysis performed,
(5) the associated fault tree(s), (6) the analysis assumptions, and
(7) the conclusion. These summaries may also be submitted individually or collectively.

The staff will review these submittals and issue safety evaluation reports which will identify the specific issues to be addressed in the integrated assessment.

The topics identified in Enclosure 2 include all pending licensing actions and ongoing engineering studies, some of which are nearly complete. Consequently, should you identify topics during the course of the review that are resolved or change in scope, please notify us.

Similarly, because of the ISAP review schedule for Haddam Neck relative to the plant's refueling outage schedules, it is apparent that a substantial amount of engineering and procurement for the Spring 1987 outage will have to be accomplished before the integrated assessment is complete. We encourage you to schedule the Haddam Neck topic analyses so that significant safety improvements can be developed for implementation in the Spring 1987 outage. As you identify such implementation plans, you should notify us so the scope of the related topic reviews may be adjusted accordingly.

Because of the schedule and resource constraints, the staff's review of the PSA for each facility will be limited to an audit of your analyses. The staff and consultants assigned to this effort are currently reviewing the Millstone Unit 1 IREP results and the material presented in a meeting held on June 3, 1985, to prepare for this audit. The objectives of the staff's review will be to judge whether (1) the appropriate contributors to risk have been identified for consideration in the integrated assessment, and (2) the conclusions presented for each topic analysis are appropriate. In view of the schedule constraints for Millstone Unit 1, we request that the topic-specific analyses be submitted as soon as practical. We will organize the Haddam Neck review later in the year when the analyses for that facility are nearing completion.

With respect to the attributes you have proposed as prioritization criteria, we do not intend to review all of these criteria and the ranking procedures in detail. Rather, we will evaluate your assessment of the impacts on public health and safety for each topic and subsequently judge the overall integrated implementation schedules proposed based on those conclusions.

As a result of the staff's screening review of topics to be addressed in ISAP, we note that there are a few issues that may require exemptions or license amendments to defer action until ISAP is complete. In accordance with the required procedural practices, you should separately request the necessary exemptions or license amendments to defer these requirements. We will act on such requests promptly. Your requests for deferrals or exemptions should

July 31, 1985

John F. Opeka

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clearly state the justification for continued plant operation and compensatory plant design features which form the basis by which you have concluded that the issue involved may be deferred until a more effective resolution and implementation schedule can be developed from the integrated assessment. For example, your May 17, 1985 submittal indicates that you intend to complete all of the inadequate core cooling instrumentation (ICCI) for Haddam Neck during the 1986 refueling outage; however, you have proposed a concurrent evaluation of the need for a heated junction thermocouple system (Topic 1.13). If you decide to defer completion of ICCI, you should notify the staff promptly and include a detailed explanation of the technical basis by which you have concluded that issue can be deferred.

New issues that arise during the course of this review will be evaluated for inclusion in ISAP in the following manner: Issues raised by the staff on a plant-specific basis will be reviewed for safety significance. If prompt action is deemed necessary, we will request such action in accordance with 10 CFR 50.54(f). Otherwise, we will forward the issue for your evaluation and note the assigned ISAP topic number. Issues raised generically, including new regulations, generic letters and IE Bulletin follow-up actions should be evaluated by NNECO/CYAPCO and, if you conclude the matter should be addressed in ISAP, a deferral should be formally requested. We will respond to such requests promptly and, if they involve exemptions, the deferral request will be evaluated in accordance with 10 CFR 50.12, as described above.

This letter concludes the staff's screening review of topics to be addressed in ISAP for Haddam Neck and Millstone Unit 1. In order for us to expeditiously proceed with this effort on Millstone 1, we request that you promptly provide the analyses discussed above. For Haddam Neck, we request that you provide submittal schedules and identify where specific probabilistic analyses will be conducted, based on your preliminary planning. Should you have any questions concerning this matter, please contact Christopher Grimes, (301) 492-8414.

Original signed by: Hugh Thompson

Hugh L. Thompson, Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:
As stated

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Central File
HThompson/FMiraglia
CGrimes

TSpeis
JShea
JZwolinski
ATHadani

PDR
MBoyle
FRowsome
FAkstulewicz

LPDR

cc: See next page

*PREVIOUS CONCURRENCE SEE DATE

SEPBDL*	SEPBDL*	ORB#5:DL*	ORB#5:DL*	ORB#5:DL*
MBoyle:mn	CGrimes	FAkstulewicz	JShea	JZwolinski
7/01/85	7/01/85	7/08/85	7/03/85	7/03/85
AD:SA:DL*	RRAB:DST*	RRAB:DST*	D:DST*	REGION I*
DCrutchfield	ATHadani	FRowsome	TSpeis	EMcCabe
7/08/85	7/19/85	7/19/85	7/19/85	7/03/85

D:DL
HThompson
7/30/85

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***PREVIOUS CONCURRENCE SEE DATE**

SEP8:DL*	SEP8:DL*	ORB#5:DL*	ORB#5:DL*	ORB#5:DL*
MBoyle:mn	CGrimes	FAkstulewicz	JShea	JZwolinski
7/01/85	7/01/85	7/08/85	7/03/85	7/03/85
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This letter concludes the staff's screening review of topics to be addressed in ISAP for Haddam Neck and Millstone Unit 1. In order for us to expeditiously proceed with this effort, we request that you promptly provide the schedules and analyses discussed above. In particular, we request that, based on the topic sets as set forth in this letter, you identify the format for the deterministic analysis and whether a specific analysis is intended for each of the topics within ten days following your receipt of this letter. Should you have any questions concerning this matter, please contact Christopher Grimes, Chief of the Integrated Safety Assessment Branch on (301) 492-8414.

Hugh L. Thompson, Jr., Director
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Office of Nuclear Reactor Regulation

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REGION I*
EMcCabe
7/3/85

AT
Jan
Concur w/comment (memo to Thompson from Speis)

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Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc: See page 6

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7/1/85

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TSpeis
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REGION I
E.McCabe*
7/3/85

D:DL
HThompson
7/ /85

D:NRR
HDenton
7/ /85

* concurred by phone for Region I

Mr. John F. Opeka
Connecticut Yankee Atomic Power Company
Northeast Nuclear Energy Company

cc
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Regional Administrator
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Resident Inspector
c/o U.S. NPC
Millstone Nuclear Power Station
P. O. Box 811
Niantic, Connecticut 06357

First Selectman of the Town
of Waterford
Hall of Records
200 Boston Post Road
Waterford, Connecticut 06385

Haddam Neck Plant &
Millstone Nuclear Power Station,
Unit No. 1

Kevin McCarthy, Director
Radiation Control Unit
Department of Environmental
Protection
State Office Building
Hartford, Connecticut 06106

Board of Selectmen
Town Hall
Haddam, Connecticut 06103

Superintendent
Haddam Neck Plant
RFD #1
Post Office Box 127E
East Hampton, Connecticut 06424

Resident Inspector
Haddam Neck Plant
c/o U.S. NPC
East Haddam Post Office
East Haddam, Connecticut 06423

COMPLETION OR ONGOING PROJECTS
INDEPENDENT OF ISAPHaddam Neck

- 1 Emergency Diesel Generator Trip and Lockout
- 2 Process Computer UPS Installation
- 3 Inadequate Core Cooling Instrumentation
- 4 EQ of Electrical Equipment
- 5 RCS Loop RTD Replacements
- 6 Seismic Qualification of Safety Related Piping
- 7 Plant Paging System Upgrade
- 8 MOV Thermal Overload Modifications
- 9 Appendix R Modifications
- 10 Refuel Cavity Drain Piping Seismic Upgrade
- 11 Reactor Cavity Seal Ring Modifications
- 12 Replace Main Control Board Cat. 1E Relays
- 13 Feedwater Heater Modification
- 14 Steam Generator Wet Layup Recirculation
- 15 Review of Existing Control Air Systems
- 16 Doc. and Coord. of Protective Relay and Breaker
- 17 Replace Main Generator Neutral Grounding Trans.
- 18 Rev. and Upgrade Eval. for Diesel Air Start System
- 19 Waterbox "A" Retubing
- 20 Steam Generator Manway Cover Handling Device
- 21 Limitorque Motor Operated Valves-Lubrication
- 22 Elevated Well Water Temperature
- 23 RCCA Changeout Tool
- 24 Emergency Plan Rad. Assessment Equipment
- 25 Microwave System
- 26 Conversion to Standard Technical Specifications
- 27 Plant Design Change Task Group Support
- 28* Plant Training Simulator
- 29* Probabilistic Safety Study
- 30* Unit Availability Model
- 31* Computer Analysis for Generation of Heatup/Cooldown Curves

Millstone 1

- 1 Seismic Qualification of Safety Related Piping
- 2 Primary Containment Leak Rate Monitoring
- 3 Undervoltage Protection-Emergency Bus
- 4 Replacement of Motor Operated Valves
- 5 Floodgate Mods. and Installation of Scuppers
- 6 Refueling Cavity Seal Evaluation
- 7 Records Vault Temperature and Humidity Control
- 8 Process Computer UPS Installation
- 9 MS Relief Valve Vacuum Breaker Load Qualification
- 10 Station Battery "A" Replacement
- 11 Rev. and Upgrade Eval. for Diesel Air Start System
- 12 Gas Turbine Generator Elec. Equipment Protection
- 13 Auxiliary Equipment System Oscillograph
- 14 Supervisory and Events Recorder Systems
- 15 Replace Main Generator Neutral Grounding Trans.
- 16 Limitorque Motor Operated Valves:Lubrication
- 17 460 Volt Motor Soft Start Capability
- 18 IGSCC Countermeasures
- 19 Circulating Water Piping Thrust Block Repairs
- 20 Gas Turbine Generator Battery Replacement
- 21 Solid Radwaste Building Ventilation and Roof Mods
- 22 Spent Fuel Pool Cleanup
- 23 Voltage Regulator, Instrument Trans Replacements
- 24 House Heating Boiler Stack
- 25 Procurement of Nuclear Grade Material/Service Sensitive Lines
- 26* Plant Training Simulator
- 27* Probabilistic Safety Study
- 28* Unit Availability Model
- 29* Roof Replacement
- 30 Emergency Gas Turbine Generator Vibration Switches

* Ongoing activities that represent a level of effort that must be maintained.

Haddam Neck ISAP Issues

ISAP #	Title - NRC Issues to be Included in ISAP	Source	Cross Reference	Action Letters	Sum	PSA	Notes
1.01	Switchgear Room Cooling Modifications	SEP IX-5	TIA 83-89	04/05/84D	Y		
1.02	High/Low Pressure Valve Interlocks	SEP V-11.A	TIA 83-89	04/05/84D	Y		
1.03	Containment Penetration Evaluations	SEP VI-4	50935;0660:II.E.4.3		Y		1
1.04	Seismic Qualification of Safety Related Piping	SEP III-6	51937,51939;USI A-40	04/05/84D			3
1.05	Seismic Structural Modifications	SEP III-6	51937,51939;USI A-40	04/05/84D			
1.06	Wind and Tornado Loadings/Tornado Missiles	SEP III-2&4.A	51938,51939		Y		
1.07	Vital Bus Feed Realignment Modifications	SEP VI-7.C.1	51934;TIA 83-89				
1.08	Seismic Modifications to Reactor Coolant System	SEP III-6	51937,51939;USI A-40	04/05/84D			
1.09	Design Codes, Design Criteria, Load Combinations	SEP III-7.B	51939		Y		
1.10	Torque Switch Modifications	SEP III-10.A			Y		
1.11	PAB Ventilation System Modifications	SEP IX-5			Y		
1.12	Control Room Habitability	0737:II.D.3.4	56320	04/05/84D	Y		1
1.13	Inadequate Core Cooling Instrumentation	0737:II.F.2	45138		Y		4
1.14	Appendix R Modifications	50.48					
1.15	FDSA Update	50.71		04/11/85E			1
1.16	Anticipated Transients Without Scram	ATWS	USI A-9				1
1.17	Replacement of Motor Operated Valves	50.49	42521,52074;USI A-24	04/05/84D;03/28/85E			1,5
1.18	RCP Seal Cooling Modifications	0737:II.K.3.25	61-23				
1.19	Control Room Design Review	0737:Suppl 1	56128,51165				
1.20	Safety Parameter Display System	0737:Suppl 1	51245				
1.21	RG 1.97 Instrumentation	0737:Suppl 1	51095,45949,etc				
1.22	Emergency Response Facilities Instrumentation	0737:Suppl 1	51095				
1.23	Post-Accident Hydrogen Monitor (RG 1.97)	0737:Suppl 1	47745,49852;USI A-48		Y		
1.24	TS Surveillance for Hydraulic Snubbers	MPA B-17	08465				2
1.25	TS Surveillance for Mechanical Snubbers	MPA B-22	08469				2
1.26	RV and SV Testing	MPA F-14	44585				
1.27	Compliance with 50.46 (ECCS)	0737:II.K.3.31	48169;MPA F-58				
1.28	RCP Trip	MPA B-01	49667				
1.29	Flooding Evaluation	SEP III-3.C	51932				
1.30	RPS Isolation	SEP	51933				
1.31	Pipe Breaks	SEP	51936				
1.32	Item 2.1-Equipment Classification/Vendor Inter.	Salem ATWS	52843				
1.33	Items 3.1.1&2-Post Maintenance Testing	Salem ATWS	52924				
1.34	Item 3.1.3-Post Maintenance Testing TS Changes	Salem ATWS	53005				
1.35	Reactor Trip System Reliability-Vendor	Salem ATWS	53073				
1.36	Item 2.2-Equip. Classification/Vendor Interface	Salem ATWS	53677				
1.37	Items 3.2.1&2-Post Mainten. Testing Procedures	Salem ATWS	53760				
1.38	Item 3.2.3-Post Maintenance Testing Changes to TS	Salem ATWS	53843				
1.39	Item 4.2.3&4-Prev. Mainten. Proc. for Rx Trip	Salem ATWS	53913				
1.40	Items 4.5.2&3-Rx Trip System Functional Testing	Salem ATWS	53987				
1.41	Item 4.5.1-Reactor System Function Testing	Salem ATWS	54070				
1.42	RCS Vents TS	0737:	54393				
1.43	TS from 6L 83-36 & 83-37	MPA B-83	54538				
1.44	Diesel Generator Reliability	MPA D-19	55864				
1.45	ISI Update to 1980 Code		56802				
1.46	IST for Diesel Generator Auxiliaries		56917				
1.47	Reliability Engineering	NUREG-0933	0660:II.C.2				
1.48	Seismic Qualification of Equipment	NUREG-0933	USI A-46				
1.49	Steam Generator Tube Integrity	NUREG-0933	USI A-3				
1.50	Fracture Toughness of Supports	NUREG-0933	USI A-12				

Haddam Neck ISAP Issues

ISAP #	Title - MRC Issues to be Included in ISAP	Source	Cross Reference	Action Letters	Sum PSA Notes
1.51	Systems Interactions	NUREG-0933	USI A-17		
1.52	Pressure Transient Protection	NUREG-0933	USI A-26		
1.53	Containment Emergency Sump Performance	NUREG-0933	USI A-43		
1.54	Safety Implications of Control Systems	NUREG-0933	USI A-47		
1.55	Radiation Protection Plans	NUREG-0933	0660:II.D.3.1		
1.56	Bolting Degradation	NUREG-0933	61-29		
1.57	Flooding of Safety Equipment by Backflow	NUREG-0933	61-77		
1.58	Steam Binding of Auxiliary Feed Pumps	NUREG-0933	61-93		

ISAP #	Title - NU Issues to be Included in ISAP	Source	Cross Reference	Action Letters	Sum PSA Notes
2.01	Secondary Side Chemistry Monitoring	NU	MPA A-3	6L 85-02	Y
2.02	DWST Oxygen Reduction	NU	MPA A-3	6L 85-02	Y
2.03	Additional Atmospheric Steam Dump	NU			
2.04	Modernize Reactor Protection & Control Systems	NU			
2.05	Process Computer Replacement	NU	ISAP 1.20;51245		
2.06	Eval. of RCS Loop Iso. Valves to Mitigate SGT	NU	USI A-3; ISAP 2.01,2,3		
2.07	Auxiliary Pressurizer Spray Nozzle	NU			
2.08	Loss of DC Power	NU	USI A-44; TAP A-30, B-56		
2.09	RCP Vibration Monitoring System Upgrade	NU			
2.10	Administration Building Upgrade	NU			
2.11	Main Steam System Evaluation	NU			
2.12	Turbine-Generator Trip Logic	NU	USI A-44		

Notes:

1. An exemption or license amendment may be required.
2. May be resolved by implementation of the Standard Technical Specifications.
3. To date 180 of the approximately 450 pipe racks and supports have been modified. The licensee intends to modify 8 pipe racks and 90 pipe supports inside containment and 31 pipe supports in the primary auxiliary building during then 1986 refueling outage. The remaining work is to be included in ISAP.
4. The licensee intends to implement all of the ICCI modifications during then 1986 refueling outage unless a more effective alternative for the heated-junction thermocouple can be developed from the PSA.
5. The licensee plans to complete all of the environmental qualification of electrical equipment according to the 10CFR50.49 schedule requirements, except for the motor operators for the 14 safety related MOVs. Before these motor operators can be installed, their effect on other ongoing projects, such as the seismic analyses, need to be evaluated.

Millstone 1 ISAP Issues

ISAP #	Title - NRC Issues to be included in ISAP	Source	Cross Reference	Action Letters	Sum	PSA	Notes
1.01	Gas Turbine Generator Start Logic Modifications	SEP VIII-2	USI A-44;MPA D-19	04/05/84D	Y	A	
1.02	Tornado Missile Protection	SEP III-4.A		04/05/84D	Y	A	
1.03	Containment Isolation-Appendix A Modifications	SEP VI-4					1
1.04	RWCU System Pressure Interlock	SEP V-11.A	49380	04/05/84D	Y	A	
1.05	Ventilation System Modifications	SEP IX-5			Y	A	
1.06	Seismic Qualification of Safety Related Piping	IEB 79-02&-14	49379;IR 85-04	04/05/84D	Y	B	2
1.07	Control Room Design Review	0737:Suppl 1	51176,56138				
1.08	Safety Parameter Display System	0737:Suppl 1	51256;ISAP 2.03				
1.09	RG 1.97 Instrumentation	0737:Suppl 1	51106;USI A-9		Y		
1.10	Emergency Response Facilities Instrumentation	0737:Suppl 1	51106;USI A-9				
1.11	Post Accident Hydrogen Monitor	0737:Suppl 1	47754;USI A-48		Y		
1.12	Control Room Habitability	0737:III.D.3.4	56319	04/05/84D		B	1
1.13	BWR Vessel Water Level Instrumentation	0737:II.F.2		03/26/85		B	
1.14	Appendix J Modifications	10CFR50			Y		1
1.15	FSAR Update	50.71		04/11/85E;03/28/85E			1
1.16	Appendix R	50.48	48664		Y		1
	.1 MP1/MP2 Backfeed					A	
	.2 Modify CRD Pumps					B	
	.3 Alternative Cooling for Shutdown Cooling					A	
	.4 Power Cold Shutdown Equipment					B	
1.17	Replacement of Motor Operated Valves	50.49	42523;USI A-24	04/05/84D		B	1,3
1.18	ATWS	50.62	56840			A	
1.19	Integrated Structural Analysis	SEP	49376				
1.20	MOV Interlocks	SEP III-10.A	49380				
1.21	Fault Transfers	SEP VI-7.C.1	49384			A	
1.22	Electrical Isolation	SEP VII-1.A	49385				
1.23	Grid Separation Procedures	SEP VIII-1.A	49386				
1.24	Emergency Power	SEP VIII-2	49387				
1.25	Degraded Grid Voltage Procedures		51702				
1.26	Item 2.1-Equipment Classification/Vendor Inter.	Salem ATWS	52854				
1.27	Items 3.1.1&.2-Post Maintenance Testing	Salem ATWS	52935				
1.28	Item 3.1.3-Post Maintenance Testing TS Changes	Salem ATWS	53016				
1.29	Response to GL 81-34	MPA B-65	53445;ISAP 2.23				
1.30	Item 1.2-Post Trip Review Data and Information	Salem ATWS	53606				
1.31	Item 2.2-Equipment Classification/Vendor Inter.	Salem ATWS	53689				
1.32	Items 3.2.1&.2-Post Maint. Testing Procedures	Salem ATWS	53772				
1.33	Item 3.2.3-Post Maintenance Testing TS Changes	Salem ATWS	53855				
1.34	Items 4.5.2&.3-Reactor Trip System Testing	Salem ATWS	53999				
1.35	Item 4.5.1-Reactor System Functional Testing	Salem ATWS	54082				
1.36	TS Covered by GL 83-36	MPA B-83	54545				
1.37	TS Affected by 50.72 and .73 (GL 83-43)	MPA A-18	55722				
1.38	Expand QA List	NUREG-0933	0660:I.F.1				
1.39	Radiation Protection Plans	NUREG-0933	0660:III.D.3.1				
1.40	Bolting Degradation or Failure	NUREG-0933	61-29				
1.41	Flooding of Compartments by Backflow	NUREG-0933	61-77				
1.42	MSL Leakage Control Systems	NUREG-0933	TAP C-08				
1.43	Water Hammer	NUREG-0933	USI A-1				
1.44	Asymmetric Blowdown Loads on Reactor Systems	NUREG-0933	USI A-2				
1.45	Systems Interaction	NUREG-0933	USI A-17				
1.46	Determination of SRV Pool Dynamic Loads	NUREG-0933	USI A-39				
1.47	Containment Emergency Sump Performance	NUREG-0933	USI A-43				
1.48	Safety Factor for Penetration X-10A		49290				
1.49	Reactor Vessel Surveillance Program	50 App. G & H	57454				

Millstone 1 ISAP Issues

ISAP #	Title - NU Issues to be included in ISAP	Source	Cross Reference	Action Letters	Sum	PSA	Notes
2.01	LPCI Remotely Operated Valve 1-LP-50A&B	NU					B
2.02	Drywell Humidity Instrumentation	NU					
2.03	Process Computer Replacement	NU	ISAP 1.08				
2.04	High Steam Flow Setpoint Increase	NU					A
2.05	Hydrogen Water Chemistry Study	NU					
2.06	Condenser Retube	NU					A
2.07	Sodium Hypochlorite System	NU					C
2.08	Extraction Steam Piping	NU	61-68				A
2.09	Upgrading of Piping and Instrumentation Diagrams	NU					
2.10	Drywell Ventilation System	NU					
2.11	Stud Tensioners	NU					
2.12	Reactor Vessel Head Stand Relocation	NU					
2.13	Turbine Water Induction Modifications	NU					
2.14	Evaluation and Implementation of NUREG-0577	NU	USI A-12			Y	
2.15	Torque Switch Evaluation for MOVs	NU					
2.16	Reactor Protection Trip System	NU					
2.17	4.16kV, 480V & 125Vdc Plant Distribution Prot.	NU	USI A-44				
2.18	Spent Fuel Pool Storage Racks/Transportation Cask	NU					
2.19	DC System Review	NU	USI A-44; TAP A-30				
2.20	RWCU System Isolation Setpoint Reduction	NU					
2.21	480V Load Center Repl. of Oil Filled Breaker	NU				Y	
2.22	Control Rod Drive System Water Hammer Analysis	NU				Y	
2.23	Instrument, Service and Breathing Air Imprve	NU				Y	
2.24	Offsite Power Systems	NU				Y	
2.25	Drywell Temperature Monitoring System Upgrade	NU					
2.26	Reliability Equipment	NU					
2.27	Spare Recirculation Pump Motor	NU					
2.28	Long Term Cooling Study	NU	USI A-45; PSS				A
2.29	FNCI Assessment Study	NU	USI A-45				
2.30	MSIV Closure Test Frequency	NU					A
2.31	LPCI Lube Oil Cooler Test Frequency	NU					A

Notes:

1. An exemption or license amendment may be required.
2. To date 700 of the approximately 1074 identified modifications have been made. The licensee intends to modify 109 pipe supports before and during the 1985 refueling outage. The remaining work is to be included in ISAP.
3. The licensee plans to complete all of the environmental qualification of electrical equipment according to the 10CFR50.49 schedule requirements, except for the motor operators for the 28 safety related MOVs. Before these motor operators can be installed, their effect on other ongoing projects, such as the seismic analyses, need to be evaluated.

PSA:

- A. Quantitative risk calculation.
- B. Engineering judgment.
- C. Nonradiological public risk.