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LONG TERM PROGRAM: SEMI-ANNUAL REPORT

This letter provides the semi-annual Long Term Program (LTP) update. The update includes a schedule, commitment descriptions, progress since the last update, and a summary of changes. Changes in status since the last submittal are marked by revision bars in the right-hand margin.

Attachment 1 contains a status summary of both Schedule B and C items. Attachment 2 contains the history and details of Schedule B items. Attachment 3, "Summary of Changed Commitments" is intended to meet the reporting requirement of SECY 95-300, "Nuclear Energy Institutes' Guidance Document, Guideline for Managing NRC Commitments," dated December 20, 1995.

Schedule revisions include (Schedule B Items Only):

- ECCS Pump Strainers (Bulletins 95-02, 96-03) — LTP 723

Items completed include (Schedule B and C Items):

- Salt Service Water System (GL 89-13) — LTP 255, 473
- 3D Monicore Simulator Upgrade — LTP 621
- Simulator Core Model Upgrade — LTP 689
- Mapping and Population Update — LTP 794
- Ingestion Pathway Exercise — LTP 795
- Megawatt Recovery Program — LTP 798
- Main Stack Structural Maintenance — SJ99-0006

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If you have any questions on the contents of this report, please direct them to Christine Maimaron, Regulatory and Industry Affairs at (508) 830-8103.

Sincerely,

J.F. Alexander

CYM/

Attachment 1: Status Summary of Schedule B and C
Attachment 2: LTP Schedule B Items
Attachment 3: Summary of Changed Commitments
Attachment 4: Schedule

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TABLE OF CONTENTS

			Page Number
ATTACHMENT 1		Status Summary of LTP Schedule B and C Items	1
ATTACHMENT 2		Schedule B Items	6
LTP Schedule	LTP Number	Title	
B	255, 473	Salt Service Water System (GL 89-13)	7
B	410	Seismic Verification Program (GL 87-02)	11
B	487	Safety Related MOV Testing and Surveillance (GL 89-10) Pressure Locking and Thermal Binding of Safety-Related, Power-Operated Gate Valves (GL 95-07) Periodic Verification of Design - Basis Capability of Safety-Related, Motor-Operated Valves (GL 96-05)	16
B	489	Severe Accident Management Program	24
B	707	Boraflex Degradation in Spent Fuel Pools (GL 96-04)	27
B	723	ECCS Pump Strainers (Bulletins 95-02, 96-03)	29
B	728	10CFR50.54(f) RAI Regarding Adequacy and Availability of Design Basis Information	32
B	766	Year 2000 Readiness of Computer Systems at Nuclear Power Plants (GL 98-01)	35
B	SJ00-0001	316a/b Demonstration and Assessment of Alternative Strategies to Reduce Fish Larvae Entrainment at Intake	36
ATTACHMENT 3		Schedule	37

ATTACHMENT 1

Status Summary of LTP Schedule B and C Items

LTP Schedule	LTP/IADB Number	Title	Status	Summary
B	255 473	Salt Service Water System (GL 89-13)	Complete	The SWOPI Close-Out Report (SW95CR) was issued on December 22, 1999. This completes all actions.
B	410	Seismic Verification Program (GL 87-02)	Ongoing	– Reference 18 provided additional information as requested by the NRC in the Reference 17 telecon. – Reference 20 provided response to Reference 19 RAI on outlier status and information on use of GIP-2 Method A.1. – 11 original Method A scope outlier modifications being implemented on-line prior to RFO #13. – 2 original Method A scope outlier modifications are planned for implementation during RFO #13. – A schedule for the revised Method A scope outliers will be forwarded to NRC by March 1, 2000. – Closeout of modifications for revised Method A scope outliers is dependent on NRC acceptance of Pilgrim's approach as presented in Reference 20. (See Attachment 2 for References)
B	487	Safety Related MOV Testing and Surveillance (GL 89-10) Pressure Locking and Thermal Binding of Safety-Related, Power-Operated Gate Valves (GL 95-07) Periodic Verification of Design - Basis Capability of Safety-Related, Motor-Operated Valves (GL 96-05)	Ongoing	The remaining open items from the GL89-10 Inspection (Reference 30) were closed during an NRC inspection the week of January 10, 2000. There are no outstanding action items which require response to NRC for GL89-10 or GL96-05 (Reference 37). No updates will be provided for these issues in the future. By Reference 35, the NRC requested additional information related to the PNPS GL95-07 program for valves susceptible to pressure locking and thermal binding. The requested information was provided in Reference 36. Reference 36 commits to resolving the potential for pressure locking of certain valves by the end of RFO 13. (See Attachment 2 for References)

ATTACHMENT 1

Status Summary of LTP Schedule B and C Items

LTP Schedule	LTP/IADB Number	Title	Status	Summary
B	489	Severe Accident Management Program	Ongoing	– Draft resolution of acceptance criteria for using containment flooding as a DBA LOCA mitigation strategy has been developed and is under final review. – BWROG EPC II Committee to vote on resolution of above item (planned for February 2000.) – Pilgrim completion date will be driven by the above item. As soon as Committee closure is established, a schedule will be developed and communicated.
B	707	Boraflex Degradation in Spent Fuel Pools (GL 96-04)	4th Quarter, 2002	Plan calls for performing another boraflex blackness test, 4th Quarter 2002.
B	723	ECCS Pump Strainers (Bulletins 95-02, 96-03)	Ongoing	The January 21, 1999, license change was withdrawn by letter dated September 23, 1999. A revised license change was submitted November 22, 1999, and is pending with the NRC.
B	728	10CFR50.54(f) RAI Regarding Adequacy and Availability of Design Basis Information	Progress is on Schedule	– Work continues on the production, review, and approval of system design basis documents and topical design basis documents. – System and topical design basis documents are published on the Pilgrim network in a read-only format. – Vertical slice validations have been completed for three system design basis documents. No significant findings are reported.
B	766	Year 2000 Readiness of Computer Systems at Nuclear Power Plants (GL 98-01)	March, 2000	Pilgrim Station successfully rolled over into the Year 2000 with only a few nuisance Y2K problems that have been addressed. All remaining Y2K Project items will be complete after the leap year 2000.
B	SJ00-0001	316a/b Demonstration and Assessment of Alternative Strategies to Reduce Fish Larvae Entrainment at Intake	May, 2000	The 316 Demonstration is being prepared and several meetings with the US EPA conducted. A consultant is assisting in the preparation and analyses to meet the regulatory requirements.
C	621	3D Monicore - Simulator Upgrade	Complete	Simulator upgrade was completed December, 1999 and is operational.
C	689	Simulator Core Model Upgrade	Complete	Simulator Core Upgrade project is complete. The new software was installed in the Simulator on 12/26/99 and declared "Ready for Training".

ATTACHMENT 1

Status Summary of LTP Schedule B and C Items

LTP Schedule	LTP/IADB Number	Title	Status	Summary
C	728	Calculation Enhancement Program	December, 2000	Electrical portion of Program remains open and is on schedule for a December 31, 2000 completion.
C	755	EDG Improvement Program	April, 2000	"A" Diesel improvements are complete with the exception of start time improvement scheduled for a 2000 completion. All tasks associated with "B" are on schedule for a 2000 completion.
C	764	Feedwater Regulating Valve Replacement	Ongoing	This item remains open. Vendor input and evaluation of the problem (sizing and oscillations) concluded that the disc stacks in both FV-642A/B valves will be replaced in RFO 13. The valve control loops will be tuned to minimize oscillations.
C	794	Mapping and Population Update	Complete	Project completed December, 1999.
C	795	Ingestion Pathway Exercise	Complete	Project completed December, 1999.
C	798	Megawatt Recovery Program	Complete	Meter has been installed and is working properly. Additional modification upgrades are being analyzed for future consideration.
C	SJ00-0036 0037 0038 0040	Offgas Improvements	RFO 13	Plan calls for drying Augmented Offgas charcoal beds and improving cooler condenser, moisture separator, and pre-filter drainage
C	SJ00-0005	AOV Program	The design basis, and the maintenance and testing phases of the program will be implemented end of 2001	AOV project funding was approved for development of a pilot program. A program plan will be developed using the guidelines of the Joint Owners Group Air Operated Program (Document Number NX-1018.) Scheduled activities include: determining total AOV population, issuance of a sensitivity study to determine risk significance of AOV's, and purchase of diagnostic test equipment.
C	SJ00-0011	Drywell Permanent Shielding	RFO 13	Complete the installation of permanent shielding in the Drywell to reduce dose rates and minimize amount of temporary lead that is brought in and out for each RFO.

ATTACHMENT 1

Status Summary of LTP Schedule B and C Items

LTP Schedule	LTP/IADB Number	Title	Status	Summary
C	SJ00-0012	Chem Decon of the FPC and RWCU Systems	FPC - 2001 RWCU - 2001 RFO 13 (to be determined)	This project will chemically decon both systems and reduce the source term. Funding has been assigned to this project for 2001. Discussions are being held with senior management to determine if both systems will be done on line or if one will be completed before the RFO and the other during the RFO.
C	SJ00-0016	Electronic Dosimetry System Upgrade	June, 2000	This is a PNPS RP initiative that will improve the reliability of electronic dosimeters and lead to RPT dose savings (i.e., an ALARA measure). Project was initiated in January, 2000. Implementation will be ongoing during 2000. Full implementation expected by June, 2000.
C	SJ00-0022	Winter Flounder Restoration	December, 2000	The winter flounder hatchery is operational. The brood stock (spawners) has been acquired to begin the spawning process and raise 6-month old juveniles for release to the natural population.
C	SJ00-0023	Operations Plant Labeling	4th Quarter, 2000	Project calls for the installation of approximately 3,000 new labels on various plant equipment.
C	SJ00-0025	MOV Sentry Units	Ongoing 3 – 4 years	Will be installing remote data equipment systems to reduce dose. These systems will eliminate need for portable test equipment.
C	SJ00-0027	Upgrade Condensate Pumps	RFO 13	One condensate pump to be inspected/upgraded during RFO 13 with new suction head assembly.
C	SJ00-0033	Repair Rubber Lining in T-147 Sodium Hypochlorite Tank	April, 2000	Project calls for the removal and replacement of the lower half of the tank lining to protect metal integrity. Vendor has been contacted and bid is being evaluated.
C	SJ00-0034	SSW Buried Piping Inspections Repairs and Lining	RFO 13	Piping will be further inspected and repaired during RFO 13.
C	SJ00-0039	Reactor Water Cleanup Heat Removal and Tie-In Modification	RFO 13	Proposed modifications will allow the system to be used for water cleanup and enhanced decay heat removal during refueling outages. Any modifications that are finalized will be completed in RFO 13.
C	SJ00-0043	NEPOOL Op 18: Metering and Telemetering Changes	RFO 13	DSJA is being prepared and work is planned for an RFO 13 implementation.
C	SJ00-0044	Work Control System Upgrade Project	4th Quarter, 2000	The Project plan calls for full implementation by the fourth quarter of 2000.

ATTACHMENT 1

Status Summary of LTP Schedule B and C Items

LTP Schedule	LTP/IADB Number	Title	Status	Summary
C	SJ00-0047	Risk Informed ISI Program for Class1 Piping	January, 2001	Proposal submitted and vendors contacted. Meetings are planned for February, 2000.
C	SJ00-0048	Replacement of Atmospheric Oxygen Analyzer, C41	4th Quarter, 2000	Existing panel will be upgraded with new monitor.
C	SJ00-0052	Re-route Gland Seal Exhaust Drain to Condenser	RFO 13	Investigation and walk down for detailed design information are planned to be done by RFO 13. Implementation to reduce radwaste in-leakage to be done RFO 13.
C	SJ02-0001	Recirculation Flow Process Instrumentation and Flow Converters Replacement	2002 RFO 14	Funding approved for 2002 and 2003. Need to develop a DSJA for RFO 14.
C	SJ02-0002	Digital Feedwater Level Control	RFO 14	Scope calls for the replacement of existing obsolete analog control systems with state-of-the-art digital equipment.
C	SJ99-0001	Additional Spent Fuel Racks	4th Qtr 2000	Addition of two spent fuel racks. This will provide full-core offload capability to year 2007. Fabrication of racks to start first quarter of 2000.
C	SJ99-0004	CRHEAFS System Boundary Pressure Integrity Interface	August, 2000	Project calls for the installation of dampers to isolate Class 1 from Class 2 portions of the system.
C	SJ99-0006	Main Stack Structural Maintenance	Complete	Inspections, cleaning, painting and required maintenance and/or replacements were completed in mid-November, 1999.
C	SJ99-0009	Metal Analysis by X-Ray Fluorescence Spectrometer	4th Quarter, 2000	New equipment will provide a low-cost, labor-saving method for feedwater metal analysis. Installation, writing of procedures, and training on new equipment is expected to be complete by year-end.
C	SJ99-0010	Chemistry Effluent Management Program	Ongoing July, 2000	Preliminary software package has been written and delivered; initiation training of Chemistry personnel occurred in December 1999; awaiting delivery of final version of software and full training of personnel during first and second quarters of 2000.
C	SJ99-0011	Chemical Procedure Upgrade	September, 2000	Major upgrade of Chemistry Procedures to incorporate human factors.

ATTACHMENT 2

SALT SERVICE WATER SYSTEM (GL 89-13) (LTP #255, 473)

Commitment Description

Generic Letter (GL) 89-13 required licensees to review and evaluate the adequacy of the service water system and all safety related heat exchangers. The review identified a number of enhancements to the PNPS programs and procedures. As a result, BECo committed via reference 2 to the following:

- Prior to end of RFO 8, modify the RBCCW heat exchanger test procedures to include an analytical model to calculate RBCCW heat exchanger performance at test and design conditions. (Complete)
- Conduct tests with modified procedures during Cycle 9. (Complete)
- Prior to end of RFO 9, modify the RHR heat exchanger test procedures to include an analytical model to calculate RHR heat exchanger performance at test and design conditions. (Complete)
- Conduct tests with modified procedures during Cycle 10. (Complete)
- Develop a regular maintenance/test program on heat transfer capability of the remaining heat exchangers by RFO 9. (Complete)
- Conduct a single failure analysis for the RBCCW subsystem by end of RFO 8. (Complete)
- Prior to end of RFO 8, upgrade the licensed operator training module to include a loss of all service water. (Complete)
- Complete SWSOPI Items by 7/31/98. (BECo IADB RC 95.0053, SW95.XXXX) (Complete)
- Close-out report to be completed by 12/31/99.

Credit was also taken in reference 2 for the SSW piping inspection and replacement program already underway at Pilgrim which, henceforth, will be integrated as part of our Generic Letter 89-13 implementation efforts.

References

1) NRC Letter GL 89-13: "Service Water System Problems Affecting Safety-Related Equipment.
2) BECo Letter 2.90.047, dated April 2, 1990, "Response to GL 89-13".

Commitment History/Progress

Progress and Summary of Changes - March 1990 to November 1990

The licensed operator training module upgrade is complete. There are no changes to the other above-described commitments and schedules.

Progress and Summary of Changes - December 1990 to February 1991

A single failure analysis of the RBCCW subsystem has been performed. There are no changes to the other above-described commitments and schedules.

ATTACHMENT 2

Progress and Summary of Changes - March 1991 to August 1991

RBCCW heat exchanger test procedures have been modified to include an analytical model to calculate RBCCW heat exchanger performance at test and design conditions.

In addition, activities associated with SSW piping inspection and replacement are being integrated under our GL 89-13 effort. Further inspections of the SSW piping will be scheduled during each planned mid-cycle or refueling outage of sufficient duration. It remains our intention to replace SSW piping when the inspection of piping shows that to be necessary.

Progress and Summary of Changes - August 1991 to February 1992

Efforts to enhance the Salt Service Water System are proceeding as indicated in our response to Generic Letter 89-13. There are no changes to the above-described commitments.

Progress and Summary of Changes - March 1992 to August 15, 1992

A decision was made to replace the buried SSW piping with corrosion-resistant titanium. Five Plant Design Change Packages were prepared to facilitate replacement of the pipe. Construction of a pipe vault at the intake structure is in progress. Replacement activities will continue through MCO9 and RFO 9. Above ground piping will be routinely examined by non-destructive technology (typically UT) and will be replaced as required. Efforts to enhance the SSW system are proceeding as indicated above.

Progress and Summary of Changes - August 15, 1992 - February 15, 1993

There are no changes to the GL 89-13 (LTP 473) commitments described above.

We are currently installing replacement SSW underground piping (LTP 255) in preparation for system tie in RFO 9 (4/93). To support this effort, during MCO 9 (10/92) we replaced spool pieces in the Auxiliary Bay and Screen House. We also plan to replace the remainder of the Intake Structure and Auxiliary Bay above ground inlet piping and tie in the new inlet loop buried piping in RFO 9.

Progress and Summary of Changes - February 15, 1993 - July 30, 1993

RBCCW Heat Exchanger testing was completed on schedule in cycle 9. The RHR Heat Exchanger Test Procedure and Analytical Model was completed on schedule in RFO 9. The Heat Exchanger Maintenance and Test Program for Heat Transfer Capability was also completed on schedule in RFO 9. There are no changes to the remaining GL 89-13 (LTP 473) commitments described above.

Replacement of the SSW piping (LTP 255) was completed on schedule in RFO 9. Through RFO 9, 250 feet of above ground rubber lined carbon steel pipe has been replaced. In addition, 430 feet of buried rubber lined carbon steel pipe has been replaced with Titanium pipe. Augmented ISI of above ground rubber lined carbon steel pipe was also completed on schedule in RFO 9. Future ISI will be captured under LTP 473. LTP 255 is completed.

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1993 - January 31, 1994

There are no changes to the remaining GL 89-13 commitments described above. In summary, RHR heat exchanger tests will be conducted with modified procedures during Cycle 10. Ongoing inspections of the Salt Service Water System have been incorporated into our ISI program.

Progress and Summary of Changes - February 1, 1994 - July 31, 1994

There are no changes to the remaining GL 89-13 (LTP 473) commitments described above.

Progress and Summary of Changes - August 1, 1994 - January 31, 1995

We performed an extensive self-assessment of the Salt Service Water System and our response to GL 89-13 (reference 2). We are in the process of developing a plan to address issues and enhancements identified in the self-assessment. RHR heat exchanger tests were conducted with modified procedures during Cycle 10. Ongoing inspections of the Salt Service Water System have been incorporated into our ISI program.

Progress and Summary of Changes - February 1, 1995 - July 31, 1995

We are implementing a comprehensive set of enhancements identified in the Salt Service Water System Self Assessment (SWSOPI). We plan to implement most of the enhancements prior to the end of 1995, and all of these enhancements are currently scheduled for completion by the end of RFO-11.

Progress and Summary of Changes - August 1, 1995 - January 31, 1996

We are currently on schedule to complete the SWSOPI items by the end of RFO 11.

Progress and Summary of Changes - February 1, 1996 - July 31, 1996

Of the original 149 SWSOPI action items, 21 remain open. All SWSOPI-related action items are scheduled to be completed by the end of RFO 11.

Progress and Summary of Changes - August 1, 1996 - January 31, 1997

Ten SWSOPI action items remain open. These items are now scheduled for completion after RFO #11. A final close-out report will be issued before July 31, 1997.

Progress and Summary of Changes - February 1, 1997 - July 31, 1997

Three SWSOPI action items remain open. A NRC Special Inspection began May 14, 1997, to review the disposition of all SWSOPI action items and related GL 89-13 issues. Supporting this inspection, along with actions taken to respond to several issues raised, has affected the completion of the close-out report. A new schedule will be determined after the conclusion of the special inspection.

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

The remaining SWSOPI action items are scheduled for completion by July 31, 1998. The effort to produce a close-out report was affected by NRC Special Inspection 97-05 and is now scheduled to be done by the end of 1998.

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

The remaining SWSOPI actions have been completed. The close-out report remains on schedule for 12/31/98.

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

The SWOPI close-out report has been deferred to the end of second quarter 1999.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

The SWOPI close-out report has been deferred to December 31, 1999.

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

The SWOPI Close-Out Report (SW95CR) was issued on December 22, 1999. This completes all actions under these LTP items.

ATTACHMENT 2

SEISMIC VERIFICATION PROGRAM (GL 87-02) (LTP #410)

Commitment Description

The NRC's final Supplemental Safety Evaluation Report (SER) on Revision 2 of the Generic Implementation Procedures (GIP-2) for A-46 was issued via Generic Letter 87-02, Supplement 1, on May 22, 1992 (reference 4). By September 21, 1992, each licensee was required to respond to the SER stating whether they intend to follow the GIP-2 guidance, provide a schedule for implementation of the GIP including submission of a report summarizing the results of the A-46 review, and provide information on the procedures and criteria used to generate the in-structure response spectra used for A-46 implementation. Evaluation of equipment is to include: (a) adequacy of equipment anchorage; (b) functional capability of essential relays; (c) identification of potential outliers and deficiencies; and (d) seismic systems interactions.

Reference 5 committed to implement GIP-2 in its entirety and provided a description of the procedures and criteria used to generate the in-structure response spectra. A schedule of GIP-2 implementation and submission of a summary report was deferred to the February 1993 LTP semi-annual update (provided below).

In reference 6, the NRC issued a Safety Evaluation Report (SER) approving the GIP-2 submittal. The SER assumed a commitment on BECo's part to implement the GIP-2 in its entirety and noted our in-structure response spectra should be treated as median-centered. Reference 7 affirmed the NRC's assumption and clarified a continued commitment to implement the seismic verification program at Pilgrim Station through the GIP-2 and its subsequent revisions.

(BECo IADB RL 95.0003)

References

1) NRC Letter dated February 19, 1987, GL 87-02.
2) BECo Letter 88-145, dated October 11, 1988, Response to GL 87-02.
3) NRC Letter dated June 7, 1989, Acknowledgment of BECo Response.
4) NRC Letter dated May 22, 1992, GL 87-02, Supplement 1.
5) BECo Letter 92-109, dated September 21, 1992, Response to GL 87-02, Supplement 1.
6) NRC Letter dated November 18, 1992, SER of PNPS Response to GL 87-02, Supplement 1.
7) BECo Letter 93-019, dated February 11, 1993, Additional Information Regarding NRC SER of PNPS Response to GL 87-02, Supplement 1.
8) BECo Letter 94-16 dated February 9, 1994, Additional Response to GL 87-02, Supplement 1.
9) NRC Letter dated June 17, 1994, Re-evaluation of Approval for Developing Floor Response Spectra for the Resolution of USI A-46.
10) BECo Letter 96-068 dated July 12, 1996, Revision of A-46 submittal date.
11) BECo Letter 96-085 dated September 30, 1996, Summary Report, GL 87-02 (USI A-46).
12) NRC Letter dated December 16, 1997, Request for Additional Information.
13) NRC Letter dated March 24, 1998, Request for Additional Information.
14) BECo Letter 98-045 dated June 15, 1998, Response to Request for Additional Information.
15) BECo Letter 98-066 dated June 22, 1998, Response to Request for Additional Information.
16) BECo Letter 99-033 dated March 22, 1999, USI A-46 Schedule Revision.
17) April 1, 1999 teleconference with BECo and NRC regarding the use of GIP Method A at Pilgrim Station.
18) ENGC Letter 2.99.079, dated August 6, 1999, USI A-46 Supplementary Information.
19) NRC Letter dated October 13, 1999, RAI regarding the 2.99.079 ENGC Letter
20) ENGC Letter 2.99.114, dated November 8, 1999, Response to NRC October 13, 1999 RAI regarding GL87-02 USI A-46.

ATTACHMENT 2

Commitment History/Progress

Progress and Summary of Changes - March 1989 to February 1990

A. Develop safe shutdown equipment list - Schedule Revised
B. Recreate original seismic design basis documentation - Schedule Revised
C. Training and commence walkdown of accessible areas - Schedule Revised

The schedule for performing these three items was revised from Cycle 8 to Cycle 9 as a result of our re-assessment of the work to be performed for this seismic issue, with respect to the generic work scope for other similar existing and emerging seismic issues. By incorporating the similarities of work scope for each of the below listed issues into one set of physical activities, we can best optimize our resources. Other seismic issues include:

- Seismic Design Basis (USI A-40)
- Eastern Seismicity and Seismic Design Margins
- External Events (seismic) for Individual Plant Examinations

Progress and Summary of Changes - February 1990 to November 1990

A revised schedule for implementation of the seismic verification program will be developed after issuance of the NRC SER resolving the GIP open issues.

Progress and Summary of Changes - December 1990 to February 1991

No changes from the previous report period.

Progress and Summary of Changes - March 1991 to August 1991

A schedule for implementation of the seismic verification program will be developed after issuance of the NRC SER resolving the GIP open issues.

Progress and Summary of Changes - August 1991 to February 1992

A schedule for implementation of the seismic verification program will be developed after issuance of the NRC SER resolving the GIP open issues.

Progress and Summary of Changes - March 1992 to August 15, 1992

- Reference 4, issued the final NRC SER (SSER No. 2) resolving the GIP open issues and superseded all previous NRC SER documents. A response containing the following information will be made by September 21, 1992:
- A statement whether we commit to use both the SQUG commitments and the implementation guidance provided in GIP-2 as supplemented by the SSER No. 2 for the resolution of USI A-46.
- A plant-specific schedule for the implementation of the GIP and submission of a report summarizing the results of the USI A-46 review.
- Detailed description of the procedures and criteria used to generate the in-structure response spectra.

ATTACHMENT 2

Progress and Summary of Changes - August 16, 1992 - February 15, 1993

- Three BECo personnel and a contractor have completed the GIP Seismic Walkdown and Evaluation SQUG Training Program.
- A safe shutdown equipment list has been developed and is undergoing final review and approval.
- A portion of the seismic walkdowns began in MCO #9. On-line walkdowns continue during operating cycle 9. Outage walkdowns are planned for RFO 9 with any further on-line portions in operating cycle 10. Remaining off-line portions will be done in MCO 10 and RFO 10.
- At BECo's request, a meeting was held in our Braintree offices on September 3, 1992, in which we presented our intended approach to A-46 resolution and solicited NRC feedback prior to preparing our Generic Letter 87-02 response letter.

Progress and Summary of Changes - February 16, 1993 - July 31, 1993

- Walkdowns scheduled for RFO 9 were completed and other walkdowns are continuing while on-line. The goal is to minimize the impact of performing walkdowns during an outage where safe and practicable.
- Relays associated with the safe shutdown equipment list are being assessed via a full circuit analysis. This is a task being worked by Engineering and Operations.
- The majority of the SSEL equipment and relay evaluations are expected to completed by RFO 10.
- Cable tray walkdowns have been completed and the evaluations are expected to completed by RFO 10.
- Four more engineers have completed the SQUG Walkdown Screening and Seismic Evaluation Training Course (Total of 7 engineers now certified).

Progress and Summary of Changes - August 1, 1993 - January 31, 1994

- Remaining SSEL walkdowns have been planned and scheduled for MCO #10.
- Relay evaluations are nearing completion. Discussions between engineering and operations concerning essential relay designation is progressing.
- A letter requesting a review of our A-46 plan has been sent (reference 8). We have completed an initiative that demonstrates the conservatism of the PNPS design basis spectra. This would justify it to be classified as a "conservative design" spectra for A-46 implementation.
- Documentation packages are being assembled to support close-out.

Progress and Summary of Changes - February 1, 1994 - July 31, 1994

- Final SSEL walkdowns are scheduled for MCO #10.
- Seismic Evaluation Work Sheets for SSEL components are progressing.
- NRC approved PNPS classification as a "conservative design" spectra for A-46 implementation above 4 Hz.
- Relay qualification has been initiated.

Progress and Summary of Changes - August 1, 1994 - January 31, 1995

- Final SSE walkdowns are scheduled for RFO 10
- Relay qualification is progressing.
- We have rescheduled the report submittal date to 6/96. Greater than 90% of the walkdowns are complete. However, completion has been slowed by the temporary reassignment of uniquely qualified personnel to support significant emergent issues, e.g., the extended main generator forced outage, and the core shroud repair preparation

ATTACHMENT 2

Progress and Summary of Changes - January 31, 1995 - August 1, 1995

- SSEL walkdowns are now completed.
- Relay qualification is approaching completion.
- Seismic Evaluation Work Sheets (SEWS) development is nearing completion.
- Final report will be started in the 4th quarter. Submittal in June 1996 remains unchanged.

Progress and Summary of Changes - August 1, 1995 - January 31, 1996

- Seismic Evaluation Work Sheets (SEWS) are complete.
- Relay qualification assessment essentially complete.
- Assessment of "potential outliers" initiated.
- Development of documentation and final report is progressing and the submittal is planned for June 1996.

Progress and Summary of Changes - February 1, 1996 - July 31, 1996

- Requested and received an extension of the final report submittal date from June 1996 to September 1996.
- Outlier assessments are continuing.
- Validations and verification of safe shutdown equipment list (SSEL) pathways on simulator completed. Feedback is being incorporated into the program.
- Operations review of the program is in progress.
- Final report development continues.

Progress of Summary and Changes - August 1, 1996 - January 31, 1997

- Final report submitted for NRC review in September 1996.
- Outlier disposition work plan developed based upon program findings.
- Walkdowns supporting outlier disposition scheduled for RFO 11.
- Outlier disposition has been prioritized and is proceeding.
- Current planning, which is linked to receipt of an SER in 1997, calls for disposition of known outliers by RFO 12.

Progress of Summary of Changes - February 1, 1997 - July 31, 1997

- Outlier disposition work plan updated to reflect progress and RFO 11 walkdown findings.
- Resolution of spatial interactions and completion of SEWS for items walked down during RFO #11.
- PDCs (FRNs) and MRs have been issued to address a family of spatial interaction outliers that can be worked during plant operation (on-line).
- Participating in the ongoing dialog between the NRC and SQUG concerning issues associated with the use of Generic Implementation Procedure (GIP) Method A (a method used to verify the seismic adequacy of equipment installed in operating nuclear plants).
- Identifying outliers for potential field modifications during RFO 12.

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

Based on the NRC review of Pilgrim's September 30, 1996 summary report submittal, a Request for Additional Information (RAI) was issued on December 16, 1997. A 90 day response was requested. We are addressing the RAI questions and expect to respond within the requested time.

The resolution of equipment outliers is proceeding with specific emphasis on activities that will require implementation during RFO 12.

ATTACHMENT 2

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

- Provided responses (references 14 and 15) to two NRC Requests for Additional Information (references 12 and 13).
- Resolution of equipment outliers continues with emphasis on activities that require RFO #12 implementation.
- Resolution of relay outliers is completed. Eight relays will require replacement, either during RFO 12 or during an appropriate on-line opportunity.
- Based upon the ongoing dialogue between the NRC and SQUG associated with the application of Method A detailed in the Generic Implementation Procedure, the following is noted:
  - Method A was re-applied with the acceleration placed at depth (vs. at the free-surface).
  - Results have been captured via SEWS.
  - Outliers have been identified.
  - Operability assessments have resulted in no reportable cases.
- Outliers based upon the re-application of the Method A methodology may not be completed by RFO 12. A schedule for final outlier resolution will be developed after receipt of the NRC SER for Pilgrim.

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

- Plant Design Change packages have been completed and are the basis for on-line or RFO 12 implementation for outlier relay replacement, and non- relay outlier resolution.
- Outliers based upon the re-application of the Method A methodology are not scheduled for RFO #12 implementation. The schedule is dependent upon receipt of the NRC SER for Pilgrim Station.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

- Reference #16 notified the NRC of a change in work scope planning for modifications to be implemented during RFO 12.
- All outlier relays were replaced during RFO 12.
- Existing structural outliers requiring an outage were completed during RFO 12.
- Other existing structural outliers have been, and will continue to be worked online throughout 1999.
- Outliers based upon the re-application of Method A (at depth vs. free-surface) are linked to receipt of the NRC SER as indicated in the Reference #16 BECo letter. Plans and schedules will be established for resolution upon SER receipt. No relays are included in this group.
- Per the Reference #17 telecon, a submittal providing additional information in support of NRC preparation of a plant-specific SER for USI A-46 program implementation at Pilgrim Station is expected to be issued in the August, 1999 timeframe.

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

- Reference 18 provided additional information as requested by the NRC in the Reference 17 telecon.
- Reference 20 provided response to Reference 19 RAI on outlier status and information on use of GIP-2 Method A.1.
- Eleven original Method A scope outlier modifications being implemented on-line prior to RFO #13.
- Two original Method A scope outlier modifications are planned for implementation during RFO #13.
- A schedule for the revised Method A scope outliers will be forwarded to NRC by March 1, 2000.
- Closeout of modifications for revised Method A scope outliers is dependent on NRC acceptance of Pilgrim's approach as presented in Reference 20.

ATTACHMENT 2

SAFETY-RELATED MOV TESTING AND SURVEILLANCE (GL 89-10) (LTP #487)

PRESSURE LOCKING AND THERMAL BINDING OF SAFETY-RELATED, POWER-OPERATED GATE VALVES (GL 95-07)

PERIODIC VERIFICATION OF DESIGN - BASIS CAPABILITY OF SAFETY-RELATED MOTOR-OPERATED VALVES (GL 96-05)

Commitment Description

Generic Letter (GL) 89-10 (reference 1) expands the scope of the motor operated valve program required by NRC Bulletin 85-03 and its Supplement, to include additional testing, inspecting, and maintenance for all safety-related motor operated valves.

In our reference 2 response to the GL, we committed to develop a program to enhance the maintenance, analysis, and testing already being conducted on MOVs at Pilgrim. The GL calls for the development of this program within 1 year or one refueling outage from the date of the letter, whichever is later. For BECo, this schedule translates to RFO 8. Our plan was to begin a design basis review of MOVs in the first quarter of 1991 and to begin testing in RFO 9. Based on resource constraints in 1990, we revised the design basis review schedule to commence in the last quarter of 1991. This revision continues to support our commitment to begin testing in RFO 9 and supports our program development schedule. We anticipate the testing will require three refueling outages, based on the extent of known scope. Additional scope determinations as a result of NUMARC and BWROG involvement will be factored into our final scope and schedule as appropriate.

Reference 6 requested Licensees to perform a plant specific safety assessment to determine if generic safety assessments performed by the NRC staff and the BWR Owners' Group are applicable. If MOVs are discovered with potential deficiencies of greater significance than the HPCI, RCIC, and RWCU MOVs, planned activities to address the generic letter were to be re-prioritized accordingly. Notification within 30 days of receipt of Supplement 3 was required verifying a plant-specific safety assessment was performed and identifying whether there were MOVs with deficiencies of greater safety significance than in the HPCI, RCIC, and RWCU systems. An additional notification within 120 days of receipt was also requested to provide the criteria reflecting operating experience and the latest test data applied in determining whether deficiencies exist in the HPCI, RCIC, and RWCU MOVs.

In our reference 7 letter, we concluded the subject valves in the HPCI, RCIC, and RWCU systems were capable of performing their safety function to provide containment isolation in the event of a line break outside containment. This submittal provided our 30 and 120 day response to the generic letter and precluded having to perform a plant specific safety assessment. We also committed in reference 7 to conduct diagnostic testing on the Reactor Water Cleanup (RWCU) MO-1201-2 valve during RFO #8. We expanded our planned RFO 8 testing to include 2 additional valves: RWCU MO-1201-5 and Closed Cooling Water MO-4010A.

The NRC issued a Request for Additional Information (RAI) (reference 10) after reviewing our reference 7 and 8 responses to GL 89-10 Supplement 3. BECo responded to the RAI on August 29, 1991 (reference 11).

During the week of March 9-13, 1992, the NRC conducted an inspection of the PNPS GL 89-10 MOV program. As a result of this inspection Boston Edison committed to resubmit the GL 89-10, Supplement 3, response and accelerate the schedule for priority 1 valves to have the GL 89-10 actions completed by the end of RFO 10.

Priority 1 valves were completed in RFO 10. The remaining safety-related valves were completed in RFO 11.

The MOV PPM analysis is complete. (BECo IADB RL95.005)

ATTACHMENT 2

References

1) NRC Letter dated June 28, 1989, GL 89-10 "Safety-Related MOV Testing and Surveillance".
2) BECo Letter, dated January 15, 1990, 2.90.013.
3) NRC Letter dated June 7, 1990, Response to GL 89-10.
4) NRC Letter dated June 13, 1990, Supplement 1 to GL 89-10.
5) NRC Letter dated August 3, 1990, Supplement 2 to GL 89-10.
6) NRC Letter dated October 25, 1990, Supplement 3 to GL 89-10.
7) BECo Letter dated December 17, 1990, 2.90.158.
8) BECo Letter dated February 26, 1991, 2.91.022.
9) NRC Letter dated April 1, 1991, Meeting Summary BECo/NRC.
10) NRC Letter dated June 24, 1991, RAI regarding GL 89-10 Supplement 3.
11) BECo Letter dated August 29, 1991, 2.91.111.
12) NRC Letter dated February 18, 1992, Closure of GL 89-10, Supplement 3.
13) NRC Letter dated February 12, 1992, GL 89-10 Supplement 4.
14) NRC Letter dated June 3, 1992, Inspection 50-293/92-80 Motor Operated Valve Inspection.
15) NRC Letter dated May 5, 1992, Motor Operated Valve Inspection at PNPS (NRC Inspection Report 50-293/92-80).
16) BECo Letter dated April 14, 1992, Revision to GL 89-10 Supplement 3 Response, 2.92.044.
17) NRC Letter dated June 28, 1993, GL 89-10 Supplement 5.
18) BECo Letter dated October 21, 1993, Response to GL89-10 Supplement 5, 2.93.135.
19) BECo Letter dated January 7, 1994, Update to GL89-10, Supplement 3 Response, 2.94.005.
20) NRC Letter dated April 19, 1994, GL 89-10, Supplement 5.
21) GL 95-07, "Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves (BECo #1.95.131).
22) BECo Letter dated October 16, 1995, 60-Day Response to GL 95-07, 2.95.108.
23) BECo Letter dated February 23, 1996, 180-Day Response to GL 95-07, 2.96.013.
24) NRC GL 96-05, Periodic Verification of Design - Basis Capability of Safety - Related Motor - Operated Valves, September 18, 1996.
25) BECo Letter dated November 15, 1996, Response to GL 96-05, 2.96.099.
26) BECo Letter dated May 19, 1997, MOV Closure Letter (GL 89-10), 2.97.055.
27) BECo Letter dated June 18, 1997, 180-Day Response to GL 96-05, 2.97.064.
28) BECo Letter dated December 23, 1997, Supplementary Information Related to GL 96-05, 2.97.133.
29) BECo Letter dated December 11, 1997, Information Related to Closure of GL 96-10, 2.97.129.
30) NRC Inspection 97-13, dated February 6, 1998, includes close-out of GL 89-10.
31) BECo Letter dated June 26, 1998, Response to Safety Evaluation Joint Owner's Group Program on Periodic Verification of Motor Operated Valves, 2.98.086
32) BECo Letter dated June 26, 1998, Supplementary Information Related to Closure of GL 89-10, 2.98.087.
33) NRC Letter dated September 14, 1998 RAI GL 96-05 (BECo 1.98.123).
34) BECo Letter dated November 25, 1998, Response to NRC Request for Additional Information Regarding GL 96-05 Program (BECo 2.98.152).
35) NRC letter dated March 24, 1999, Second Request for Additional Information – GL 95-07 (ENGC Letter 1.99.028)
36) PNPS letter dated August 16, 1999, Response to Second Request for Additional Information – GL 95-07 (ENGC Letter 2.99.078)
37) NRC Letter dated December 2, 1999, (ENGC Letter 1.99.130) Safety Evaluation of Licensee Response to GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

ATTACHMENT 2

Commitment History/Progress

Progress and Summary of Changes - February 1990 to November 1990

- Begin a design basis review of MOVs is on schedule for first quarter of 1991.
- Begin testing is on schedule for RFO 9 (completion within 3 refueling outages).
- 30 day notification in accordance with Generic Letter 89-10, Supplement 3 is planned for submittal by December 13, 1990.
- 120 day notification efforts are planned for submittal by March 13, 1991.

Progress and Summary of Changes - December 1990 to February 1991

- The schedule for commencement of design basis reviews of MOVs is being changed from the first quarter of 1991 to the last quarter of 1991. This schedule revision continues to support our commitment to begin testing in RFO 9.
- Begin testing is on schedule for RFO 9 (completion within 3 refueling outages).
- 30 day and 120 day notifications are complete.
- 3 safety related valves are on schedule for diagnostic testing during RFO 8 (MO-1201-2, 1201-5, and 4010A).
- Development of a Program Plan is on schedule for completion by May 1, 1991.

Progress and Summary of Changes - March 1991 to August 1991

- Commencement of design basis reviews of MOVs is on schedule for the last quarter of 1991.
- Begin testing is on schedule for RFO 9 (completion within 3 refueling outages).
- Diagnostic testing of MO-1201-2, 1201-5, and 4010A was conducted during RFO 8. In addition to this testing, we completed diagnostic testing on the remaining GL 89-10 Supplement 3 MOVs (4 valves) and on another 10 safety related MOVs.
- Development of a Program Plan is complete.

Progress and Summary of Changes - August 1991 to February 1992

- Design basis reviews of MOVs continue to support our commitment to begin testing in RFO 9.
- Testing is on schedule to begin in RFO 9 (completion within 3 refueling outages).
- Procedures are in preparation describing design basis review methodology, control of switch settings, and degraded voltage analysis. Additionally, a Nuclear Organization Procedure establishing our MOV program is in final review.
- The schedule for static testing of MOVs has been accelerated and some testing will be done during our mid-cycle outage prior to RFO 9.
- MOVs tested using MOVATS test equipment were reviewed and have been retested using more accurate diagnostic test equipment or been reviewed to ensure there is sufficient margin.

Progress and Summary of Changes - March 1992 to August 15, 1992

- Design basis reviews of MOVs continue to support our commitment to begin testing in RFO 9.
- Testing is on schedule to begin RFO 9.
- GL 89-10 activities will be completed for priority 1 valves by the end of RFO 10.
- reference 16 submitted a revision to GL 89-10, Supplement 3, response (reference 8).
- Nuclear Organization Procedure 92M1 "Motor Operated Valve Program" has been approved.
- Procedures describing design basis review methodology and control of switch settings are approved. Draft procedures for degraded voltage of motors are being revised to include temperature effects on available torque. Additional procedures are being developed as necessary.

ATTACHMENT 2

Progress and Summary of Changes - August 15, 1992 - February 15, 1993

- Design basis review is on schedule to support commitment to complete Priority 1 valves by RFO 10.
- Static testing was performed during MCO #9.
- New state of the art test equipment was purchased that provides direct stem torque and thrust measurements.
- Significant MOV testing, maintenance, and inspections scheduled for RFO 9.

Progress and Summary of Changes - February 15, 1993 - July 31, 1993

Design Basis Reviews (DBR) and Diagnostic Testing are on schedule to complete Priority I MOVs (55 valves) by RFO 10. DBR and Testing related to the remaining Safety Related (SR) MOVs (35 valves) is also on schedule and is expected to be completed by RFO 11.

Significant MOV testing, maintenance and inspections were completed in RFO 9. Maintenance and inspections were conducted on 56 SR MOVs. Diagnostic Testing was completed on 21 SR MOVs.

Through RFO 9, 46 out of a total population of 90 SR MOVs have been set up via diagnostic testing techniques. Through RFO 9, 29 of 55 Priority I MOVs have been set up via diagnostic testing techniques.

MOV testing, maintenance, and inspections are scheduled to continue in MCO 10, including the first phase of Dynamic Testing.

Progress and Summary of Changes - August 1, 1993 - January 31, 1994

Design Basis Reviews (DBR), Diagnostic Testing, Inspections, Maintenance and Modifications are on schedule to support the commitment to complete Priority 1 MOVs (55 valves) by RFO 10. Similar efforts related to the remaining Safety Related (SR) MOVs (35 valves) are also on schedule and are expected to be completed per the current commitment, RFO 11.

The first phase of Dynamic Testing is on schedule to commence in MCO 10.]The use of an alternative valve and actuator design is under consideration for implementation on a certain population of MOVs. Candidate MOVs are those which would require significant modifications utilizing typical manufacturer product design and applications. The alternative design has several advantages including a solid-state control system, enhanced repeatability, reduced electrical power demand and a reduced preventative maintenance frequency. The alternate design would also decrease the probability of potential common mode failure issues and diversify plant design.

Our response to GL 89-10, Supplement 5 (reference 18), indicated actions to be taken to resolve the accuracy issues associated with the use of Liberty Technologies VOTES equipment. The following actions were required:

- Update the VOTES test results using the revised property constants and torque correction factors. This action is complete. Subsequent to this action, Liberty issued Customer Service Bulletin (CSB) 031 that requires review of test results due to a software problem in the VOTES equipment. This new action will be completed and updated by our next LTP submittal.

- Revise Liberty Technologies test results to use a curve fit algorithm and determine extrapolation error. This action is complete. Subsequent to completion, Liberty issued CSB-031 causing a need to review post test results. This new action will be completed and updated by our next LTP submittal.

Progress and Summary of Changes - February 1, 1994 - July 31, 1994

Design Basis Reviews (DBR), Diagnostic Testing, Inspections, Maintenance and Modifications are on schedule to support the commitment to complete Priority I MOVs (55 valves) by the end of RFO 10. Similar efforts related to the remaining Safety Related (SR) MOVs (35 valves) are also on schedule and are expected to be completed per the current commitment, RFO 11. The work scope applicable to the Priority I MOVs includes approximately (90) Inspections, (17) Overhauls, (48) Static Diagnostic Tests, (36) Dynamic Diagnostic Tests and (52) Modifications.

The first phase of Dynamic Testing is on schedule to commence in MCO #10.

The use of an alternative valve design, as previously discussed, is being aggressively pursued for implementation on (4) MOVs in RFO 10. The use of an alternative actuator design is also being aggressively pursued for implementation on (1) MOV in RFO 10. The alternate design incorporates GL 89-10 'lessons learned' as well as the most recent EPRI and INEL technical information. Back-up plans are also being developed should new product qualification issues not support our RFO 10 schedule commitment.

Progress and Summary of Changes - July 31, 1994 - January 31, 1995

GL 89-10, Safety Related MOV Testing and Surveillance' activities continue on schedule to support the commitment to complete Priority I MOVs (55 valves) by RFO 10, with the remaining Safety Related (SR) MOVs (35 valves) following per the current schedule commitment, RFO 11.

Significant progress was made during the generator forced outage in the Fall of 1994. The forced outage enveloped the original scheduled MCO #10. A total of forty-nine (49) MOVs were worked during the Fall outage. Industry corrective actions and GL 89-10 design changes accounted for thirty-six (36) of the forty-nine (49) activities performed. Activities ranged in complexity from complete actuator replacement/valve disassembly to simple changes in gear ratio and EQ inspections.

Valve modifications were completed on three (3) MOVs for the purpose of installing pressure locking relief paths. Potential over-thrust/over-torque conditions were also dispositioned on two MOVs in the RWCU and RCIC systems.

The first phase of Dynamic Testing was completed during the Fall outage. Differential pressure diagnostic testing was completed on thirteen (13) MOVs. Static diagnostic testing also continued during this outage with twenty-five (25) MOVs being set using state-of-the-art equipment and industry data.

The use of an alternative valve design, as previously discussed, is scheduled for implementation on (4) MOVs in RFO 10. The use of an alternative actuator design is also being aggressively pursued for implementation on (1) MOV in RFO 10. The alternate designs incorporate GL 89-10 'lessons learned' as well as the most recent EPRI and INEL technical information. Back-up plans are in place to install a conventional design actuator should delivery of the new actuator not support our RFO 10 schedule commitment. Whichever actuator is installed, committed actions will be completed in RFO 10.

ATTACHMENT 2

Progress and Summary of Changes - February 1, 1995 - July 31, 1995

The first phase of GL 89-10, Safety Related (SR) MOV Testing and Surveillance activities (55 Priority I MOVs) was completed on schedule in RFO 10. The remaining Safety Related MOVs (35 valves) will follow per the current schedule commitment, RFO 11.

Significant progress was made during RFO 10 (Spring 95). A total of sixty eight (68) SR MOVs were worked during the refueling outage. Industry corrective actions and GL89-10 design changes accounted for forty (40) of the sixty eight (68) activities performed. Activities ranged in complexity from complete valve/actuator replacement to simple changes in gear ratio and EQ inspections.

Valve modifications were completed on five (5) MOVs in RFO 10 for the purpose of installing pressure locking relief paths. This brings the total number of MOV related modifications to eight. No additional MOV modifications related to this issue are expected.

During RFO 10, differential pressure diagnostic testing was completed on thirty five (35) MOVs. Static diagnostic testing also continued during the RFO with forty (40) MOVs being set using state-of-the-art equipment and industry data.

Design basis operation for eight three percent (83%) of Priority 1 gate and globe motor operated valves has been confirmed via differential pressure diagnostic testing. Static diagnostic testing has been performed on all Priority 1 gate and globe motor operated valves (47).

The installation of an alternative valve design ("Sentinel"), as discussed in the previous update, was completed on (4) MOVs in RFO 10. Three of the six GL 89-10 Supplement 3 MOVs were replaced with the new design. RFO 10 test results indicate excellent performance characteristics. The use of an alternative actuator design is also continuing to be aggressively pursued for future implementation. The alternate designs incorporate GL 89-10 "lessons learned" as well as the most recent EPRI and INEL technical information and thus represent a truly engineered solution to many outstanding design issues.

Progress and Summary of Changes - August 1, 1995 - January 31, 1996

The scope of work associated with RFO 11 will be similar in nature and in quantity to that accomplished in RFO 10 (summarized in the previous update). Certain Priority I MOV's will again be worked for the purpose of accomplishing standard preventative maintenance, disposition of emergent generic industry issues, or to inspect for potential degradation for trending or corrective maintenance. The strategy is to complete as much of the scope on line within the scheduled system windows as possible. This strategy optimizes resources and considers ALARA.

The issue of "Pressure Locking and Thermal Binding..." with respect to MOVs is essentially complete. Twelve (12) MOVs have been determined to be susceptible to pressure locking and three (3) MOVs have been determined to be susceptible to thermal binding. Physical modifications are complete on eleven (11), procedure changes are planned on four (4), with the remainder being dispositioned via engineering evaluation as not susceptible. Specific details are available in our 180-day response to GL 95-07 (reference 23).

ATTACHMENT 2

Progress and Summary of Changes - February 1, 1995 - July 31, 1996

The remaining Safety Related MOVs (35 valves) are on schedule to complete per the current commitment, RFO 11.

BECo is also pursuing a permanently installed MOV monitoring system. It is designed to be a non-intrusive device capable of automatically acquiring critical valve performance parameters. It will record and store the valve data onto a removable cartridge for future analysis. The system provides a method of trending valve performance to address periodic test verification requirements.

The installation of an alternative valve design ("Sentinel"), was completed on (4) MOVs in RFO 10. Three of six GL 89-10 Supplement 3 MOVs were replaced with the new design. RFO 10 test results indicate excellent performance characteristics. Confirmatory flow and thermal effects testing was conducted by OEM (General Electric) in May 1996. The testing identified conditions which are not specifically or conservatively addressed in GL 95-07 (Pressure locking and Thermal Binding of Safety-Related Power-Operated Gate Valves"). This issue was identified in our response to RAI TAC No. M93504 and will be followed/dispositioned under GL 95-07.

Progress and Summary of Changes - August 1, 1996 - January 31, 1997

There are no significant changes to the commitments identified or referenced above.

The first phase of GL 89-10, Safety Related (SR) MOV Testing and Surveillance activities (55 Priority I MOVs) was completed on schedule in RFO 10. The remaining safety related MOVs (35 valves) are on schedule to complete per the current commitment, RFO 11 (February 1997).

The scope of work associated with RFO 11 will be similar in nature and in quantity to that accomplished in RFO 10. Approximately fifty (50) safety-related MOVs make up the RFO 11 scope. Certain Priority I MOVs will again be worked for the purpose of accomplishing standard preventive maintenance, trending, disposition of emergent generic industry issues, or to inspect for potential degradation and perform the associated corrective maintenance.

Approximately thirty safety-related MOVs were completed on-line within the scheduled system windows. This strategy increases design margin at the earliest possible time and optimizes resources / ALARA considerations.

Pilgrim also intends to install and test the 'Sentry' on-line monitoring system on approximately eight (8) MOVs in RFO 11. This system has the capability to record and store diagnostic data which can be used to analyze the MOVs performance over time. Pilgrim intends to utilize this system as one of the elements of the Periodic Verification Program (GL 96-05). BECo Letter 96-099, dated November 15, 1996, provides our current commitment relative to periodic verification to be established by September 30, 1997.

Progress and Summary of Changes - February 1, 1997 - July 31, 1997

All activities and commitments associated with GL 89-10 have been completed (reference 26).

The MOV verification program will be established by September 30, 1997.

Boston Edison Company expects to begin implementation of the MOV verification program by December 31, 1997 (reference 27).

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

The MOV periodic verification program was established by September 30, 1997. We are currently developing the implementing procedures and expect to begin implementation of the periodic verification program by February 28, 1998 (reference 28).

All activities and commitments associated with GL 89-10 were inspected and GL 89-10 was closed by NRC Inspection Report 97-13, based on a commitment to implement the EPRI Performance Prediction Methodology (PPM) for non-testable MOVs by June 30, 1998 (reference 29).

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

The implementation of MOV PPM is continuing. The issues identified in the MOV inspection report 97-13 are further discussed in reference 32. The status of the closure issues will be communicated to the NRC by November 15, 1998. BECo has committed to participate in the joint owner's group periodic verification program (reference 31), and plans to implement the program elements described in Topical Report NEDC-32719, Revision 2.

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

Reference 34 provided a response to the NRC request for additional information (Reference 33) regarding closure of GL89-10, GL96-05, and issues raised in Inspection Report 97-13. The resolution of closeout inspection issues and implementation of MOV PPM modifications continues, as described in Reference 34.

Progress and Summary of Changes - Februay 1, 1999 - July 31, 1999

The resolution of closeout inspection issues and implementation of MOV PPM modifications continue as described in reference 34.

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

The remaining open items from the GL 89-10 Inspection (Reference 30) were closed during an NRC inspection the week of January 10, 2000. There are no outstanding action items which require response to NRC for GL 89-10 or GL96-05 (Reference 37). No updates will be provided for these issues in the future.

By Reference 35, the NRC requested additional information related to the PNPS GL 95-07 program for valves susceptible to pressure locking and thermal binding. The requested information was provided in Reference 36. Reference 36 commits to resolving the potential for pressure locking of certain valves by the end of RFO 13.

ATTACHMENT 2

SEVERE ACCIDENT MANAGEMENT PROGRAM (LTP #489)

Commitment Description

Pilgrim Station intends to implement the formal industry position on severe accident management approved by the Nuclear Energy Institute's Nuclear Strategic Issues Advisory Committee on November 21, 1994, from NEI to the Director, Office of Nuclear Regulation.

By letter dated March 24, 1995, (Reference 1) BECo committed to assess current capabilities to respond to severe accident conditions using Section 5 of NEI 91-04, Revision 1, "Severe Accident Issue Closure Guidelines."

(BECo IADB RC 98.2069.01, PR 98.9541)

References

1) BECo letter 2.95.046 dated March 24, 1995, Severe Accident Management.
2) BECo letter 2.98.069 dated June 1, 1998, Severe Accident Management Program.
3) NRC letter dated November 24, 1998, Inspection Report 50-293/98-203.
4) BECo letter 2.98.165 dated December 30, 1998, Severe Accident Management Implementation.

Commitment History/Progress

Progress and Summary of Changes - February 1, 1995 - July 31, 1995

- Multi-disciplined Task Force and Project Manager assigned to Program.
- Integration with EOP update initiated
- Project goals, objectives, schedules, costs, and task ownership approved.
- Detailed task assignments have been made.
- Continued interaction with the BWROG's Severe Accident Working Group.
- Detailed reviews of governing guidance documents have been initiated.

Progress and Summary of Changes - August 1, 1995 - January 31, 1996

- Vendor selected to complement in-house resources.
- Continued interaction with the BWROG's Severe Accident Working Group.
- Data collection to support calculations initiated.
  - The following tasks have been initiated:
    Develop Plant Specific Technical Guidelines and Plant Specific Severe Accident Guidelines
  - Evaluate Emergency Response Organization
  - Verify technical guidelines
  - Formulation of design decisions

Progress and Summary of Changes - February 1, 1996 - July 31, 1996

- Continued interaction with BWROG's Severe Accident Working Group.
  - Work is continuing in the following areas:
    Plant specific technical guidelines/plant specific severe accident guidelines.
  - Evaluation of the Emergency Response Organization.
  - Verification of technical guidelines and formulation of design decisions.
- Full task force review and approval of interim products is progressing.

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1996 - January 31, 1997

Continued interactions with the BWROG's Severe Accident Working Group and the Nuclear Energy Institute (NEI) to follow emergent activities affecting program completion.

- Work is continuing in the following areas:
  - Development of proposed EOP revisions (including flow charts).
  - Preparation for revised EOP validation program.
  - Revision of EOP satellite procedures.
  - Existing EOP training provided to project task force.
  - Development of Pilgrim Station Severe Accident Management Guidelines (flow charts).
  - Revising portions of the Pilgrim Station Emergency Plan and implementing procedures.
  - Assessing the integration of the EOPs and Severe Accident Management Guidelines with the Emergency Response Organization.

Progress and Summary of Changes - February 1, 1997 - July 31, 1997

- Participated as an observer in Virginia Power's North Anna Severe Accident Management demonstration (July 1997). Although North Anna is a PWR, the lessons learned will serve as a means to self-assess the Pilgrim Station Severe Accident Management program for completeness.
- Work is continuing in the following areas:
  - Verification and validation tasks are proceeding and will be completed in the fourth quarter by working on the plant simulator with an operations crew.
  - Assessing the integration of the EOPs and Severe Accident Management Guidelines with the Emergency Response Organization.
  - Defining training requirements based on functional responsibilities and developing training modules.
- Per schedule, organizational-wide training should begin in the first quarter of 1998.

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

- Verification and validation activities are proceeding.
- Training modules are being finalized to perform the required training.
- Program is on schedule for completion by June 1998.

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

- BECo informed the NRC of the need for an extension of the program completion date to December, 1998 (reference 2).
- Verification and validation activities are complete.
- Training is scheduled for 4th quarter 1998.
- Emergency Preparedness support procedures are developed and under review.
- The safety evaluation is under development
- Operations review of revised EOPs and new SAGs is complete.
- Program is on schedule for 12/31/98 completion.

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

In reference 3, the NRC AE inspection team identified concerns (URI 98-203-03) associated with the use of containment flooding as a DBA LOCA mitigation strategy. The NRC considers this to be a generic issue, as inspection findings at other facilities revealed this mitigation strategy was common practice. In reference 4, BECo notified the NRC that the PNPS EOP for vessel flooding (EOP-09), was also part of Pilgrim's planned implementation of the industry-endorsed Severe Accident Guidelines (SAG). Resolution of this issue needs to occur before PNPS implements the SAG. Therefore, SAG implementation is being delayed for approximately one year. We are working with the Boiling Water Reactor Owners Group (BWROG) to resolve this potential generic issue.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

- We continue to take an active role in the BWROG EPC II Committee to resolve the AE Inspection generic issue associated with the use of containment flooding as a DBA LOCA mitigation strategy. Final resolution will require BWROG/NRC concurrence prior to proposing any further Pilgrim completion date.
- An engineering evaluation assessing flooding and venting has been successfully completed.

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

No change since last update.

ATTACHMENT 2

BORAFLEX DEGRADATION IN SPENT FUEL POOLS (GL 96-04) (LTP #707)

Commitment Description

Generic Letter 96-04 (reference 1, NRC Letter dated June 26, 1996, 1.96.107) required utilities / licensees using Boraflex as a neutron absorber in spent fuel storage racks to provide a response within 120 days that: (1) assesses the capability of the Boraflex to maintain a 5-percent subcriticality margin, and (2) submits to the NRC a plan describing its proposed actions to provide assurance that the 5% subcriticality margin continues to be maintained in the future.

Boston Edison requested an extension to December 18, 1996 (reference 2, BECo Letter dated September 2, 1996, 2.96.107) to allow blackness testing to be conducted and an assessment of the test results.

In reference 3, Boston Edison committed to the following:

- Pertinent Boraflex analysis information concerning the >5% subcriticality margin will be incorporated into the UFSAR.
- Another blackness test of selected Boraflex cell panels will be conducted in 1998.
- The post-1998 schedule for direct material surveillance will be determined using the 1996 and 1998 blackness testing data and will consider spent fuel pool silica data.

(BECo IADB RC 96.0031)

References

1) NRC Letter dated June 26, 1996, 1.96.107, Generic Letter 96-04, "Boraflex Degradation in Spent Fuel Pools".
2) BECo Letter dated September 23, 1996, 2.96.084, Request for Extension.
3) BECo Letter dated December 18, 1996, 2.96.107, Response to GL 96-04.

Commitment History/Progress

Progress and Summary of Changes - August 1, 1996 - January 1, 1997

Boston Edison performed a blackness test of the Boraflex material in its spent fuel pool racks; expected shrinkage of the Boraflex was observed. Re-analysis of the spent fuel pool subcriticality was also performed assuming degradation of the Boraflex that far exceeded the level observed in the most recent tests; the analyses confirmed Pilgrim's margin to criticality is greater than the minimum required of 5%.

Progress and Summary of Changes - February 1, 1997 - July 31, 1997.

We moved fuel in the spent fuel pool for blackness testing in 1998.

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

Pertinent Boraflex analysis information concerning the >5% subcriticality margin was incorporated into the UFSAR in Rev. 21, October 1997. Blackness testing will be conducted during the last quarter of 1998.

ATTACHMENT 2

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

Holtec International has been issued a purchase order to conduct the second blackness test on 100 selected Boraflex storage rack locations. Holtec provided BECo its test procedure on July 30. The 100 storage cells selected for testing have been exposed to radiation (primarily gamma) since August 1997 from RFO 11 irradiated assemblies. The Holtec test team is scheduled to arrive on September 28, 1998.

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

The second blackness test of PNPS Boraflex fuel storage racks was completed in October 1998. The testing indicates the progression of damage is slow. Continued subcriticality margin is calculated to be sufficient for a substantial period in the future. Program plans for future Boraflex monitoring are being developed.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

Plan calls for performing another boraflex blackness test, 4th Quarter 2002.

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

No change since last update.

ATTACHMENT 2

ECCS PUMP STRAINERS (Bulletin 95-02) , (Bulletin 96-03) (LTP #723)

Commitment Description

Pilgrim has performed testing for the purpose of confirming suppression pool and strainer cleanliness. The testing confirmed strainer cleanliness, and the results were transmitted to the NRC (reference 3). Pilgrim will inspect the ECCS suction strainers in RFO 11 and will also continue with pool cleaning in that outage. Future pool cleaning frequency will be based on a plan consistent with generic studies currently on going via the BWROG. Pilgrim completed foreign material exclusion (FME) procedure enhancements on February 8, 1996.

Bulletin 96-03 requested that appropriate procedural measures and plant modification to minimize the potential for clogging of ECCS suppression pool suction strainers by debris generated during a LOCA. BECo plans to install new ECCS suction strainers that will increase the design margin relative to the existing design basis.

New strainers were installed in RFO 11.
(BECo IADB RL 95.0033)

References

1) NRC Bulletin 95-02, "Unexpected Clogging of a Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cool Mode", dated 10/17/95 (BECo Letter 1.95.165)
2) BECo Response dated 11/16/95 (BECo Letter 2.95.118)
3) BECo 120-Day Response dated 2/13/96 (BECo Letter 2.96.007)
4) NRC Bulletin 96-03, "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors", 5/6/96 (BECo Letter 1.96.078)
5) NRC Regulatory Guide 1.82, Rev. 2: Water Sources for Long-Term Recirculation Cooling Following a Loss of Coolant Accident, dated May 1996 (BECo Letter 1.96.086)
6) BECo Letter dated 11/1/96, 2.96.092, Pilgrim's 180 Day Response to NRC Bulletin 96-03.
7) BECo Letter dated 2/7/97, 2.97.012, Additional information regarding pump suction strainer installation at Pilgrim Station.
8) BECo letter dated 12/30/98, 2.98.167, Summary Final Response to NRC Bulletin 96-03.
9) BECo letter 1/21/99, 2.99.001, Request for License Change Concerning ECCS NPSH.
10) ENGC Letter 9/23/99, 2.99.100, Request to Withdraw ECCS NPSH License Change.
11) ENGC Letter 11/22/99, 2.99.089, Request for License Change Concerning ECCS NPSH.

Commitment History/Progress

Progress and Summary of Changes - August 1, 1995 - January 31, 1996

Pilgrim has conducted a review of ECCS capability and has determined that the ECCS systems are operable, the strainers are not clogged or degraded, and the suppression pool is free of debris that is or can become suspended and result in strainer clogging. This conclusion is based on previous pool cleaning activities and inspections and verified by representative pump performance testing.

Foreign material exclusion (FME) procedures are in place that should prevent the introduction of material with the potential to compromise ECCS capability. Further enhancements to drywell cleanliness practices are planned to reduce the potential for foreign material entering the torus.

Trending in terms of water cleanliness and pump suction pressures are in place and will continue in order to monitor water quality with respect to this issue. Suppression pool cleaning is scheduled for RFO 11. This and subsequent cleaning/inspection are intended to be consistent with BWROG guidance with respect to items such as sludge generation rate and cleanliness criteria. Pilgrim is active in the BWROG committee and intends to participate aggressively in the development of the Utility Resolution Guide (URG) currently being developed by the owners group.

Progress and Summary of Changes - February 1, 1996 - July 31, 1996

Plans are being developed for the purpose of increasing design margin consistent with the Bulletin and Regulatory Guide identified above. Resources are being applied to the design and procurement of extended surface area passive strainers and the review of options related to minimizing material transport post LOCA. Pilgrim is active in the BWROG committee and intends to participate aggressively in the development of the Utility Resolution Guide (URG) currently being developed by the owners group. Based on the Bulletin/Regulatory Guide and the URG, Pilgrim will make modifications to increase design margin at the earliest possible scheduled outage of sufficient duration to implement the respective modification. Based on the analytical and test data currently available, Pilgrim's licensing basis, and the BWROG preliminary recommendations, we would expect to install extended surface area passive strainers in RFO 11. In addition, we are evaluating the potential of modifying susceptible insulation. Our required 180 day response to the Bulletin/Regulatory Guide will provide specific detail.

Progress and Summary of Changes - August 1, 1996 - January 31, 1997

There are no significant changes to the commitments identified or referenced above.

Pilgrim continues to move forward with the design and installation of passive, extended surface area ECCS suction strainers in RFO 11 (February 1997). The installation of the new strainers will increase design margin relative to the existing licensing basis. The new strainers will be installed per our design change process under 10CFR50.59 since the modification represents a design change improvement within our current licensing basis.

This modification may represent Pilgrim Station's final resolution of Bulletin 96-03. This determination will be made when the NRC formally approves either the BWROG Utility Resolution Guide (URG) or the Pilgrim specific design criteria. BECo Letter 97-012, dated February 7, 1997, also communicates this intent.

Pilgrim's request for schedule extension, BECo Letter 96-092, remains in place primarily due to the lack of approved generic design criteria relative to Bulletin 96-03 and the uncertainties relative to installation of the strainers in the suppression pool during RFO 11. NRC response to this request has not been received.

Progress and Summary of Changes - February 1, 1997 - July 31, 1997

New ECCS suction strainers were installed during RFO 11. Engineering is working on its analysis of the new strainers in accordance with Bulletin 96-03.

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

An AutoCad 3D drywell model has been developed for use in the LOCA debris generation and transport analysis. Bids have been solicited to obtain proposals for a debris generation/transport analysis as well as a strainer head loss analysis specific to Pilgrim. This work is to be done in conformance with RG 1.82, Rev. 2, and the BWROG URG including NRC SER Review Comments. Analysis work is expected to be completed by the end of 1998. However, there are related issues such as the GL on Coatings and GL97-04 on NPSH, which may affect Pilgrim's final Bulletin 96-03 Analysis and NRC submittal.

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

A Debris Generation/Transport and Strainer Head Loss Analysis for the new strainers is in progress. Preliminary results show that the available containment pressure is sufficient to provide the required ECCS pump NPSH with the new strainers. Pilgrim currently has an interim approval for a maximum containment overpressure of 2.5 psi. NRC approval to use additional overpressure due to LOCA debris buildup on the strainers will be required. The above analysis uses the BWROG URG methodology to show compliance with RG 1.82, Rev. 2. The assumption is made that the NRC will determine that the URG methodology is acceptable and issue an SER. If some parts of the URG are not approved, the analysis results may be affected. The current plan is to submit a final response to Bulletin 96-03 by the end of 1998 along with a request for approval of the required overpressure.

Progress and Summary of Changes - July 31, 1998 - January 31, 1999

Pilgrim submitted a summary report December 30, 1998 and requested a change to license January 21, 1999, raising allowed overpressure to 5 psig. Included in the January 21, 1999, request was a debris transport analysis for the new strainers based on the BWROG URG methodology showing compliance with RG 1.82, Rev 2.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

January 21, 1999, license change request was put on hold by NRC pending submittal of a revision based on new information. The revised license change request will be submitted by October 1, 1999.

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

The January 21, 1999, license change was withdrawn by letter dated September 23, 1999. A revised license change was submitted November 22, 1999, and is pending with the NRC.

ATTACHMENT 2

10 CFR 50.54 (f) RAI REGARDING ADEQUACY AND AVAILABILITY OF DESIGN BASES INFORMATION (LTP #728)

Commitment Description

In response to the NRC's request for information about the adequacy and availability of design bases information (reference 1), Pilgrim Station responded on February 10, 1997, (reference 2). On June 24, 1997, (reference 3), we supplemented this response to provide the preliminary scope of our evaluation of the UFSAR as committed in the reference 1 response. An additional supplemental response (reference 4) was submitted which affirmed design bases information activities to be undertaken at Pilgrim, as detailed in an enforcement conference at Region 1 Headquarters on November 21, 1997.

Elements of the planned activities include:

- Recover as design bases documents, the design and licensing bases for Pilgrim Station. Complete by December 31, 2001. (RC 97.0018.20)
- Retrieve and review the licensing correspondence docket file and identify UFSAR discrepancies or omissions. Complete by December 31, 1998. (RC 97.0018.21)
- Update the UFSAR, as appropriate, as each design basis document is completed. (RC 97.0018.22)
- Update the status of this effort with a letter and/or presentation to the NRC by March 31, 1998. (RC 97.0018.24, RC 97.0018.25) (Complete)
- Update the Standard Technical Specification conversion project schedule in accordance with the committed design and licensing bases documentation efforts. (RC 97.0018.23)

The objectives of the above activities are to organize, verify, and validate the Pilgrim design basis document information as appropriate, ensure plant procedures contain complete and accurate design information, and create a living document supported by a sound document maintenance program.

System design basis documents (DBDs) will be created for specified systems containing a consolidated summary of design basis values with explanations of the basis and relationship to design functions. The DBD will also provide the list of supporting references. Special DBDs will be developed for topical areas not associated with a specific system such as the accident analysis, radiological, and equipment qualification. The Special DBDs will state the design and licensing basis and explain the inputs, assumptions, and evaluations used to address the topical issue for Pilgrim Station. The overall scope includes system level documents and topical reports. System and topical reviews are prioritized based on risk significance in accordance with our Maintenance Rule program and IPE studies.

References

1) NRC letter dated October 9, 1996 Request for Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Bases Information.
2) BECo letter 2.97-014, dated February 10, 1997, Response to NRC 50.54(f) Letter Regarding Adequacy and Availability of Design Bases Information.
3) BECo letter 2.97-067, dated June 24, 1997, Follow-up Response to NRC 50.54(f) Letter Regarding Adequacy and Availability of Design Bases Information.
4) BECo letter 2.97.128, dated December 8, 1997, Supplemental Response to NRC 50.54(f) Letter Regarding Adequacy and Availability of Design Bases Information.
5) NRC letter dated November 24, 1998, AE Inspection Report 98-203.
6) BECo letter 2.99.005, dated January 26, 1999, Response to NRC Inspection Report 98-203.

ATTACHMENT 2

Commitment History/Progress

Progress and Summary of Changes - August 1, 1997 - January 31, 1998

A DBD program plan has been developed and is currently being finalized. The plan describes the work scope, priorities, processes, and responsibilities of the participating organizations and individuals. A presentation is planned at Region 1 Headquarters for March 10, 1998, to provide the latest status and project scope.

Progress and Summary of Changes - February 1, 1998 - July 31, 1998

- A presentation was made detailing the design basis and licensing basis program at Region I on March 10, 1998.
- The program plan has been finalized and approved.
- The writer's Guide for all Design Basis Document (DBD) production has been developed and is being used by vendors and in-house staff.
- A status update was provided to the Resident Inspector.
- A draft of the Emergency Diesel Generator DBD was completed and is currently under NUORG review.
- The project is working toward September 1998 for completion of the RBCCW and RHR DBDs. A NUORG review will follow.
- Digitization of all relevant records has been initiated and will, when completed, support more efficient DBD production.
- An open items tracking database has been developed.
- Work has been initiated on RCIC, HPCI, and ADS DBDs.
- Work has been initiated on a Topical Report for Internal Flooding, Missiles, and HELB analyses.

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

- A control process to ensure that engineering design calculations and their linkage to all end uses (i.e., procedures and Technical Specifications) are established and maintained current has been developed.
- Work continues on the following DBDs: RCIC, HPCI, ADS, CS, CRD.
- Work has been initiated on the AC and DC Distribution System DBD.
- Work has been initiated on the design basis accidents and transient events (DBAT) DBD.
- Input from the AE Inspection is being factored into the DBI Program as described in Reference 6.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

- Work continues on the following DBDs: RCIC, HPCI, ADS, CS, CRD, AC, DC, PCPS, and Primary Containment Structure.
- Work continues on the following topical reports: DBAT, Single Failure Criteria, Setpoint and Uncertainty Analysis, Radiological, and MOVs.
- DBDs will be published on the Pilgrim Station network in a read-only format and factored into the DBDs.
- DBI goals, objectives, and products are regularly discussed at quarterly engineering training sessions.

ATTACHMENT 2

Progress and Summary of Changes - August 1, 1999 – January 31, 2000

- Work continues on the production, review, and approval of system design basis documents and topical design basis documents.
- System and topical design basis documents are published on the Pilgrim network in a read-only format.
- Vertical slice validations have been completed for three-system design basis documents. No significant findings reported.
- Progress is on schedule.

ATTACHMENT 2

YEAR 2000 READINESS OF COMPUTER SYSTEMS AT NUCLEAR POWER PLANTS (GL 98-01) (LTP #766)

Commitment Description

GL 98-01 requires information of power plants Y2K Project progress and status. By August 7, 1998, a letter has to be issued to the NRC stating that a Y2K program is in place in conformance with industry guidelines.

By July 1, 1999, the status of meeting Y2K objectives and additional NRC-related tasks to be accomplished, must be reported to the NRC.

Reference

BECo letter 2.98.085, dated July 31, 1998, responds to GL 98-01.

Commitment History Progress

Progress and Summary of Changes - February 28, 1998 - July 31, 1998

A Year 2000 program has been setup at Pilgrim Station. Management has been made aware of the problem and is supporting the effort at the highest levels. Our initial inventory is complete, the assessment phase is 99% done, and a temporary procedure, TP98-011, has been written and issued to address testing. System owners have been assigned to every item in our data base which includes embedded systems.

The initial response letter to the NRC addressing the PNPS Y2K program was submitted on July 31, 1998.

Progress and Summary of Changes - August 1, 1998 - January 31, 1999

A Year 2000 program is in process at Pilgrim Station. Management at the highest level has been supporting the effort. Our initial inventory and assessment is complete and a temporary procedure, TP98-011, has been written and issued to address testing which is in progress. System Owners are working on completing the items in our Y2K data base which includes embedded systems. Plant systems are also being evaluated for Y2K impact. The Project was 44% complete as of January 31, 1999 and is expected to be complete by July 1, 1999.

The development of an integrated Contingency Plan is underway with team members from various disciplines throughout the organization.

Progress and Summary of Changes - February 1, 1999 - July 31, 1999

Project was completed with the July 25, 1999 (ENTG Ltr #2.99.065) response to Generic Letter 98-01. According to the terms outlined in GL 98-01, Pilgrim Station is "Y2K Ready"

Due to ongoing contingency planning, Item will remain open until 3/1/2000

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

Pilgrim Station successfully rolled over into the Year 2000 with only a few nuisance Y2K problems and they have been addressed. The Y2K Project will be totally complete after the leap year 2000.

ATTACHMENT 2

316A DEMONSTRATION AND ASSESSMENT OF ALTERNATIVE STRATEGIES TO REDUCE FISH LARVAE ENTRAINMENT AT INTAKE (SJ00-0001)

Commitment Description

September 10, 1999, Clean Water Act (§308) letter from US EPA requires the submittal of a CWA §316a & b Demonstrations as a condition for NPDES Permit renewal. Required submissions are as follows:

- Updated NPDES Application – no date
- 316 Demonstration progress report by January 1, 2000
- Final 316a & b Demonstration by March 1, 2000 (extended to April 1, 2000 per EPA letter of 1/28/00)

References:

1) ENGC Letter 5.99.130, NPDES Permit Renewal Application (12/1/99)
2) ENGC Letter 5.99.208, responds to required 1/1/00 Progress Report (12/27/99)
3) ENGC Letter ENV00-004, Request for Extension For Time For 316 Submittal (1/20/00)

Commitment History Progress

Progress and Summary of Changes - August 1, 1999 - January 31, 2000

The 316 Demonstration is being prepared and several meetings with the US EPA conducted. A consultant is assisting in the preparation and analyses to meet the regulatory requirements. Completion is expected by May, 2000.

ATTACHMENT 3

Long-Term Program (LTP) Schedule