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R. E. DENTON
GENERAL MANAGER
CALVERT CLIFFS

March 4, 1992

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Inspection Report 50-317/91-82 and 50-318/91-82
NRC Region I Integrated Performance Assessment Team Inspection

REFERENCE: (a) Letter from Mr. Charles W. Hehl (NRC) to Mr. G. C. Creel (BG&E), NRC Region I Integrated Performance Assessment Team Inspection Report 50-317/91-82 and 50-318/91-82, dated January 30, 1992

Gentlemen:

In response to Reference (a), Attachment (1) is provided outlining our planned actions to orrect the weaknesses identified during our Integrated Performance Assessment Team inspection.

Should you have any further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,

RED/CDS/bjd

Attachment

cc: D. A. Brune, Esquire
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ATTACHMENT (1)

RESPONSE TO NRC INSPECTION REPORT 50-317/91-82; 50-318/91-82

The cover letter to Nuclear Regulatory Commission (NRC) Inspection Report 50-317/91-82; 50-318/91-82 discusses the conclusions of the NRC Integrated Performance Assessment Team (IPAT). The IPAT concluded that Calvert Cliffs is being operated and maintained in a safe manner and has made substantial progress in correcting past performance problems. The cover letter also noted several weaknesses requiring attention and requested that we provide a written response outlining our planned actions to respond to them.

These cited weaknesses and our planned actions to respond to them are listed below.

1. The Process for Implementing 10 CFR 50.59. (URI 91-82-01)

IPAT Concern:

- Calvert Cliffs Instruction (CCI)-704, "Design Change and Modification Process," does not contain adequate guidance on preparing 10 CFR 50.59 screens and contains limited instructions for preparing adequate safety evaluations. A number of evaluation screens contained questionable justification.

- The Plant Operations and Safety Review Committee (POSRC) did not review a significant number of modifications to safety-related components as required by Technical Specifications as a result of two processes created by Baltimore Gas and Electric Company (BG&E) to screen certain modifications from POSRC review. BG&E also used the same two processes to screen proposed new procedures from POSRC review.

BG&E Response.

To address IPATs concern about the limited guidance within CCI-704, Design Engineering issued additional guidance on 50.59 screening and review. It provides that:

- Screens must document a more detailed discussion of why the change does not impact design, function, or method of any structure, system, or component (SSC) described in the Safety Analysis Report (SAR).

- A re-emphasis that NSAC-125, "Guidelines, for 10 CFR 50.59 Safety Evaluations," is the guidance that should be used for 50.59 screens and that Design Engineering Section engineers should refamilarize themselves with this guidance.

Additional planned actions concerning 10 CFR 50.59 screens include:

- A formal training program on 50.59 processes in accordance with NSAC-125 guidelines planned for 1992 will incorporate the IPAT concerns. This training will be mandatory for all personnel qualified to perform 50.59 screens and safety evaluations.

- Procedures requiring upgraded guidance will be revised in conjunction with the above training. The revisions will be coordinated with the training development to provide an integrated approach to upgrading 50.59 screening quality.

Based on the concerns expressed by the IPAT team during the inspection, regarding POSRC review of modifications, we issued a revised policy and restated management expectations

regarding screening of modifications to plant systems and equipment. We required that this screening process include the following:

- all 50.59 analyses continue to be reviewed by POSRC;
- all proposed modifications to safety-related systems or equipment be reviewed by POSRC;
- all other proposed modifications continue to be screened by our Design Engineering Section, and those that potentially affect nuclear safety be presented to POSRC.

These measures were incorporated into the Design Engineering guidance already discussed. Final procedural revisions modifying the criteria for POSRC review will be made in conjunction with the training and revisions noted above. An evaluation of our procedures screening criteria is being done concurrently with the modifications process.

To address concerns regarding our past methods of screening/review, POSRC has reviewed 20 percent of all modifications to safety-related systems or equipment which were previously screened from POSRC review in 1991 for their effect on nuclear safety. This review found no adverse safety significant items and we have concluded that additional sampling and review of past modifications is unnecessary.

2. **Operability Evaluations. (URI 91-82-02)**

IPAT Concern:

- The licensee's technical staff was weak in their thoroughness, timeliness, and rigor in evaluating the operability impact of unexpected or degraded conditions, particularly for those cases that needed expanded engineering analysis to support an operability decision. The five examples cited were: (1) service water support bolting, (2) service water heat exchanger support lamination, (3) anubar sensing element installation, (4) pressure instrument mounting, and (5) snubber removal at power.

BG&E Response.

We evaluated the IPATs observations and found that they fell in three categories:

- non-recognition or late recognition of a deficient condition which could affect operability,
- maintenance practices with unrecognized effects on operability, and
- poorly documented operability assessments.

We concur that these areas require improvements. As stated in the inspection report, we conducted retraining for technical staff personnel during the week of December 9, 1991. We additionally restated expectations on how to document interim operability determinations. These were effective short term measures which addressed the areas of concern.

Our long-term efforts to improve operability assessments center on our Issue Report system. We have established a low threshold for initiation of Issue Reports. The applicable

instruction (CCI-169) defines issues in a manner intended to cause all operability concerns to be promptly documented and elevated to appropriate management attention. Staff training was conducted to reinforce this expectation. In assessing Issue Report generation, we have found that most concerns are being appropriately documented. Over 200 Issue Reports are typically written each month. Significant operability concerns have been promptly investigated and evaluated. We have continuously monitored the use of our Issue Report system to find ways to better clarify guidance on reporting and to correct any process problems.

One occasional problem area has been delay in submittal of Issue Reports by the reviewing supervisor to the Issues Assessment Unit. We have revised CCI-169 to incorporate a three working day limit for forwarding Issue Reports to the Issues Assessment Unit. We are currently monitoring the time delay between initiation and receipt by Issues Assessment Unit to correct any continuing problems. Establishment of this expectation has improved the timeliness of Issue Report submittal.

In the area of maintenance which can potentially affect operability of Technical Specification equipment, we have continued our program to use a Quarterly System Schedule to reduce equipment unavailability due to maintenance. Additionally, we have reinforced to supervisors the necessity to report deficient conditions resulting from or discovered during maintenance via Issue Reports. These measures address the type of issues raised by the IPAT regarding our pressure instrument mounting and snubber maintenance.

We have carefully evaluated the guidance of Generic Letter 91-18 on operability determinations, and we conducted training on it during the IPAT inspection. It has been useful as a guide when documenting engineering assessments of interim operating conditions, and we have noted improvements in the quality of these records. By requiring better documentation of the rationale for continued operability, we are also able to ensure the evaluation is adequately rigorous.

We will include operability considerations of degraded conditions in our continuing training program to strengthen the site's understanding and to incorporate lessons learned from reviewing our Issue Report effectiveness. We are additionally evaluating procedures which could be modified or created to enhance the identification and assessment of operability concerns based on the Generic Letter guidance. These efforts, taken in conjunction with our previous improvements to our Issue Report process, will strengthen our ability to conduct timely, thorough evaluations of unexpected and degraded conditions in a manner commensurate with their safety significance.

3. **Issue Report Resolution Timeliness. (URI 91-82-03)**

IPAT Concern:

- The licensee did not demonstrate that necessary managerial controls and oversight were in place to ensure that the responsible organization was accountable for resolving their IRs in a timely fashion. The Quality Assurance Department (QAD) has limited authority to affect IR resolution timeliness and they perform limited reviews of IR resolution adequacy. As a result, the IR backlog is increasing.

BG&E Response.

We have reviewed the concern regarding the managerial controls and oversight of the resolution phase of our IR process, and we concur that improvements are necessary. As the inspection report noted, our own assessment efforts had already identified concerns regarding IR resolution. Effective corrective action requires three main elements -- setting expectations, measuring results, and holding supervisors accountable for their results. The deficiency noted by IPAT resulted primarily from poor measurement of results. We failed to fully anticipate the effects of the process changes instituted in August 1991 on the management indicators in use for monitoring corrective action efficiency. A significant portion of the plant's activities were removed from management's standard reports. To strengthen the Issue Report resolution, we have taken the following action:

- We have directed reports to line management on all IR activities. This will correct the omission of the lower-tier (Level 2) IR activities from management attention which resulted from our process change. Section-level reports have been directed for all organizations with substantial numbers of action items. These reports will enable line management to identify areas in which issue resolution is falling behind the pace of issue identification so that appropriate action to reverse the trend can be taken.

- We have identified a change to the way we enter IR data on Action Item Tracking (AIT) which will improve our ability to readily analyze this data while at the same time reducing the administrative workload devoted to IR activity. This will also better standardize the way data is entered on AIT to eliminate some reporting anomalies which inhibited meaningful analysis. We expect to implement this change by June 1, 1992.

These two measures will provide the necessary information for management to assess timeliness of Issue Report resolution. With these improved reports, we will be able to effectively establish the appropriate expectations and to enforce the accountability to ensure that activities are resolved promptly.

The IPAT team expressed concern that the QAD had limited authority to affect IR resolution timeliness and perform limited reviews of IR resolution adequacy, and that as a result the IR backlog is increasing. While we understand the team's concern, we believe that we have effective measures in place to accomplish the desired result, although we differ from the approach suggested by the IPAT Unresolved Item. BG&E holds line management accountable for the prioritization and timely accomplishment of its activities. Line supervisors are responsible for understanding the importance of issues and assigning their resources to ensure that safety and quality are achieved. Issues determined to be nuclear safety significant through our IR assessment process are presented to POSRC. POSRC has the opportunity to recommend action due dates to the Plant General Manager as they deem appropriate. This serves to back up the line organization's prioritization judgement.

Quality Assurance has an active role in evaluating line organization issue resolution through its surveillance and audit activities. This was exemplified by the surveillance noted by the IPAT as having raised concerns to management about the effectiveness of the IR process during the first three months after process revision. Quality Assurance Department also reviews the resolution of all nuclear safety significant IRs to verify the adequacy of corrective actions.

Our Operating Experience Review (OER) organization also reviews the corrective action process, and its report to management was also noted by the IPAT. Frequent, independent feedback from QAD and OER is especially important in this early phase of implementation of our current IR process, and we have continued to follow-up with additional assessments since the IPAT. We will pay close attention to their findings and utilize appropriate accountability measures or process changes as necessary to correct noted deficiencies. We believe that safety and quality is optimized by this approach.

We have continued to watch and analyze our Action Item Tracking data to assess the concern of increasing IR backlog. At the time of the inspection, the team noted that the number of open Action Items created by IRs had increased for the four months since the revised process' implementation. Data for the months of December and January show a level trend of the same data -- that is, as many Action Items were closed as were opened. Other indicators, however, show that we have not achieved an equilibrium. We remain concerned about the potential for a large backlog of issues. As we continue to refine management reports, we will be able to respond appropriately to ensure that we achieve prompt, effective resolution of IRs.

4. **Technical Adequacy of and Adherence of Surveillance Test Procedures. (URI 91-82-04 and 05)**

IPAT Concern:

- Technical Adequacy of Test Procedures.

  Surveillance Test Procedure (STP) 0-10-0, "Spent Fuel Pool (SFP) Ventilation System Monthly Test," did not effectively verify flow through each of the redundant parallel charcoal filter trains. Operating Instruction (OI)-3B, "Shutdown Cooling Unit-1," which is part of BG&Es IST Program, did not ensure that certain valves were operated using their reach rods from their remote handwheel as would be required during an emergency.

- STP Procedure Adherence.

  During performance of STP F-77-0, "Staggered Test of Diesel Fire Pump," personnel started the diesel-driven fire pump locally rather than from the Control Room as stated in the procedure.

BG&E Response.

We have evaluated each of the surveillance examples identified by the IPAT.

In the case of the Spent Fuel Pool charcoal filter testing, our internal technical adequacy review prior to the IPAT had reviewed this procedure. Its concluded the STP adequately implemented the Technical Specification requirement, but additional data should be taken during the test which would enhance our ability to detect certain damper linkage failure modes. We have scheduled the data collection to support revision of the STP by June 1992. Our assessment appears consistent with the IPAT's concern, and we intend to continue with our original revision plan.

With regard to the other technical adequacy question, subsequent to the inspection we found that the valves identified by IPAT as not being operated from their remote handwheels as part of OI-3B are lubricated at each refueling outage under our Preventive Maintenance (PM) program. The PMs also direct the valves be operated remotely if operating conditions permit. We will revise OI-3B to require these valves to be remotely operated in the future. We reviewed our program for other manual valves with similar requirements. None were found. We believe this resolves this issue.

Our investigation into the error during performance of STP F-077-0 determined the cause to be human error. The technician was properly trained and had successfully performed the test on previous occasions. At the time of the NRC observed test, he misread a clarifying note in the STP as a performance step. The note stated that the test coordinator may use the local handswitch to start the pump if the Control Room switch could not be used. The test sequence and procedures were reviewed to determine if they should be revised. We concluded that the procedures are clearly written and comply with our Writer's Guide format requirements. We have not observed similar errors in our self-assessment observations of surveillances, and we believe that this was an isolated instance. We have counselled the technician involved, and we will be alert for any further instances in our continued job observation program.

Over the past several years, we have expended a great deal of effort towards the strengthening of the STP program. The IPAT acknowledged the proper use and adherence to STPs in the Control Room. The IPAT also acknowledged that we implemented adequate measures to correct the problems identified in two LERs attributed in part to either inadequate procedural guidance or adherence. Our assessment, including IPATs observations, is that implementation of past corrective actions has been effective in upgrading our surveillance performance and that no additional large-scale actions are warranted in this area. We will continue to assess our performance in this area.