COMMENTS ON NRC STAFF RESPONSES TO QUESTIONS FROM UDALL COMMITTEE CONCERNING TMI-2 CLEANUP

PREPARED FOR

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BY

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INTRODUCTION

In early November of 1984, the NRC released a group of documents prepared in response to a series of questions posed to the NRC by Dr. Henry Myers, a congressional subcommittee staff member.[1] Philip R. Clark, President of GPU Nuclear Corp., requested that I review the NRC material and provide him with my comments.

Myers' questions all relate to the preparation and contents of SECY-84-36, the background of which requires some explanation. SECY-84-36 is a ten-page document submitted to the NRC Commissioners by William Dircks, Executive Director for Operations. Its purpose is to present the staff's views on an OI report issued on September 1, 1983, dealing with OI's investigation of the King, Parks and Gischel allegations that cleanup operations at TMI-2 were being performed unsafely.

In SECY-84-36, the staff found that a number of procedural violations had occurred during the TMI-2 cleanup effort. They described the cause of those violations as "certain management control deficiencies which have been and will continue to be addressed by the staff and the licensee." The staff also found "no evidence of deliberate circumvention of administrative procedures."[2]

Among the questions posed by Myers were whether the NRC Office of Investigations (OI) agreed with the staff's statement in SECY-84-36, "that there was no evidence of deliberate circumvention of administrative procedures to avoid technical requirements" and whether OI believed this statement "should be rephrased to more accurately represent the OI findings with respect to the extent of evidence indicating whether circumvention of procedures was deliberate."[3]

During the NRC's efforts to prepare a response to Myers' questions, the staff modified its findings. That change is described in a memorandum from Dircks to the Commissioners dated October 29, 1984. In his memorandum, Dircks states that on October 18, 1984, the staff was advised by OI that in OI's view, "TMI-2 senior personnel were aware of the need to comply with GPUN administrative procedures; they did not do so in all cases even though they were evidently aware that such compliance was an NRC requirement; the circumvention of requirements was at least to some degree deliberate; and their motivation appeared to be expediency not confusion." On the basis of this OI conclusion, the staff decided to "supersede the relevant staff views previously provided in SECY-84-36."[4]

The only explanation for the staff's change of position appears to be a new OI analysis of the same evidence that had

been previously discussed in OI's September 1, 1983, report. The new OI analysis comprises three documents. The first is a memorandum by Ben B. Hayes, Director, Office of Investigations, dated October 18, 1984, addressed to Dircks (Hayes memorandum). The second is a three-page memorandum entitled "Summary of OI Analysis" (OI Summary). That document incorporates by general reference the third document entitled, "Annotated Index of Related Documents/Statements"(OI Index). It consists of seven pages containing 36 numbered paragraphs, each describing evidence gathered by OI in the form of documents and statements of witnesses. The three OI documents are not cross-referenced. That is, although the OI Summary states that the OI Index includes all of the documents reviewed, little attempt has been made to explain how any specific document or testimony has been utilized by OI in its analysis.

Both the Hayes memorandum and the OI Summary make only limited references to specific documents and make no reference to specific testimony. No names are used except for King, Parks and Gische. Imprecise phrases, such as "TMI-2 personnel," are the only identification of individuals whose conduct is being discussed. As a result, it is difficult to match document descriptions and testimonial references in the Hayes memorandum and OI Summary with the evidence cited in the OI Index.

ISSUES

OI's conclusions in response to the questions raised by Myers are not clear. Hayes identifies two issues to be resolved. The first is whether any evidence exists of deliberate circumvention of administrative procedures. The second is whether procedural violations were "more the result of confusion than deliberateness" (emphasis added).[5]

The first issue imposes the lowest possible analytical burden on OI. That is, if any evidence exists implying that any individual involved in the TMI-2 cleanup knew of procedural requirements which he then violated, the staff's statement that there was "no evidence" of deliberate circumvention would be incorrect. At the point where such evidence is identified, the analysis can end. No effort need be made to consider it in the context of other evidence.

The second issue requires a balancing of the evidence by OI and a finding of whether procedural violations were more probably caused by confusion or by deliberate intent. Rather than focusing on the intent of the individual, this latter issue requires finding the predominant attitude among management at TMI-2. In order to resolve this issue, it is

necessary to examine the knowledge and conduct of many individuals at various levels of management.

The Hayes memorandum spends considerable time explaining that it is responding to the first issue, and its conclusions appear to be responsive to that issue. That is, Hayes states, "circumvention of the required administrative procedures by TMI-2 personnel was at least to some degree deliberate" (emphasis added).[6] He does not speciiy which TMI-2 personnel he is talking about, nor does he indicate to what degree their conduct was deliberate. Toward the end of his memorandum, Hayes summarizes his findings by saying, "TMI-2 senior personnel were aware of the need to comply with the GPUN administrative procedures" and "did not do so in all cases."[7] Again, he does not identify the personnel to whom he is referring or how many cases he has found. These conclusions suggest that once Hayes found any evidence that implied that any TMI-2 employee may have intentionally violated procedures, he had to disagree with the staff's finding.

Hayes also makes general statements that suggest he has reached conclusions on the second issue, i.e., he has weighed the evidence to determine the predominant motivation for procedural violations within the TMI-2 organization. However, his discussion of the evidence he considered, and the

conclusion he reached, is vague. His reasoning starts with an "assumption" that GPUN and Bechtel personnel knew of the requirement to follow GPUN procedures. He then states that his "assumption is strengthened" by documentary evidence that "senior GPUN/Bechtel managers were aware not only of the requirements, but the fact that Bechtel was not complying with them."[8] He notes that the "evidence also indicated" that Bechtel felt that administrative procedures were too cumbersome. Finally, he reaches the conclusion that "this [Bechtel's attitude toward procedures] coupled with testimonial evidence supports, in our view, our conclusion that this circumvention was motivated primarily by expediency."[9] Hayes does not describe his reasoning process in any more detail.

The OI Summary also contains findings that appear to relate to both issues. At one point it states that they have found a "considerable amount of evidence indicating that circumvention of procedures was willfull."[10] Although this suggests that the amount of evidence found is more than a bare minimum, there is no attempt at this point in the OI Summary to balance evidence of willfullness with any other evidence. Therefore, this conclusion appears responsive to the first issue. However, in the next sentence OI states, "the weight of the evidence indicates that the circumvention was a deliberate decision apparently based on a sense of expediency and was

largely unaffected by confusion." (emphasis added).[11] This statement suggests that they have engaged in a balancing process and have concluded that the overall corporate intent at TMI-2 was that procedures should be violated for the sake of expediency.

It is unclear how the analysis of the two issues by OI has influenced the NRC Staff's revised findings in SECY-84-36. Both OI and the staff now agree that some evidence of deliberate circumvention of procedures exists. However, it is not clear what either of them has concluded regarding the extent and magnitude of the violations or the identities of those involved. If the staff has now determined that the weight of the evidence establishes that the predominant attitude among TMI-2 management was toleration of procedural violations, it is a significant change in the staff's findings. The NRC documents do not make it clear whether such a major change in the staff's conclusions was intended or whether the staff has simply recognized that its categorical phrase, "no evidence," was somewhat overstated.

In order to analyze whether the staff has found an evidentiary basis to make a fundamental change in its conclusions, I will attempt to identify each piece of evidence relied upon by Hayes and the OI Summary, and I will discuss its

significance as an indication of the overall intent of TMI-2 management. My conclusion is that OI has not presented evidence to support a conclusion that the prevailing attitude among TMI-2 management was to tolerate procedural violations. Therefore, I do not believe that the staff could have found a sufficient basis in the OI analysis to have significantly altered its findings in SECY-84-36.

In preparing these comments, I have reviewed the documentary and testimonial evidence which is cited in the OI Index. I have also reviewed evidence gathered under my supervision during the preparation of a report issued November 16, 1983, entitled "TMI-2 Report/Management and Safety Allegations" (Stier Report). That report dealt with many of the same issues addressed in the OI material, and I will refer to it to the extent that it is of assistance in evaluating the OI evidence.[12]

EVIDENCE CITED BY OI

Hayes Memorandum

While the NRC documents imply that GPUN Management as a whole tolerated the procedural violations described above, the evidence they cite does not support such a conclusion. In his memorandum, Hayes states the proposition, "senior GPUN/Bechtel managers" were aware of procedural requirements and "that Bechtel was not complying with them."[13] He then cites a memorandum written by a "senior GPUN manager" addressed to Bechtel "noting that 1) Bechtel was not complying with these procedures and 2) that they must do so." The Hayes memorandum goes on to state that a written response was received from Bechtel promising to follow GPUN procedures, but they did not, in fact, do so.[14] The implication is that these documents are evidence that the "senior GPUN manager" was aware that his directive was not being followed.

In attempting to identify the specific document to which Hayes refers, I have found two possibilities. Hayes may be referring to a letter, rather than a memorandum, written by M. Kenneth Pastor, Recovery Programs Operations and Construction Director, TMI-2, on February 23, 1982, to David M. Lake, Field Construction Manager for Bechtel.[15] In the letter, Pastor identifies the GPUN procedures which have to be followed by

Bechtel during cleanup work at TMI-2. He states that if they "are not already doing so," they should "begin complying with them." The tone of the letter suggests that it is intended to assist Bechtel in understanding which GPUN procedures apply rather than to criticize them for violating procedures. Although a response was sent by Lake to Pastor on June 29, 1982, indicating that GPUN procedures would be followed, [16] this exchange of correspondence does not appear to fit Hayes' description that Bechtel's failure to comply with GPUN procedures was noted in the GPUN "memorandum."

The other document to which Hayes may be referring is a memorandum written by John Barton, then Deputy Director of TMI-2, to Lake on August 26, 1982.[17] In this memorandum, Barton notes that there had been a number of procedural violations by Bechtel and that such conduct was unacceptable to GPUN. Barton specifically refers to procedures that had been revised to permit Bechtel to perform maintenance work. This memorandum not only identifies specific violations, but it expresses the clear intent of TMI-2 management in August 1982 that GPUN procedures should be followed. While this document appears to fit the description in the Hayes memorandum, it is omitted from the OI Index listing all of the evidence OI considered and therefore may not be the memorandum to which Hayes was referring.[18]

Although both documents place Bechtel personnel on notice that GPUN procedures apply to cleanup activities, neither relates to the polar crane refurbishment project. Nothing in the documents shows any awareness on the part of Barton or Pastor that the procedural violations that occurred later in that project were likely to take place. Indeed, both documents served to reinforce GPUN's policy and to clarify procedural requirements. The Barton memorandum even refers to the specific procedure which was used to authorize Bechtel to undertake the polar crane refurbishment project during the preceding month. Neither of the documents, absent additional evidence, can support the inference that either its author or TMI-2 management as a whole was less than sincere in attempting to assure compliance with GPUN procedures.

The remaining evidentiary references supporting the Hayes memorandum cannot be specifically identified. Hayes cites "assumption", "memoranda and Quality Assurance Reports," "evidence," and "testimonial evidence" without further description. Presumably, these phrases refer to evidence more specifically identified in the OI Summary and OI Index. Therefore, the evidentiary basis of the Hayes memorandum cannot be analyzed further without turning to the evidence cited in the OI Summary and Index.

OI Summary and Index

The first references to evidence in the OI Summary establish the requirement that GPUN administrative procedures be followed for cleanup activities at TMI-2. OI cites the GPUN/Bechtel contract[19] and the letters from Pastor to Lake of February 23, 1982,[20] and from Lake to Pastor dated June 29, 1982, in response. These latter two documents were briefly discussed earlier in connection with the Hayes memorandum and are unquestionably evidence that GPUN advised representatives of Bechtel that procedures approved by GPUN would be required for all work during the cleanup at TMI-2. I have no disagreement with the way this evidence is used in the OI Summary.

The first reference in the OI Summary to evidence that TMI-2 management was made aware that procedural violations were occurring is the statement, "notwithstanding this agreement [to follow GPUN approved procedures] senior TMI-2 management was repeatedly advised that administrative procedures (AP) 1043 and 1047 were being circumvented."[21] In support of this proposition, OI cites "three quality assurance reports." It does not further identify these documents.

I have reviewed all of the documents identified in the OI Index and have found ten emanating from QA. In order to

determine whether any of these documents fit the description in the OI Summary, they will be discussed individually.

OI INDEX #3 - Letter sent to Bechtel's QA manager advising that Bechtel's QA manual had been approved by GPUN. The letter once again confirms that GPUN Technical Specifications apply to the work Bechtel would perform at TMI-2. Nothing in the letter suggests that GPUN QA was aware of violations of AP 1043 or 1047.

OI INDEX #6 - Monthly report dated May 1982, prepared by GPUN QA for TMI-2 management, describing QA activities during the prior month.[22] The OI Index makes two important comments about this report: first, that a Stop Work Notice was initiated by QA on May 21, 1982, because of violations of administrative controls; second, "management at TMI-II appear to have the attitude toward administrative control programs, that it takes too long to get work authorizations approved and into the field." The implication of the second comment is that, according to OI, QA is pointing out an improper attitude on the part of TMI-2 management.

In fact, this monthly assessment says something significantly different from OI's description of it.

The report notes that a Stop Work Notice had been initiated but goes on to say, "the Stop Work Notice was not issued as Unit Management took immediate action in stopping activities being conducted in the field that had been identified by QA as well as several others discovered during the meeting on the problem." The report then describes the action taken to correct the situation. Finally, the QA Report states the following:

> As the real source of the problem appears to be an attitude that Administrative Control Programs take too long to get work authorizations approved and into the field, Unit Management has committed to investigate and evaluate the present programs so that recommendations can be made and implemented which will allow QA Program compliance but still meet the schedule needs for timely and efficient work completion. QA will track this committment and support it but present programs must be complied with until the changes are made.[23]

The clear import of this QA Report is that TMI-2 management has been cooperative in trying to bring about procedural compliance. Nothing in this report criticizes TMI-2 management or suggests any inadequacy in its attitude toward procedural compliance. Furthermore, this QA Report does not suggest that violations of AP 1043 or 1047 had been uncovered.

OI INDEX #9 - Quality Deficiency Report (QDR) dated August 9, 1982.[24] Although it describes violations of administrative procedures which occurred during the "Quick Look" project, none of the procedures violated is identified as AP 1043 or 1047. However, the issue of the proper use of Bechtel work packages is raised. It was the improper use of work packages during the polar crane refurbishment project that constituted the majority of procedural violations.

As part of the QDR, QA included a memorandum sent by Pastor to B. E. Ballard, Manager of TMI QA, dated July 13, 1982. It discusses in detail the appropriate use of Bechtel work packages as supplementary instructions on the performance of work authorized under GPUN procedures.[25] Pastor explains that work packages are permitted under GPUN procedure ADM 3240.1, "Access to and Work in Containment," as a means of defining detailed instructions to carry out work under a job ticket or an Engineering Change Memorandum (ECM), depending on whether the task is a maintenance task or a modification to a plant system or component. The Pastor memorandum goes on to say that organizational changes and changes in administrative procedures were then taking place and that, as a result, the appropriate use of work packages would be defined more precisely.

OI INDEX #10 - QA monthly assessment for August, 1982.[26] The report discusses the QDR described above and recommends that the administrative and procedural changes mentioned by Pastor in his July 13, 1982, memorandum should be undertaken as soon as possible. No mention is made in this report of violations of AP 1043 or 1047. The implication in this report is that procedural uncertainty concerning the appropriate use of work packages is being resolved.

OI INDEX #12 - Monthly QA assessment for October, 1982.[27] Two significant problems raised in this report were mentioned in the OI Index. First, OI notes that confusion existed concerning proper safety classifications of plant systems and components. The QA monthly assessment correctly suggests that the solution to that problem is the development of an updated Quality Classification List (QCL). Bahman Kanga, who had recently been appointed TMI-2 Director, ordered the completion of that list which ultimately contributed significantly to the solution of the misclassification problem.

The second problem pointed out by OI is that a "Stop Work condition" existed because of a failure to

obtain engineering documentation and work authorizations prior to the performance of certain work. QA notes that work had been undertaken on the basis of verbal instructions from engineering. QA describes a meeting held at TMI-2 with management and states that "acceptable corrective action was taken." QA explains that the corrective action was a temporary solution and that efforts were underway to find a permanent solution to the problem. The clear implication in this report is that management had been responsive to concerns raised by QA that procedures were not properly being followed.

OI INDEX #17 - Memorandum prepared by Ballard for Kanga at Kanga's instructions to review the activities relating to the refurbishment of the polar crane.[28] It is dated February 23, 1983, and mentions for the first time, among the documents cited by OI, that modifications had been made without proper procedural authorization.

OI INDEX #18 - QA comment on the Polar Crane Load Test procedure.[29] It points up a number of deficiencies in the draft procedure which was being circulated for review and comment in late February 1983.

OI INDEX #20 - QA monthly assessment for February 1983, containing a description of the review of polar crane refurbishment that had been ordered by Kanga.[30] The report states:

> Quality Assurance has reviewed the Polar Crane Load Test Safety Evaluation and has provided comments to the Director Unit 2. QA will also be reviewing the completed document packages for Polar Crane refurbishment, prior to Load Test, to verify acceptability of modifications, replaced material, inspections and tests that have been performed. Quality Control has witnessed the operational (no load) test which was performed satisfactory.[31]

This report discusses generally the problem of procedural compliance and notes that the Unit Work Instruction (UWI) system for documenting work should help alleviate the problem of procedural compliance.

OI INDEX #23 - Quality Deficiency Report (QDR) issued by QA on March 8, 1983, for violations of procedures during several modifications of the polar crane.[32]

OI INDEX #24 - Memorandum from Ballard to Thiesing dated March 10, 1983, describing in further detail the results of QA's review of polar crane refurbishment activities.[33]

It is apparent from the review of all of the QA documents cited by OI in its Index that among the first five documents there is no reference to violations of AP 1043 or 1047 which were brought to the attention of management. References in those documents to violations uncovered by QA suggest that management had been working cooperatively with QA to resolve not only the specific problems brought to its attention, but also the underlying causes of those problems.

The last five documents identified by OI all were issued following Kanga's instructions to QA in February 1983 to review the polar crane refurbishment and to determine whether there had been procedural compliance. All of those documents were prepared in late February and March, 1983, during which time the violations were identified, and corrective action was taken by TMI-2 management. Certainly these documents do not suggest that the prevailing attitude within TMI-2 management was toleration of procedural violations. Therefore, the QA references in the OI Index do not support the proposition for which they were cited in the OI Summary.

Immediately after the discussion of QA reports to TMI-2 management that procedures AP 1043 and 1047 were being circumvented, the OI summary states, "Note also that Messrs.

Parks, King, and Gischel had repeatedly pointed out the need to comply with these procedures, but their attempts to correct the condition were rebuffed."[34] The OI Index contains numerous references to statements made by King, Parks, and Gischel in paragraphs 27 through 30. I have reviewed each of those references. They include not only factual allegations by King, Parks, and Gischel, but also a great deal of their speculation and opinion. OI makes no attempt to distinguish between factual allegations and opinion, nor do they indicate which factual allegations have been verified by independent investigation and which have not. After investigating the allegations of King, Parks and Gischel, it has become clear that their statements cannot be accepted at face value. As we observed in our report:

> It has been essential in this investigation to review carefully each source of information relied upon by King, Parks, Gischel, and Wenger. Many have been found to be misrepresented in the allegations. The sworn testimony of many witnesses refutes the statements attributed to them in the allegations. In some instances, the contents of documents have been distorted. Therefore, to understand the underlying facts accurately, it is necessary to turn to the original sources of information and not rely upon the contents of the allegations for factual information.
>
> It is equally important to recognize that inferences drawn by King, Parks, Gischel, and Wenger are based upon a presumption that GPUN and Bechtel operated in bad faith. The willingness of King, Parks, Gischel, and Wenger to infer wrongdoing at times from the most meager of facts has made it difficult to rely on their perceptions in evaluating the evidence we have gathered.[35]

I have attempted to sort out from among OI's references to Parks, King, and Gischel, those which might be construed as factual allegations concerning violations of AP 1043 and 1047 and will describe briefly the evidence uncovered by our investigation of those allegations.[36]

It is alleged by Parks that key members of TMI-2 management expressed the view that the ECM procedure was too cumbersome and, therefore, they advocated circumventing the procedure in order to expedite the cleanup work. During our investigation, we interviewed all of the individuals cited by Parks as either expressing that view or being present when it was discussed. The testimony makes it clear that although there were discussions about the slowness of the ECM approval process, no one advocated circumventing required GPUN procedures. Rather, they discussed the development of a new procedure that would expedite approval of modifications.[37]

While employed at TMI-2, Parks did criticize the polar crane refurbishment project for violating AP 1043 and 1047. When Parks raised those concerns with management, Kanga immediately initiated a QA review of polar crane refurbishment. That study resulted in a finding that violations had occurred. Although members of the Recovery Programs Department did not agree with Parks' criticisms of the

procedures followed during polar crane refurbishment, ultimately QA and Kanga required Recovery Programs to remedy the procedural deficiencies that had occurred.[38]

None of the references to King deal with expressions of concern by him that AP 1043 or 1047 were being violated during polar crane refurbishment. Rather, they deal with the adequacy of the polar crane load test safety evaluation report. Specificially, it was King's contention based on Gischel's analysis of that safety evaluation report that ANSI Standards were not complied with in the design of the polar crane load test. None of King's general claims that management was unconcerned about procedural compliance are based on specific, factual allegations that can be readily investigated.

Like King, Gischel did not make specific claims that procedures AP 1043 or 1047 were violated, nor did he contend that he ever raised such claims with TMI-2 management. Gischel's concerns were in two categories. First, he argued that the polar crane load test safety evaluation report failed to conform to ANSI Standards. Second, Gischel alleged that modifications were being misclassified as "Not Important To Safety" when they should have been classified as "Important To Safety."

When the sweeping, unspecific allegations made by King, Parks and Gischel are carefully analyzed, it is clear that only Parks pointed out the violations of AP 1043 and 1047. This occurred in February 1983, and Parks' criticisms were quickly confirmed and resolved. Therefore, I do not find support in the material cited by OI in its Index for the assertion that King, Parks and Gischel repeatedly raised concerns about violation of AP 1043 or 1047 that were rebuffed by management.

After stating that the complaints were made by King, Parks and Gischel that procedures were being violated, OI states, "Indeed, there is considerable evidence that employees who attempted to raise these concerns were subjected to harassment, transferred, or otherwise pressured by management." (emphasis added)[39] Our investigation dealt extensively with the allegations that King and Gischel were subjected to harassment, and we concluded that they were not.[40] Although we did not investigate the allegations that Parks was subjected to harassment, several of his specific claims concerning reprisals for expressing safety concerns were investigated. In those instances, the evidence indicated that the action taken against Parks was not motivated by an intent to discourage him from raising concerns about procedural violations.[41]

The NRC Staff in NUREG 0680, Supp. 5, discusses at great length the claims that King, Parks and Gischel were subjected

to harassment.[42] Although they found that acts of harassment were directed against Parks, the NRC Staff concludes that neither Gischel nor King was harassed. The author of NUREG 0680, Supp. 5, has stated before the NRC Advisory Panel on TMI-2 Cleanup that OI is in agreement with the staff's conclusions on harassment. In view of the NRC Staff findings on harassment, and the fact that no additional evidence has been cited, the sweeping statement in the OI Summary regarding the attitude of TMI-2 management is weakened significantly.

The OI Summary next states, "There is also evidence that there was a conscious decision by TMI-2 officials to circumvent these procedures."[43] OI cites two examples to support this statement: first, that a decision was made following the TMI-2 accident that design reviews would be eliminated; and second, that the minutes of a March 4, 1983, Test Working Group (TWG) meeting refer to a modification which was to be made in advance of an ECM for the sake of expediency.[44] Neither of the examples cited by OI supports the general proposition that, "a conscious decision" was made by "TMI-2 officials" that procedures were to be circumvented.[45]

The decision to eliminate design review was made immediately after the accident in order to permit work to be performed without delay in a time of crisis.[46] The decision

was made openly with the knowledge of the NRC. The policy was discontinued in April, 1981. At that time, QA felt that the policy was no longer necessary and issued two QDR's requiring that all modifications made subsequent to the accident be reviewed and design verification be performed where necessary. Management never concealed or denied the decision to eliminate design review. Nothing in the evidence suggests that a similar decision was made in connection with the polar crane refurbishment project. On the contrary, the evidence indicates that GPUN management expressed the intent that there be strict compliance with all procedural requirements including those governing modifications.

In describing the second example, the OI Summary states, "The theme of expediency is touched upon also in the minutes of a Test Working Group meeting held on March 4, 1983. These document a consensus regarding the applicability of AP 1047. However, the minutes further indicate that a modification of the polar crane would take place in advance of Engineering Change Memorandum (ECM) approval for the sake of expediency."[47] The clear implication of OI's description of the minutes is that the action discussed in the minutes was improper. Such a characterization of the minutes is inaccurate.

The description contained in the OI Index of the March 4, 1983, TWG meeting minutes is somewhat more accurate

than the OI Summary. It states that the work was to be performed under "another administrative procedure."[48] In fact, GPUN procedure AP 1013 was used. This was an appropriate procedure for making a temporary electrical modification.[49] Nothing in the minutes of the TWG meeting of March 4, or from any other source, suggests that the decision to rely on AP 1013 was an attempt to circumvent procedural requirements.

The OI Summary next deals with evidence indicating that there may have been confusion on the part of Bechtel employees concerning the applicability of GPUN procedures for refurbishing the polar crane.[50] They cite two pieces of evidence indicating that such confusion may have existed. The first is a March 1, 1983, memorandum from the acting Site Operations Director to the Startup and Test Supervisor (a Bechtel employee) concerning the applicability of AP 1043 and 1047 to polar crane refurbishment. Parks participated in the preparation of this memorandum which states:

> Recently, much confusion has existed over the applicability of AP 1047 and AP 1043 to the Polar Crane Refurbishment/Test Program. On February 23, 1983 a meeting was held in B. Kanga's office at which time the attendees were informed of Site Operations belief that the Polar Crane Refurbishment Program has to comply with AP 1043 and AP 1047. This belief was reinforced to the attendees by B. E. Ballard, Sr. - Manager of QA at TMI. Subsequent to this meeting, the Test Working Group was convened on

February 25, 1983 to review and discuss the necessary methods for ensuring that testing performed to date and any future testing complies with AP 1047 requirements.[51]

It is, therefore, apparent from this memorandum that as of March 4, 1983, Parks and others in Site Operations attributed the violations of AP 1043 and 1047 to "confusion."

The second piece of evidence is Construction Department Project Instruction (CDPI)-20 prepared by Bechtel which provides, in part, that GPUN procedures would not apply to work performed on equipment that had been turned over to Bechtel for repair. There is no doubt that, to the extent CDPI-20 indicated that GPUN procedures were not applicable, it was invalid.[52]

CDPI-20 was an internal Bechtel document that was never reviewed or approved by GPUN. It was written in the mistaken belief that the procedures under which polar crane refurbishment would be performed, permitted equipment to be turned over to Bechtel under a GPUN job ticket and administratively severed from GPUN control. The procedure under which the polar crane refurbishment job ticket was issued (MP 1407.1) had been revised immediately before the job ticket was issued. Very few GPUN or Bechtel employees were familiar with its provisions. The fact that CDPI-20 was prepared tends to confirm that Bechtel was operating on the mistaken belief

that the revision to MP 1407.1 could result in a waiver by GPUN of its procedural controls over work in containment.

The last finding in the OI Summary is that even if Bechtel was confused, GPUN was not.[53] This statement standing alone is true. Testimony taken from GPUN employees indicates that they generally understood that GPUN procedures applied to polar crane refurbishment work. As our report states, "Although a misunderstanding existed between Bechtel and GPUN, the documents we have examined and the behavior of key management personnel during the relevant time period, demonstrates that GPUN expected compliance with its procedures."[54] However, the OI Summary goes on to say "memoranda and QA reports" indicate that GPUN personnel were aware that "administrative procedures were not being followed, and so advised senior TMI-2 management."[55]

I have reviewed all of the QA documents cited by OI and discussed them above. They indicate that when issues were raised concerning procedural violations, TMI-2 management worked toward assuring compliance. Beyond the QA documents, I have found only two instances in which information was brought to the attention of GPUN personnel that Bechtel was not following GPUN procedures during the polar crane refurbishment project that were not acted upon immediately.

The first instance has not been referred to in the OI material. However, it was discussed at length in our report.[56] It began when Design Engineering (a Bechtel group that was part of the Recovery Programs Department) questioned whether modifications to the polar crane could be performed without using ECM's. They were advised by others in the Bechtel organization that the polar crane had been turned over to Bechtel and that GPUN procedures would not be followed. Design Engineering personnel had reservations about that advice. They later noted in a memorandum to the TMI-2 Licensing Department that an ECM would not be used for a particular modification. Licensing asked the Plant Operations Review Committee (PORC) for an opinion on whether an ECM was required. PORC issued a written response to Licensing that AP 1021 and 1043 applied and that an ECM was required.

The Licensing employee who raised the issue with PORC then contacted Design Engineering, and was advised of Bechtel's understanding that GPUN procedures were inapplicable to polar crane refurbishment work. The individual handling the matter in the Licensing Department never pursued it further. Although his supervisor had received a copy of the correspondence from PORC, he also did not pursue the matter. Our investigation uncovered no evidence that their failure to act was motivated by a desire to expedite the work on the polar crane, or that it was based on a management decision to permit procedural violations.

The second situation in which a procedural violation was brought to the attention of GPUN is mentioned in the OI Index. It involved the review of the polar crane no-load test procedure. As the procedure was being circulated for review, PORC advised the Polar Crane Task Group that the format of the no-load test procedure did not conform to the requirements of AP 1047.[57] The Chairman of the Polar Crane Task Group testified that he believed the information he received from PORC was advisory and not binding on him.

This situation graphically depicts the uncertainty about the correct procedures to be followed which existed during the polar crane refurbishment process. The test procedure was reviewed extensively because it was classified as Important To Safety. The reviewers of the procedure included the chairman of TWG, PORC, QA, Site Operations, and the NRC. In fact, King personally signed the procedure, even though it violated the requirements of AP 1047. As noted above, only PORC identified the deficiency and notified the Polar Crane Task Group. Finally, when QA reviewed the polar crane refurbishment, they recognized the procedural deficiency in the no-load test and issued the QDR in part on that basis.

The OI Summary ends this discussion with the statement, "Yet this circumvention continued even after the initiation of the investigation of the Parks-King-Gischel allegations."[58]

The "circumvention," and the "investigation" are not described further. Therefore, it is impossible to discuss the evidence upon which their statement may be based. The record is clear, however, that the efforts to identify procedural deficiencies and assure compliance with procedures began before any NRC investigation of which I am aware. As soon as Parks presented his concerns at the meeting of February 22, 1983, the review process that ultimately led to the issuance of the QDR began.

CONCLUSION

The OI material I reviewed is not written with precision. It is extremely difficult to identify the specific evidence relied upon by OI in support of many of its conclusions. Much of the language in the report is ambiguous. The time periods when events occurred, the individuals involved, and the acts of alleged misconduct are often not specified.

I do not disagree with the NRC Staff position that some evidence exists indicating that someone in the TMI-2 organization may have known of violations of GPUN procedures and permitted those violations to occur in order to expedite the work. Reasonable minds could find such evidence in the mass of testimony and documents that have been collected in the investigation. However, if the staff has also found that management at TMI-2 as a whole permitted procedural violations to occur in order to expedite cleanup activities, not only do I disagree with that judgment, but I believe that the evidence cited by OI supports the opposite conclusion.

The evidence shows that the failure to identify and correct procedural violations occurred during the TMI-2 management reorganization, and that the situation was remedied

when the new Director of TMI-2 recognized that a problem existed and took action. Therefore, while SECY-84-36 has been modified to indicate that some evidence exists of intentional violations, I do not believe there is a basis in the evidence for a change in the conclusions stated in SECY-84-36 concerning the overall intent of TMI-2 management.

NOTES

1 Myers is Science Advisor to the Subcommittee on Energy and the Environment of the U.S. House of Representatives Committee on Interior and Insular Affairs.

2 SECY-84-36, p. 3.

3 Myers memorandum to Haller, June 4, 1984, p. 1.

4 Dircks memorandum to NRC Commissioners, October 29, 1984, p. 1.

5 Hayes memorandum to Dircks, October 18, 1984, p. 1.

6 Ibid. p. 2.

7 Ibid. p. 3.

8 Ibid. pp. 2-3.

9 Ibid. p. 3.

10 OI Summary, p. 1.

11 Ibid.

12 The three OI documents make no effort to place the evidence they discuss in an historical context. That is, the reader is never told the background to which the evidence relates. The organizational and procedural changes that were taking place at TMI-2 during the period when the most significant procedural violations occurred must be understood in order to correctly assess the evidence cited by OI. Therefore, I have prepared Table 1 which describes the chronology of management changes, procedural revisions and cleanup activities that occurred at TMI-2. See also: Stier Report, Volume I, Summary and Conclusions; Volume IV, Background: Organization and Management of TMI-2; Volume IV, Polar Crane Allegations; Volume IV, Allegations of Safety REview Deficiencies; (footnotes have been omitted when quoting from the Stier Report.)

13 Hayes memorandum, pp. 2-3.

14 Ibid. p. 3.

15 OI Index, #4; Stier Report, Tab 60.

16 OI Index, #7; Stier Report, Tab 62.

17 Stier Report, Tab 333.

18 OI Summary, p. 1.

19 OI Index, #1.

20 It should be noted that the OI report is incorrect in stating that the letter was written in 1983. The correct year of the letter was 1982.

21 OI Summary, p. 2.

22 Attachment 1.

23 Ibid. p. 3.

24 Attachment 2.

25 OI Index #8.

26 Attachment 3.

27 Attachment 4.

28 Stier Report, Tab 114.

29 Attachment 5.

30 Attachment 6.

31 Ibid. p. 2.

32 Stier Report, Tab 50.

33 Ibid. Tab 51.

34 OI Summary, p. 2.

35 Stier Report, Volume I, Summary and Conclusions, p. 14.

36 I have limited my discussion here to allegations about AP 1043 and 1047 violations because the OI Summary states that TMI-2 management was warned of these violations by King, Parks and Gischel. Our report, however, deals at length with all of their allegations, with the exception of Parks' harassment claims.

37 Stier Report, Volume IV, Allegations of Safety Review Deficiencies, pp. 9-11.

38 Ibid. Volume IV, Polar Crane Allegations, pp. 67-87. (It should be noted that in the description of Parks' allegations in the OI Index, it is stated that concerns about procedural compliance were raised as early as November 1982 by correspondence from either Parks or the Site Operations Department. I have not been able to identify any such correspondence going back to November 1982 in the OI Index).

39 Summary of OI Analysis, p. 2.

40 Stier Report, Volume III, Harassment Allegations.

41 Ibid. Volume IV, Polar Crane Allegations, pp. 79-81).

42 "TMI-1 Restart" NUREG 0680, Supp. 5, pp. 10-1 through 10-23.

43 OI Summary, p. 2.

44 OI Index #22; Stier Report Tab 90.

45 OI Summary, p. 2.

46 Stier Report, Volume IV, Allegations of Safety Review Deficiencies, pp. 29-32.

47 OI Summary, p.2.

48 OI Index, #22.

49 Stier Report, Volume IV, Polar Crane Allegations, pp. 22-23.

50 OI Summary, p. 2.

51 OI Index, #21; Stier Report, Tab 119.

52 Stier Report, Volume IV, Polar Crane Allegations, pp. 7-16.

53 OI Summary, p. 2.

54 Stier Report, Volume IV, Polar Crane Allegations, p. 12.

55 OI Summary, p. 2.

56 Stier Report, Volume IV, Polar Crane Allegations, pp. 13-16.

57 OI Index, #13; Stier Report, Tab #88. Stier Report, Volume IV, Polar Crane Allegations, pp. 28-31.

58 OI Summary, p. 2.

ATTACHMENT 1

INFORMATION ONLY

May, 1982

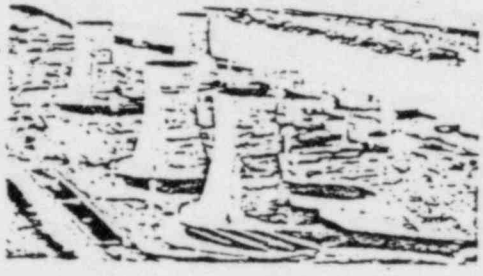
JUN 8 1982

GPU Nuclear

THREE MILE ISLAND NUCLEAR STATION

Q.A. RECORD

ORIGINAL COPY



ASSESSMENT

OF THE

IMPLEMENTATION AND EFFECTIVENESS

OF THE

QUALITY ASSURANCE PROGRAM

To: Vice-President/Director, TMI Unit II
Director, Quality Assurance

cc: Vice-President/Director, TMI Unit I
Executive Vice President
Vice-President/Director, Technical Functions
Vice-President/Director, Administration
Vice-President/Director, Nuclear Assurance
Vice-President/Director, Maintenance and Construction
Vice-President/Director, Radiological and Environmental Controls
QAD Section Managers
B. Kanga

To: Vice-President/Director - TMI Unit II

From: Manager - TMI QA Modifications/Operations

Subj: Monthly VP/Director's Report for May, 1982

General Discussion

This report is submitted for information and use in management's continual assessment of the implementation, status, and effectiveness of the Q.A. Program on the Unit. Input into this report is provided by the Quality Assurance Design/Procurement, Modifications/Operations and Program/Audit Section of the Q.A. Department. Recommendations or constructive criticism on the content or scope of this report are encouraged and requested. The initial distribution of this report is limited, but Divisions are encouraged to distribute copies as they see fit within their organizations. As this report is a Quality Assurance Record, copies are maintained in the site's Q.A. Record Vault. When significant events or problems require formal management action to be taken in accordance with Q.A. Plan requirements, these actions may periodically be identified and requested in this report. These type actions will normally be limited to those problems or events which are of such significance or nature that they either require more than one organization or division to resolve or are significant programmatic problems that require high level management notification.

ACTIVITY/NONCOMPLIANCE SUMMARY FIGURES

Activities Performed:	Month	YTD*	Findings Issued:	Month	YTD*
No. OQA Monitorings:	61	290	QDR's:	3	27
No. QC Inspections:	133	447	MNCR's:	22	70
No. QA Audits:	1	5	Audit Findings:	1	13
No. QA/QC Document Reviews:	720	1470			

* Year to Date

DIVISIONAL NONCOMPLIANCE SUMMARY BREAKDOWN FOR REPORT MONTH

TMI Division:	Initial Response Overdue (QDR's/ Audit Findings)	Corrective Action Completion Commitment Date Passed (QDR's/Audit Findings)	No. Open Longer Than Six Months (QDR's/Audit/ Findings/MNCR's/RDN's) Total No.	(A)*	(B)*	(C)*
Operations	0	1	4	1(0)	1(6)	2(2)
Engineering	1	3	16	3(15)	3(0)	5(2)
Maintenance	0	0	13	3(5)	6(2)	4(3)
Admin.	0	0	14	7(6)	4(6)	3(5)
Recovery Engineering	0	0	4	4(2)	0(0)	0(0)
Recovery Ops & Const.	0	0	2	0(0)	1(0)	1(2)
Other	0	1	3	1(2)	2(0)	0(2)

	Initial Response Overdue (QDR's/ Audit Findings)	Corrective Action Completion Commitment Date Passed (QDR's/Audit Findings)	No. Open Longer Than Six Months (QDR's/Audit Findings/MNCR's)			
			Total No.	(A)*	(B)*	(C)*
Other Divisions:						
Tech Functions	0	0	1	0(0)	0(1)	1(0)
Maint/Const.	0	1	1	1(1)	0(0)	0(0)
Rad/Environ.	0	0	2	1(0)	1(1)	0(0)
Admin.	0	0	8	8(7)	0(0)	0(0)
Nuclear Assurance	0	1	4	2(2)	0(0)	2(2)
		All Division Totals:	72	36	18	18

(A)* - Division Action Not Completed
(B)* - QA Closeout Required
(C)* - Committed Implementation Due Date Not Reached
( ) - Last Month's Data

TOTAL TMI UNIT NONCOMPLIANCE TRENDS (ALL DIVISIONS)

	Initial Response Overdue (QDR's/ Audit Findings)	Corrective Action Completion Commitment Date Passed (QDR's/Audit Findings)	No. Open Longer Than Six Months (QDR's/Audit Findings/MNCR's/ RDN's)				
			(A)*	(B)*	(C)*	(D)*	Total No.
1981 Annualized Averages	14 Avg/ Month	20 Avg/ Month					78 Avg Month
		1982 Monthly Actuals					
January	9	28	32	11	17	36	96
February	2	14	37	18	2	30	87
March	1	6	25	12	10	29	70
April	2	8	21	15	7	31	74
May	1	7	20	21	2	29	72

(A)* - QDR's
(B)* - MNCR's
(C)* - RDN's
(D)* - Audit Findings

NOTE: Those deficiencies open longer than six months are subdivided and reported in the four different categories of QA Department deficiency reports.

A. QUALITY DEFICIENCY REPORTS (QDR's)

Deficiencies other than material noncompliances of hardware items, usually issued to document software of activity items such as procedural noncompliance, procedure inadequacy, failure to meet commitments, etc.

B. MATERIAL NONCONFORMANCE REPORTS (MNCR's)

Material deficiencies pertaining to hardware structures, systems, or components which render the quality of the item unacceptable or indeterminate.

C. RECEIPT DEFICIENCY REPORTS (RDR's)

Used to document and track purchased items which arrive on site lacking Purchase Order required documentation such as Certificates of Compliance or test reports. RDN's are always issued against the GPUN Materials Management Group for resolution with vendor. A copy is provided to the material user.

D. AUDIT FINDING

Used to document and track QA programmatic deficiencies of either GPUN or vendors/contractors.

Each month a detailed report on the status of MNCR's, QDR's, Receipt Deficiency Notices, and Audit Findings is issued (separate from this one) to all appropriate levels of unit management/supervision for their review and action. These reports indicate responsible party for action, type deficiency, subject area, vendor, etc. so that middle and first level management/supervision are aware of quality related deficiencies, their status and their disposition.

SIGNIFICANT IMPLEMENTATION/EFFECTIVENESS ITEMS

1) A QA Stop Work Notice was initiated in TMI Unit II on May 21, 1982, as a result of repetitive violations of administrative controls for conducting work activities. Construction work had been implemented in the field without approved engineering documents and work permits which define and authorize the activities. The most recent incidents involved welding activities and material substitutes. The Stop Work Notice was not issued as Unit Management took immediate action in stopping activities being conducted in the field that had been identified by QA as well as several others discovered during the meeting on the problem. In addition, meetings on the subject were held the same day by engineering and notification was provided to construction that work activities were to be conducted in accordance with properly reviewed and approved work authorizations and engineering documents. As the real source of the problem appears to be an attitude that the Administrative Control Programs take too long to get work authorizations approved and into the field, Unit Management has committed to investigate and evaluate the present programs so that recommendations can be made and implemented which will allow QA Program compliance but still meet the schedule needs for timely and efficient work completion. QA will track this committment and support it but present programs must be complied with until the changes are made.

2) The 1981 QA Department Annual Assessment presentation was given during the month for TMI Units I and II. Both units were well represented in the presentation and discussions concerning quality trends and problems were informative. A written report summarizing the implementation and effectiveness items discussed and the trends noted will be provided to the Unit V.P./Directors and the Director QA by the end of June for inclusion into the overall QA Department Assessment report.

RECOMMENDATIONS/ACTIONS REQUIRED

None.

B. E. Ballard, Sr.
Manager - TMI QA
Modifications/Operations

ACTIVITIES SUMMARY

Month/Year: May, 1982 Unit: TMI I [ ] TMI II [X]

OQA/QC MONITORING AND INSPECTION SUMMARY

ACTIVITY	MONITORING Sched.	MONITORING Performed Month	MONITORING Performed YTD*	INSPECTION Sched.	INSPECTION Performed Month	INSPECTION Performed YTD*	MNCR/ODR Issued Month	MNCR/ODR Issued YTD*
Operations/Tech Specs:	18	15	53	Backshift Monitoring/Insp: OQA - 5 QC - 20			0	4
Engineering :	0	0	3				0	0
Startup/Testing :	1	0	0				0	0
Rad. Protection :	22	19	76				1	2
Chemistry :	4	2	10				0	0
Admin./Security :	15	10	62				0	0
Training :	2	2	9				0	1
Radwaste :	5	4	25	0	0	0	0	0
Fire Protection :	4	2	10	0	0	0	0	1
arehousing/Stores :	5	2	7	50	45	233	12	56
Preventive Maint.								
Mech. :	2	0	1	1	0	2	0	0
Elec/I & C :	6	3	0	0	0	4	0	0
Corrective Maint.								
Mech. :	1	0	4	16	2	8	0	0
Elec/I & C :	3	0	10	9	1	13	0	0
Welding :	1	0	2	2	2	22	0	0
Mods/Installations								
Mech. :	0	0	1	13	11	32	3	3
Elec/I & C :	3	0	2	11	8	11	2	3
Welding :	1	0	4	51	51	88	2	9
Civil/Struct :	0	0	0	11	11	14	3	8
NDE :	3	2	2	2	2	13	0	0
ISI Exams :	-	-	0	0	0	0	0	0
	Sched.	Performed		Sched.	Performed		Issued	
Totals:	96	61		166	133		23	

ACTIVITIES SUMMARY CONTINUED

II. Q.A. AUDIT SUMMARY

	Month	YTD*		Month	YTD*
Audits Scheduled	3	9	Audits Performed	1	6

Audited Areas: (Month)	Findings Issued		Findings Issued
Fire Protection	1	Training	**
Emergency Planning	**		
Materials Technology	**		

III. QA/QC DOCUMENT REVIEW

QA Engineering	Total Month	Reviewed YTD*	With Comments Month	With Comments YTD*
Specifications, SDD's/Design Criteria Doc., System Descriptions	0	4	0	1
ECM's/FCR's/FQ's/DRF's	8	55	4	32
Purchase Requisitions***	38	209	8	50
Purchase Orders	100	451	3	18
Engineering Evaluations incl. Vendor Bid Evaluations/Vendor Procedures	14	43	0	0
QA Manuals and Procedures	0	8	0	2
Modification Final Documentation Packages	0	0	0	0
Other	0	0	0	0

QA/QC	Total Month	Reviewed YTD*	With Comments Month	With Comments YTD*	MNCR/QDR Issued
Procedures/Plans/Programs	60	289	3	22	0
Work Authorizations/Schedules	121	411	1	10	0
Engineering Documents/Vendor/ Contractor Documents	0	0	0	0	0
Other	0	0	0	0	0

*YTD - Year to Date
**In Progress
***Combined Unit I and II Totals

NONCOMPLIANCE SUMMARY

Month/Year: May, 1982 Unit: TMI I [ ] TMI II [X]

I. QUALITY DEFICIENCY REPORTS (QDR'S)

TMI Division	Issued: Month	Issued: YTD *	Closed: Month	Closed: YTD *
Operations :	1	7	3	18
Engineering :	1	1	0	7
Maintenance :	1	5	1	5
Administration :	1	2	0	1
Other :	1	2	0	0
Other Divisions				
Tech Functions :	1	2	0	3
Maintenance & Construction :	0	0	0	2
Radiological & Environmental :	1	3	0	7
Administration :	0	0	0	0
Nuclear Assurance :	1	2	0	4
Other :	0	0	0	0
Total Issued by QA :	8	24	4	47
Total Issued by Others :	0	0	0	0

Total Open Status

Awaiting Initial Response(Not Overdue):	7
Initial Response Overdue :	0
Initial Response Unacceptable :	0
Corrective Action Completion Pending :	29
Corrective Action Completion Overdue :	0
Corrective Action Verification Pending:	1

Open Period

0-60 days:	11
60-120 days:	2
120-180 days:	4
180-365 days:	20

II. MATERIAL NONCONFORMANCE REPORTS (MNCR'S)

	Month	YTD *
Issued:	22	70
Closed:	14	48
Issued by Other Than QA:	0	0

Total Open Status

Awaiting Initial Response:	12
Initial Response Unacceptable:	2
Corrective Action Completion Pending:	35
Disposition Verification Pending:	0
Corrective Action Verification Pending:	0

Open Period

0-60 days : 16 60-120 days: 6 120-180 days: 7 180-365 days: 20

III. MATERIAL HOLD TAGS

	Month	YTD *
Issued:	21	97
Closed:	33	63

Open Period

0-60 days:	31	120-180 days:	7
60-120 days:	7	180-365 days:	14

IV. AUDIT FINDINGS

	Month	YTD *
Issued:	1	13
Closed:	7	36

Total Open Status

Awaiting Initial Response (Not Overdue):	1
Initial Response Overdue:	1
Response Evaluation In Progress:	0
Initial Response Unacceptable:	2
Corrective Action Completion Pending:	4
Corrective Action Completion Overdue:	11
Corrective Action Verification Pending:	13

Open Period

30-60 days: 2 60-120 days: 1 120-240 days: 4 > 240 days 24

< 30 days: 1

YTD*-Year to Date

ATTACHMENT 2

O: M K Pastor - Rec Qas • Constr. Div

Subject: QDR No.: ETM 85-82 File No.: _____

☐ The attached QDR has been evaluated by OQA and found potentially reportable. Please review the QDR and take action you consider necessary to inform Regulatory Agencies, Upper Management and GRC/PORC Committee Chairmen. You are requested to furnish written acknowledgement of the receipt of this notification. Please provide copy of completed evaluation report to OQA Manager for placement in QDR fi

☐ The attached QDR is forwarded for corrective action. Please arrange for the completion of Section 3 of the QDR, and provide a date by which corrective action will be completed. Return the QDR, with Section 3 completed, to the OQA Manager. You are requested to furnish written acknowledgement of the receipt of this transmittal.

☐ For your information.

☐ The attached QDR and supporting documents are forwarded for your retention as QA Records and are to be retained for the life of Unit I/II. You are requested to furnish written acknowledgement of the receipt of this transmittal.

☐ Examination of our records indicates that this QDR corrective action is overdue. Please provide a revised completion date and interim status report to the OQA Manager for approval.

☐ Other/Additional: _____

CC:
( ) Chairman PORC
( ) Director QA
( ) QA Design and Procurement Manager (Site Supvr)
( ) QA Manufacturing Assurance Manager
( ) Manager QA Modifications/Operations
( ) Dir. Matl. Mgmt. Systems and Purchasing
( ) Chairman GRC
( ) Mgr. NSAC
( ) Operations QA Manager
( ) Site QA Audit Supv.
( ) Unit Manager I/II
( ) Supvr. Licensing
( ) Others _____

Receipt Acknowledgement Required Yes ☐ No ☐

If receipt acknowledgement is required, sign the following statement and return this form t the OQA Manager.

The receipt of
is hereby acknowledged.

From: _____

QDR No. Copy

Signed: _____

Quality Deficiency Report (QDR)

1. **Description of Deficiencies**

a. **Completed by Initiator:**

Unit II Initiator: E.T. Mitchell (Name) Ops. Monitoring Ld. (Title/Section) [illegible] (Date/Time)

Requirement(s): Recovery QA Plan, Rev. 0, dated 7-14-80, Section 3.1.1, states, "The TMI Quality Assurance Program requires that activities Important to Safety be prescribed by documented procedures, instructions, and/or drawings and that these activities be accomplished through the implementation of these documents."

b. Deficiency: Contrary to the above requirement, on 8-4-82, (Entry #77) a CRDM top closure was removed using Bechtel Work Package R-026, Section 200 instead of Procedure 2104-10.6 or 2104-10.7. Also Procedure 4300-ADM-3240.1 was not followed in that an In/Out containment tool and equipment log is not maintained.

On 8-5-82, (Entry #78) Procedure 2104-10.3 was not followed in that the In Containment Team #2 was not directed Step-by-Step by the task supervisor and the steps were not signed off as they were accomplished. Also procedure 2104-10.4 was not followed in that step 7.1.2 was not filled in prior to placement of the support stand and steps 7.1.1 through 7.1.12 were performed out of sequence.

It had been previously identified in memo 4350-82-0417 that work packages cannot substitute for approved procedures.

HAND CARRY TO OQA MANAGER (ONSITE INITIATED), QA ENGINEERING MANAGER (OFFSITE INITIATED), OR SHIFT SUPERVISOR ON BACKSHIFT/WEEKEND

2. Quality Evaluation

	Yes	No		Yes	No
Important to Safety:	X		Potential 10CFR 50		X
Potential L.E.R.		X	Potential 10CFR 20		X
Potential 10CFR 73		X	Potential 10CFR 21		X

Date/Time Received:

Evaluated By: E.T. Mitchell (Name: E.T. Mitchell) Title: Ops. Monitor Ld. Date/Time:

OQA Manager / QA Eng. Mgr. Concurrence: [illegible signature] for T.C. Fernald Date/Time: [illegible] 0830

If evaluated to be potentially reportable notify Unit Director or Duty Supt. and send copy of QDR to Licensing

Date/Time Unit Director Notified:

Licensing Notified Yes ☐ No ☒ Date/Time

Parties responsible for corrective action: Recovery Operations & Construction Director, M.K. Pastor

Required response Date: (30 days or less from transmittal date) [illegible]

FILE COPY

QDR No. [illegible]

FORM QA-8101-1 Rev. 1

A0000378

3. Action

Assigned to: ______
(as required)

Cause:

See Letters BLMP-0498 dated 9-10-82 AND CLG-0860 dated 9-22-82

Corrective Action: (Including action required to prevent recurrence)

Ref. (a) R.L. Rider letter BLMP-0498 dated Sept 10, 1982.
(b) D.M. Lake letter CLG-0860 dated Sept 22, 1982.

- Ref (a) provides corrective action for removal of a CRDM top closure using a work package in lieu of a procedure.
- Ref (b) provides corrective action for failure to maintain a tool and equipment log.
- Ref (a) provides corrective action for failure to check off procedure steps.

Corrective Action will be completed by: 10-1-82
Date

M.K. Oasts — 9-27-82
Party Responsible for Corrective Action — Date

NOTE: AFTER COMPLETION OF THIS SECTION RETURN THE QDR TO THE QQA SUPERVISOR

4. Corrective Action Concurrence

[signature] — 10/13/82
QQA Supervisor — Date

5. QA Verification and Close-Out

Method(s) of Verification:

Verification of subsequent work being done by procedures is accomplished by continual monitoring, and all task [illegible] have been informed to follow and sign all steps of procedures per this QDR. ~~[illegible]~~ Verified a tool and equipment log is being maintained in Command Center per procedure (The procedure is being changed to revise the requirement per attached memo). 7/14/83

Verified By: [signature]

Date Computer Input Card Completed: [illegible]

Close-Out by: [signature] — QQA Supv. — 7/14/83
Name — Title — Date

6. Final Package Review

Attachments:

memo 4350-82-0417	13 July 82	memo 4360-82-0495	22 Oct 82
memo BLMP 0498	10 Sept 82	memo 4300-83-0082	17 Jan 83
memo CLG 0860	22 Sept 82	memo 4300-83-0122	14 March 83
		memo 4370-83-5015	7 July 83

Reviewed by: [signature] — 7/18/83
QQA Supervisor — Date

COPY

ATTACHMENT 1

FORM QA-610-2

Inter-Office Memorandum

GPU Nuclear

e July 13, 1982

ject Work Packages for Quick Look Program

B. E. Ballard

Location TMI-2
4350-82-0417

A question has arisen with respect to the purpose and use of Work Packages and their relation to implementing the Quick Look task. This letter summarizes how Work Packages are used in conjunction with GPU-authorized documents such as procedures and ECM's.

All activities in the containment are described in Work Packages as specified in procedure ADM 3240.1, Access To and Work in the Containment.

The Work Package is intended to be used as a method of defining supplementary instructions deemed necessary to perform procedural operation, complete a tie-in or permanent plant change under an ECM, or make a temporary modification in accordance with GPU procedure AP-1013. Work Packages are also used to accomplish recovery tasks which are determined to be wholly or partially independent of the GPU procedural system.

Work Packages are not intended to substitute for germane procedural requirements. Likewise work packages will not substitute for important to safety tasks which are performed under appropriate procedures, maintenance job tickets or ECM's. The work package does not deviate, add to or change the requirements and scope of a GPU-authorizing document. This is illustrated by the following examples.

A modified nitrogen system is necessary to provide cover gas to the top of the RCS high points at the hot legs, pressurizer and the reactor vessel. The tie-in to the permanent system occurs where a nitrogen regulator is installed for use during the Quick Look. The tie-in modification is included and has been approved on an ECM. Downstream lines to temporarily supply the nitrogen from the in-containment header to the high points will be documented for the Quick Look using the temporary modification procedure AP-1013. The procedural operations associated with connecting the vent and nitrogen hoses and valve operations will be performed under a detailed procedure.

Work Packages are used to provide supplementary worker instructions to implement these documents for such items as material and tooling identification and staging, pre-work checklist and notification requirements, sequence of work activities, disposition of data and materials, work cleanup tasks, etc. These supplementary instructions may also include activities that are determined to have no effect on nuclear, radwaste or fire safety in the plant such as plug-in electrical power sources, material handling, or hoisting provisions, etc.

In many cases, recovery work may be determined to not require an ECM, tie-in authorization, or procedure. In such cases, work can proceed as outlined in the Work Package. Quick-Look tasks associated with radiation surveys, moving the television cameras, decontamination of the "B" steam generator area and installation of the hoist are examples of work authorized by GPU Management under the Quick-Look Program which did not require ECM's or procedures. Likewise, specific Work Packages were judged to not require GPU approval as they did not fall within any of the conditions listed in Procedure ADM-3240.1 (Section 4.1.2.2).

It is recognized that a procedure does not exist which defines the intent and use of the Work Package. The forthcoming organizational changes and accompanying administrative procedural changes will correct this situation.

Until that time, and specifically for the Quick-Look Program, this letter is provided to state the position of GPU Management.

M. K. Pastor
Recovery Programs Operations &
Construction Director, TMI-2

MKP:RLR:cal

cc: J. W. Thiesing
D. M. Lake
R. L. Rider
J. F. Marsden
J. J. Barton
B. K. Kanga
L. P. King
CARIRS

D/P ____ MQA ____
QA ____ Q4SE ____
C ____ AUDITS ____
LIBRARY ____
OTHER ____

Bechtel Northern Corporation
Engineers — Constructors

15740 Shady Grove Road
Gaithersburg, Maryland 20877
301-258-3000

September 10, 1982

In Response to Quick Look - QDR-ETM-85-82

Mr M. K. Pastor
Recovery Programs Operations and
Construction Director
GPU Nuclear Corporation
P. O. Box 480
Middletown, PA 17057

Quality Deficiency Report
Three Mile Island Unit 2
Containment Recovery Engineering
Bechtel Job No. 13587
File 0255.3/0494/10209
BLMP - 0498

Dear Mr. Pastor:

The operation surveillance performed during the conduct of the Quick Look entries on August 4 & 5, 1982 resulted in a Quality Deficiency Report ETM-85-82. The following responds to those items under the supervision of the Quick Look Group.

1. Work Package R-026, August 4, 1982

The QDR states a CRDM top closure was removed using work package instructions instead of Procedure 2104-10.6 or 2104-10.7. This closure had been previously removed on July 19, 1982 as part of the first inspection. It was temporarily reinstalled as a dust cover following the first inspection. The second removal was judged to not require a detailed procedure, since the pressure retaining function of the closure head had not been necessary.

Resolution - Subsequent work similar to the closure removal noted in the QDR has been performed by procedures.

2. Procedure 2104-10.3, August 5, 1982

The QDR states that the in-containment team was not directed step-by-step by the Task Supervisor and the steps were not signed off as they were accomplished. The work was performed by the in-containment crew who had been throughly trained on the procedure. Direct observations of the work were continously made by the Task Supervisor. It was not necessary to direct each step. If any deviations had occurred they would have been noted by the Task Supervisor and proper direction made.

Resolution - No change in the method if supervision for such tasks are deemed necessary. The Task Supervisor was instructed to sign off procedural steps as they are performed.

3. Procedure 2101-10.4, August 5, 1982

The QDR states that the blanks in a procedure step (locating the bandsaw support stand on the CRDM motor tubes) were not filled in prior to placement of the support stand and the installation steps were performed out of sequence.

Resolution - Task Supervisor will fill in blank spaces or unnecessary information requirements will be deleted from procedures where radiation exposure would be incurred on future tasks.

The remaining items in the QDR with respect to Procedure 3240.1 will be addressed seperately by Construction. Please contact Tom Morris if you have any questions.

Very truly yours,

R. L. Rider

R. L. Rider
Project Engineer

RLR:raw

Attachments: 1. Quality Deficiency Report (QDR)

cc: J. W. Theising, Bechtel Northern, w/a
C. E. Corley, Bechtel, w/a
B. Ballard, GPUNC, w/a
T. E. Morris, Bechtel Northern, w/a
D. M. Lake, Bechtel Northern, w/a
R. W. Jackson, Bechtel Northern, w/a

Bechtel Northern Corporation
Engineers — Constructors

15740 Shady Grove Road
Gaithersburg, Maryland 20877
301-258-3000

September 22, 1982

Mr. M. K. Pastor
Recovery Programs Operations and
Construction Director
GPU Nuclear Corporation
P. O. Box 480
Middletown, PA 17057

Quality Deficiency Report #QDR-85-S2
Three Mile Island - Unit 2
Bechtel Job Number 13557
CLG-0860 NR File: 0273/0165

Dear Mr. Pastor:

Procedure 4300-ADM-3240.1 requires that an In and Out of Containment log be maintained to record the movement of tools and combustibles needed for the execution of Entry tasks. QDR-85-S2 records a violation of the procedure by Command Center personnel. At the time, the provisions of LOI No. 5 were being followed. A change to 4300-ADM-3240.1 has been submitted in accordance with LOI No. 5. Acceptance of this will satisfy the discrepancy.

Very truly yours,

D. M. Lake
Manager, Recovery Operations

HPW/ssf

cc: P. R. Bengal
J. F. Dettorre

Inter-Office Memorandum

GPU Nuclear

Date: October 22, 1982

Subject: TMI-2, RESPONSE TO QDR 85/82

To: E. MITCHELL
QUALITY ASSURANCE

Location: TMI-2
4360-82-0498

This will confirm our telephone conversations regarding the response to the subject deficiency report dealing with modification of the containment entry procedure to revise the equipment log maintenance procedure.

The original response stated that the request for change had been submitted. At the time, that was a true statement. However, the request was returned by the Procedure Control group with a request that the change request be approved by the Manager, Recovery Programs.

The request for revision has been submitted to the Manager, Recovery Programs. It is anticipated that the request will be in the hands of the Procedure Control group by November 8, 1982, and that the containment entry procedure will be revised by November 30, 1982.

M. K. Pastor

M. K. Pastor
Program Controls Director
Recovery Programs, TMI-2

MKP:dkd

cc: J. W. Thiesing
D. M. Lake

OQA has reviewed the circumstances related to QDR 85-82 and hereby extends the CR. date to 11/30/82.

Later was notified of above 11/1/82.

J Chrmiel 11/1/82
OQA Mgr

Inter-Office Memorandum

GPU Nuclear

Date January 17, 1983

Subject QDR ETM-85-82

To J. C. Fornicola

Location Three Mile Island Unit 2
4300-83-0082

It is my understanding that all items noted in QDR-85-82 have been closed out with the exception of a violation of Procedure 4300-ADM-3240.1 related to maintenance of the in and out-of containment tool and equipment log in the Command Center. It should be noted that the procedural deficiency was corrected some time ago by placing the required log in in the Command Center, and I have, on this date, confirmed with the Entry Supervisor that the log is, in fact, in the Command Center.

An upcoming global revision to the Containment Entry Procedure (4300-ADM-3240.1) will delete the requirements stated therein for the equipment and tool log. The requirements for, and procedures for maintenance of, this log are currently reflected in a Recovery Operations internal procedure which is soon to be issued as a GPU Procedure. This deletion from 4300-ADM-3240.1 is being made to avoid adding duplicative requirements in different procedures.

Please call us if this is not sufficient to resolve the outstanding issue in the QDR.

J. W. Thiesing (SBC)
Manager, Recovery Programs

JWT:jrb

cc: R. L. Freemerman
D. M. Lake
R. L. Rider

Please extend until March 1, 1983.

Based on the above, this action is hereby accepted to revise the date on this QDR to March 1, 1983. [illegible]

[illegible]
5/ /83

A0000648

Inter-Office Memorandum

GPU Nuclear

Date March 14, 1983

Subject QDR # ETM-85-82

To D. Dieter

Location Three Mile Island Unit 2
4900-83-0122

An outstanding corrective action item from the subject QDR is a revision to the Containment Entry Procedure 4300-ADM-3240.1 which would make more logical and effective the process of logging tools and equipment into and out of containment. This revision now exists only in draft form as Procedure 4000-ADM-3240.1.

I believe it may require as long as 60 days from this date to make the revised procedure effective and request an extension of time to close out the subject QDR. Please be advised that, per my previous memo on the subject, I believe we are now in compliance with the existing procedure.

J. W. Thiesing (BWAPC)
Manager, Recovery Programs

JWT:fnb

cc: J. J. Fenton
F. L. Freemenman
C. M. Hansen
B. K. Kanga

QDR is extended until ... Date
has received this QDR and will concur with extension.

Inter-Office Memorandum

Date July 7, 1983
4570-83-5008

GPU Nuclear

Subject Q.D.R. #85-82

To J. C. Fornicola
Operations QA Manager

Location Three Mile Island - Unit 2
Trailer 105
File: 0303.5/0165 R

REFERENCE:
1. Q.D.R. 85-82
2. IOM #4300-83-0082
3. IOM #4560-82-0493
4. LTR. #CLG-0860

All of the referenced memo's address the need to revise the "Access to and Work in the Containment Building" procedure 4300-ADM-3240.1 to resolve the Tool and Equipment Log deficiency. In keeping with Mr. Thiesing's memo #4300-83-0082, a copy of the log is kept in the Command Center, but the "global revision" of the procedure has not yet been approved. The responsibility for this "global revision" has since been placed with myself and Mr. J. Chwastyk. This revision will delete the requirement for the log, but until the revision is issued we will comply to the requirement as stated in the QDR.

Please consider this memo final closeout for QDR 85-82.

D. M. Lake
Manager, Recovery Operations

MML/kbc
Attachments: References

A0300848

FROM: OQA Manager

Date: 7/9/82

TO: M. K. Pastor · Hickey / Smith Lin.

Subject: QDR No.: ETM-75-82 File No.: TF-75-82

__ The attached QDR has been evaluated by OQA and found potentially reportable. Please review the QDR and take action you consider necessary to inform Regulatory Agencies, Upper Management and GRC/PORC Committee Chairmen. You are requested to furnish written acknowledgement of the receipt of this notification. Please provide copy of completed evaluation report to OQA Manager for placement in QDR file

✓ The attached QDR is forwarded for corrective action. Please arrange for the completion of Section 3 of the QDR, and provide a date by which corrective action will be completed. Return the QDR, with Section 3 completed, to the OQA Manager. You are requested to furnish written acknowledgement of the receipt of this transmittal.

__ For your information.

__ The attached QDR and supporting documents are forwarded for your retention as QA Records and are to be retained for the life of Unit I/II. You are requested to furnish written acknowledgement of the receipt of this transmittal.

__ Examination of our records indicates that this QDR corrective action is overdue. Please provide a revised completion date and interim status report to the OQA Manager for approval.

__ Other/Additional: ______

cc: ( ) Chairman PORC
( ) Director QA
( ) QA Design and Procurement Manager (Site Supvr)
( ) QA Manufacturing Assurance Manager
( ) Manager QA Modifications/Operations
( ) Dir. Matl. Mgmt. Systems and Purchasing
(✓) D. LAKE · BECHTEL CONST
(✓) R. RIDER · BECHTEL

( ) Chairman GRC
(✓) Mgr. MQAI
( ) Operations QA Manager
( ) Site QA Audit Supv.
(✓) Unit Manager I/II
( ) Supvr. Licensing
(✓) Others E MUMMERT
TRLR 104

Receipt Acknowledgement Required Yes ✓ No __

If receipt acknowledgement is required, sign the following statement and return this form to the OQA Manager.

The receipt of
is hereby acknowledged.

From: ______

QDR No. ______

Signed: ______

ATTACHMENT 3

August, 1982

INFORMATION ONLY

GPU Nuclear

THREE MILE ISLAND NUCLEAR STATION

Q. A. RECORD

ORIGINAL COPY

ASSESSMENT

OF THE

IMPLEMENTATION AND EFFECTIVENESS

OF THE

QUALITY ASSURANCE PROGRAM

To: Director, TMI Unit II
Director, Quality Assurance

cc: Vice-President/Director, TMI Unit I
Deputy Director, TMI Unit II
Executive Vice President
Vice-President/Director, Technical Functions
Vice-President/Director, Administration
Vice-President/Director, Nuclear Assurance
Vice-President/Director, Maintenance and Construction
Vice-President/Director, Radiological and Environmental Controls
QAD Section Managers

To: Director TMI Unit II

From: Manager - TMI QA Modifications/Operations

Subj: Monthly VP/Director's Report for August, 1982

General Discussion

This report is submitted for information and use in management's continual assessment of the implementation, status, and effectiveness of the Q.A. Program on the Unit. Input into this report is provided by the Quality Assurance Design/Procurement, Modifications/Operations and Program/Audit Section of the Q.A. Department. Recommendations or constructive criticism on the content or scope of this report are encouraged and requested. The initial distribution of this report is limited, but Divisions are encouraged to distribute copies as they see fit within their organizations. As this report is a Quality Assurance Record, copies are maintained in the site's Q.A. Record Vault. When significant events or problems require formal management action to be taken in accordance with Q.A. Plan requirements, these actions may periodically be identified and requested in this report. These type actions will normally be limited to those problems or events which are of such significance or nature that they either require more than one organization or division to resolve or are significant programmatic problems that require high level management notification.

There are four different categories of QA Department deficiency reports discussed in this report. They are described below:

A. QUALITY DEFICIENCY REPORTS (QDR's)

Deficiencies other than material noncompliances of hardware items, usually issued to document software of activity items such as procedural noncompliance, procedure inadequacy, failure to meet commitments, etc.

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Material deficiencies pertaining to hardware structures, systems, or components which render the quality of the item unacceptable or indeterminate.

C. RECEIPT DEFICIENCY REPORTS (RDN's)

Used to document and track purchased items which arrive on site lacking Purchase Order required documentation such as Certificates of Compliance or test reports. RDN's are always issued against the GPUN Materials Management Group for resolution with vendor. A copy is provided to the material user.

D. AUDIT FINDING

Used to document and track QA programmatic deficiencies of either GPUN or vendors/contractors.

Each month a detailed report on the status of MNCR's, QDR's, Receipt Deficiency Notices and Audit Findings is issued (separate from this one) to all appropriate levels of unit management/supervision for their review and action. These reports indicate responsible party for action, type deficiency, subject area, vendor, etc. so that middle and first level management/supervision are aware of quality related deficiencies, their status and their disposition.

This month's report is reorganized in regards to statistical data provided. More emphasis is placed towards showing the number of QA deficiencies in a Division's house that need action of some type. The report also indicates the number of open deficiencies that have been open greater than 90 days, as well as those open greater than 180 days. This 90/180 day data is orientated to those that need Division Action, i.e., response due, committed corrective action incomplete and response due, etc. To assist Division personnel who are responsible to track QA deficiencies in their own house, the September report will provide a special list by deficiency number of all 90/180 day deficiencies our logs show in their Division. This list can be compared with their own records and can be used to assure the tracking systems match each other.

SIGNIFICANT IMPLEMENTATION/EFFECTIVENESS ITEMS

1. QA Engineering review of Receipt Deficiency Notices (RDN's) relating to lack of Certificates of Compliance indicates in the last six months that 23% less RDN's have been issued for that reason. This implies that the C of C guidance provided by QA Engineering to Engineering last year has reduced this type of deficiency to some extent and potentially has stopped some of the inappropriate requests for C of C's from vendors when not needed.

2. TMI Unit I has still not issued the Drawing Utilization Procedure in the AP1001 series. This procedure would require that up-to-date drawings are used. It requires the use of a controlled copy or a verified copy of a drawing to perform work. OQA is working with the Operations and Maintenance Director to obtain issuance. A similar problem exists in TMI Unit II.

3. Quality Control has identified a problem in getting Technical Functions onsite to sign Conditional Releases for Operations on TMI Unit II. QC is being directed to offsite personnel for signature. This is not timely. If Technical Functions continues to direct QC offsite, the MNCR procedure will have to be changed to give TMI Unit II Recovery Programs the signature authority or the site will have to rely on Plant Engineering signature only.

4. TMI Unit II has converted over to the Maintenance Work Schedule Review Program for QC activities. This replaces a significant portion of QC in-line review of in-scope Job Tickets and has proven to be very effective and efficient in TMI Unit I. Minor problems were encountered at the start, but have been corrected by TMI Unit II Maintenance.

5. OQA Review of TMI Unit II completed Job Tickets is still in progress. This review is to assess the adequate documentation of maintenance activities which could affect design and to determine if adequate up-front Job Ticket detail was provided to Maintenance to assure design is not compromised. Approximately 10% of 800 Job Tickets reviewed to date have been identified as potential problem areas and are being forwarded to Plant Engineering, Maintenance or QC for further evaluation. OQA is reviewing Job Tickets in Unit I to assure similar problems do not exist.

6. Recent monitorings of TMI Unit II Quick Look Program activities had identified problems with Bechtel Work Packages. The Bechtel Work Package is not proceduralized and cannot be used to accomplish important to safety work activities on the unit.

RECOMMENDATIONS/ACTIONS REQUIRED

1. Bechtel Work Package use should be proceduralized as soon as possible and should not be used to perform Important to Safety work activities unless sufficient administrative controls are applied that assures Plant Operations, Quality Control, etc., are notified appropriately before work commences and are given the opportunity for review.

2. Administrative Procedures for control of drawings in the Unit and their use in work activities should be issued as soon as possible.

3. Maintenance should assure that sufficient design details are provided in Job Tickets prior to commencing work and Maintenance supervision should assure sufficient detail is provided on the completion of work activities such that determination can be made that design was not impacted by the maintenance activity.

Blair Ballard

B. E. Ballard, Sr.
Manager - TMI QA
Modifications/Operations

Month/Year: August, 1982

QUALITY ASSURANCE ACTIVITIES SUMMARY

Unit: TMI-1 [ ] TMI-II [X]

QA/QC Document Reviews

	Month	YTD	YTD With Comments	YTD QDR/MNCR Issued
Procedures/Plans/Programs	43	343	30	1
Engineering Documents/ Vendor and Contractor	21	157	50	0
Purchase Reqs/Orders	81	947	91	0
Work Request/Work Schedules Work Authorizations	34	661	16	0
Other	0	0	0	0

QA Audits

	Month	YTD
Started	3	11
Completed (Issued)	2	8

Audited Areas	Findings Issued
S.P.P.	0
Security	0
E-Plan/Information Mgmt.	0
Maint & Constr	0

QA Monitoring

	Month	YTD
Scheduled	141	831
Performed	111	539
QDR's/MNCR's Issued	3	9

QC Inspection

	Month	YTD
Scheduled	85	954
Performed	62	672
QDR's/MNCR's Issued	12	83

MONITORING/INSPECTION ACTIVITY BREAKOUT

Monitoring

	Scheduled	Performed Month	Performed YTD	YTD QDR/MNCR Issued
Operations/Tech Specs	20	18	106	2
Engineering	14	13	17	1
Start Up/Testing	1	1	1	0
Rad Controls/Environ	15	11	116	2
Chemistry	7	5	29	1
Admin/Security	16	8	99	0
Training	3	2	12	1
Fire Protection	4	4	21	1
Warehousing/Stores	4	3	14	0
NDE/Welding	5	3	17	0
Mech Preventive Maint	3	3	4	0
Mech Corrective Maint	15	15	21	0
Elec/IC Preven Maint	8	4	18	1
Elec/IC Correct Maint	18	15	29	0
Mod/Installations (Mech, Elec, I&C)	4	2	6	0

Inspection

	Scheduled	Performed Month	Performed YTD	YTD QDR/MNCR Issued
Fire Protection	0	0	0	0
Receiving	50	48	387	67
Civil/Structural	3	3	24	5
Mech Preventive Maint	2	0	2	0
Mech Corrective Maint	11	3	15	0
Mech Mod/Installation	3	3	46	1
Elec Preventive Maint	0	0	7	1
Elec Corrective Maint	2	0	10	0
Elec Mod/Installation	1	1	3	0
Welding	2	2	96	4
I&C Preventive Maint	0	0	0	0
I&C Corrective Maint	8	1	6	0
I&C Mod/Installation	3	1	18	3
ISI NDE	0	0	0	0
Mods/Installation NDE	0	0	21	2
Housekeeping/Material				

Month/Year: August, 1982

QUALITY ASSURANCE DEFICIENCY SUMMARY

Unit: TMI-1 [ ] TMI-2 [ ]

QDR's/AUDIT FINDINGS ISSUED

TMI Division:	QDR's Month	QDR's YTD	Audit Findings Month	Audit Findings YTD
Operations	0	7	0	1
Engineering	1	4	0	0
Maintenance	1	7	0	1
Recovery Prog.	1	3	0	1
Admin/Other	0	3	0	1/1
TMI Division TOTAL:	3	24	0	5
Other Divisions:		*		*
Tech Functions	0	2	0	0
Maint/Const	0	0	0	0
Rad/Environ	0	5	0	0
Admin/Other	0	0	0	0
Nuclear Assur	0	2	3	0/3
All Divisions TOTAL:	3	33	3	8

QDR's/AUDIT FINDINGS CLOSED

	QDR's/Audit Findings Month	QDR's/Audit Findings YTD
Operations	1	35
Engineering	0	16
Maintenance	2	12
Recovery Prog.	0	2
Admin/Other	0	5
TMI Division TOTAL:	3	70
Tech Functions	0	3
Maint/Const	0	2
Rad/Environ	0	10
Admin/Other	0	3
Nuclear Assur	0	4
All Divisions TOTAL:	3	92

QDR's/AUDIT FINDINGS OPEN

Status

	Total QDR's Open	Total Audit Findings Open	QDR/AF Division Action Due	QDR/AF Committed Implement Due Date Not Reached
Operations	6	0	2	2
Engineering	5	2	4	1
Maintenance	6	5	2	3
Recovery Prog.	6	3	4	1
Admin/Other	5	13	15	5
TMI Division TOTAL:	28	23	27	12
Tech Functions	3	0	2	1
Maint/Const	0	0	0	0
Rad/Environ	4	1	2	3
Admin/Other	0	0	0	0
Nuclear Assur	1	7	4	2
All Divisions TOTAL:	36	31	35	18

Response Problems

	QDR/AF Initial Response Overdue	QDR/AF Corrective Action Completion Overdue	QDR/AF Open >90/>180 Days and Division Action Due >90 days	QDR/AF Open >90/>180 Days and Division Action Due >180 days
Operations	0	2	0	2
Engineering	2	2	0	4
Maintenance	1	2	0	2
Recovery Prog.	1	4	0	4
Admin/Other	0	7	1	10
TMI Division TOTAL:	4	17	1	22
Tech Functions	0	2	0	0
Maint/Const	0	0	0	0
Rad/Environ	1	1	0	0
Admin/Other	0	0	0	0
Nuclear Assur	1	1	0	1
All Divisions TOTAL:	6	21	1	23

* Data shown indicates "No. Issued Against Specific Unit"/"No. Issued That Are Not Unit Specific"

MATERIAL NONCONFORMANCE REPORTS

MNCR's/RDN's

Organization:	In House For Disp/Action	MNCR/RDN Open >90/>180 Days & Action Required	
Plant Maint/Ops/Engr	17	4	8
Maint/Constr	2	1	1
Technical Functions	1	0	0
Material Mgmt	2	2	8
Recovery Programs	8	2	5

MNCR's/RDN's

	Month	YTD
Total Issued (1982)	15	131
Total Closed	2	95
Total Open		54

CONDITIONAL RELEASES YTD

	1982 Issued	1982 Closed	Remaining Open
Type I Installation Only	4	1	3
Type II SU/T Only	0	0	0
Type III Operations	1	0	1

MATERIAL HOLD TAGS YTD

	1982 Issued	1982 Closed	Remain Open
Warehouse	181	145	43
In Plant	31	23	19
Total	212	168	62

ATTACHMENT 4

October, 1982

INFORMATION ONLY

GPU Nuclear

THREE MILE ISLAND NUCLEAR STATION

Q. A. RECORD

ORIGINAL COPY

ASSESSMENT

OF THE

IMPLEMENTATION AND EFFECTIVENESS

OF THE

QUALITY ASSURANCE PROGRAM

To: Director, TMI Unit II
Director, Quality Assurance

cc: Vice-President/Director, TMI Unit I
Deputy Director, TMI Unit II
Executive Vice President
Vice-President/Director, Technical Functions
Vice-President/Director, Administration
Vice-President/Director, Nuclear Assurance
Vice-President/Director, Maintenance and Construction
Vice-President/Director, Radiological and Environmental Controls
QAD Section Managers

To: Director, TMI Unit II

From: Manager - TMI QA Modifications/Operations

Subj: Monthly VP/Director's Report for October, 1982

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SIGNIFICANT IMPLEMENTATION/EFFECTIVENESS ITEMS

(1) Activity/Deficiency Summary Figures/Trends

Activities

	Month	YTD		Month	YTD
OQA Monitorings:	66 (87)	692	QA Audits:	1 (1)	13
QC Inspections:	133 (57)	825	QA/QC Document Reviews:	159 (204)	2608

Deficiencies

	Issued		Closed		Total Remaining Open*		
	Month	YTD	Month	YTD	YTD	90 days	180 days
QDR's/Audit Findings:	3 (14)	58	5 (5)	106	71 (77)	4 (1)	28 (40)
MNCR's/RDN's:	14 (9)	154	9 (7)	111	52 (53)	11 (7)	26 (14)

YTD - Year to Date ( ) - Last Month's Figures
* Indicates those with Division Action Due

(2) Operations Quality Assurance has completed the review of Unit 2 Job Tickets as part of the response to NRC Inspection Report 50-320/82-10. The review was performed to check the adequacy in addressing technical requirements in the preparation of work requests and for the adequacy of detail in the Job Ticket resolution. Of the 1,137 Job Tickets reviewed, 117 were identified as having potential design concern. Quality Control is performing field verification on 31 Job Tickets to check as-built conditions. 86 Job Tickets were forwarded to Plant Engineering for evaluation. Some additional administrativ problems discovered were also sent to Plant Maintenance for review. Engineering and Maintenance are planning to disposition the items and issue a final report and status. Corrective actions, where required, will be identified in their repo

(3) There continues to be confusion and concern about the use of ES-011 to determine safety classification for components. ES-011 currently provides system level information. In January, 1982, an action plan was developed and agreed upon by Quality Assurance, Plant Engineering and Maintenance departments of both units, to provide component level information for safety classification. This involved Plant Engineering reviewing the previous quality classification list (GP-1008), updating it to reflect the ES-011 categories, and then incorporating it into ES-011 as an interpretation. This has not been done in either Unit. Unit 2 has drafted a component level list for recovery systems but has not issued it yet. Lack of action in this area continues to cause problems and delays in job planning, procurement of material, and withdrawal of warehouse material. Priorities appear to be a significant problem in solving this issue. Initial indications are that TMI Unit I personnel may still be using GP-1008 versus the new ES-011 process for interpretations.

(4) A Stop Work condition occurred in Unit 2 involving repeated violations of QA Program requirements for work being performed prior to the engineering document/ work authorization being issued. Engineering personnel were verbally dictating changes to construction personnel and work was being performed prior to issuance of the necessary design changes and work authorizations. A meeting

was held with Unit ? management and acceptable corrective action was taken. Short-term corrective action was completed immediately and the Stop Work Notice was not issued. A similar problem occurred earlier in the year which was resolved to some extent by a procedure change that provided better flexibility to perform work. This is being reviewed by Unit 2 personnel for possible application in Unit 2 as one of the permanent fixes to prevent reoccurrence to the problem.

RECOMMENDATIONS/ACTIONS REQUIRED

It is recommended that Management assess the priority of establishing component level information for safety classification.

B. E. Ballard, Sr.
Manager - TMI QA
Modifications/Operations

Month/Year: October, 1982

QUALITY ASSURANCE ACTIVITIES SUMMARY

Unit: TMI-1 [ ] TMI-II [X]

QA/QC Document Reviews

	Month	YTD	YTD With Comments	YTD QDR/MNCR Issued
Procedures/Plans/Programs	78	675	123	1
Engineering Documents/ Vendor and Contractor	26	210	61	0
Purchase Reqs/Orders	35	1024	93	0
Work Request/Work Schedules Work Authorizations	20	699	23	0
Other	0	0	0	0

QA Audits

	Month	YTD
Started	1	13
Completed (Issued)	0	9

Audited Areas	Findings Issued
Security	*
Maintenance & Construction	*
Environmental Controls	*
Materials Management	*

* In Progress

QA Monitoring

	Month	YTD
Scheduled	101	1049
Performed	66	692
QDR's/MNCR's Issued	2	14

QC Inspection

	Month	YTD
Scheduled	160	121
Performed	133	825
QDR's/MNCR's Issued	4	96

MONITORING/INSPECTION ACTIVITY BREAKOUT

Monitoring

	Scheduled	Performed Month	Performed YTD	YTD QDR/MNCR Issued
Operations/Tech Specs	16	12	129	2
Engineering	3	2	22	1
Start Up/Testing	0	0	1	0
Rad Controls/Environ	14	7	136	5
Chemistry	9	8	41	1
Admin/Security	15	6	121	0
Training	4	3	21	2
Fire Protection	7	4	27	1
Warehousing/Stores	4	2	18	1
NDE/Welding	3	3	22	3
Mech Preventive Maint	2	2	7	0
Mech Corrective Maint	2	2	30	0
Elec/IC Preven Maint	4	2	24	1
Elec/IC Correct Maint	6	3	40	0
Mod/I allations (Mech, Elec, I&C)	4	2	8	0

Inspection

	Scheduled	Performed Month	Performed YTD	YTD QDR/MNCR Issued
Fire Protection	0	0	0	0
Receiving	50	46	467	76
Civil/Structural	2	2	34	5
Mech Preventive Maint	4	2	8	0
Mech Corrective Maint	13	0	15	0
Mech Mod/Installation	4	5	53	1
Elec Preventive Maint	1	1	11	1
Elec Corrective Maint	2	0	10	0
Elec Mod/Installation	2	2	5	0
Welding	54	54	153	7
I&C Preventive Maint	1	1	1	0
I&C Corrective Maint	6	1	7	0
I&C Mod/Installation	6	4	24	4
ISI NDE	0	0	0	0
Modu/Installation NDE	15	15	37	2
Warehouse/Material				

Month/Ye: October, 1982

QUALITY ASSURA DEFICIENCY SUMMARY

Unit: TMI-1 [ ] TMI-2 [ ]

TMI Division:	QDR's/AUDIT FINDINGS ISSUED: QDR's Month	QDR's YTD	Audit Findings Month	Audit Findings YTD	QDR's/AUDIT FINDINGS CLOSED: QDR's/Audit Findings Month	QDR's/Audit Findings YTD	Status: Total QDR's Open	Total Audit Findings Open	QDR/AF Division Action Due	QDR/AF Committed Implement Due Date Not Reached	Response Problems: QDR/AF Initial Response Overdue	QDR/AF Corrective Action Completion Overdue	QDR/AF Open >90/>180 Days and Division Action Due >90 days	QDR/AF Open >90/>180 Days and Division Action Due >180 days
Operations	0	7	0	1	0	35	6	0	2	0	0	2	0	2
Engineering	1	6	0	0	0	16	5	2	6	2	1	2	1	3
Maintenance	1	9	0	1	1	16	5	3	6	1	0	4	1	4
Recovery Prog.	1	5	0	1	1	3	5	2	4	0	0	3	0	3
Admin/Other	0	3	0	1/1	0	5	7	4	6	1	0	5	1	5
TMI Division TOTAL:	3	30	0	5	2	75	28	11	24	4	1	16	3	17
Other Divisions:		*		*										
Tech Functions	0	2	0	0	0	3	3	0	1	0	0	1	0	1
Maint/Const	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Rad/Environ	0	5	0	0	2	12	2	1	1	1	0	3	1	0
Admin/Other	0	0	0	0/6	0	3	0	15	15	2	6	7	0	9
Nuclear Assur	0	2	0	0/8	1	11	2	9	7	6	1	0	0	1
All Divisions TOTAL:	3	39	0	19	5	106	35	36	48	13	8	24	4	28

* Data shown indicates "No. Issued Against Specific Unit"/"No. Issued That Are Not Unit Specific"

MATERIAL NONCONFORMANCE REPORTS

MNCR's/RDN's

Organization:	In House For Disp/Action	MNCR/RDN Open >90/>180 Days & Action Required	
Plant Maint/Ops/Engr	21	4	11
Maint/Constr	3	1	1
Technical Functions	1	1	0
Material Mgmt	18	3	9
	5	2	1

MNCR's/RDN's

	Month	YTD
Total Issued (1982)	14	154
Total Closed	9	111
Total Open		52

CONDITIONAL RELEASES YTD

	1982 Issued	1982 Closed	Remaining Open
Type I Installation Only	0	0	6
Type II SU/T Only	0	0	0
Type III Operations	0	0	1

MATERIAL HOLD TAGS YTD

	1982 Issued	Closed	Remain Open
Warehouse	210	151	59
In Plant	38	27	11
Total	248	178	70

ATTACHMENT 5

QUALITY ASSURANCE MODIFICATIONS/OPERATIONS SECTION DOCUMENT REVIEW SUMMARY

Unit: II Reviewed By: QC [✓] QA [ ] D.R. No: 20093-83

Reviewer: RALPH F. MUNZ (Name) QC PROG. (Title)

Document Title: UNIT 2 POLAR CRANE LOAD TEST

Document No: UCI-4370-3891-83-PC-1 Rev: 4 Date: 3-18-83
(TP 141/1 TO MTX TS 182)

I. Conventional Quality Assurance Plan Compliance: [ ]

Recovery Quality Assurance Plan Compliance: [✓]

	Sat.	Unsat.	Not Applic.
A. Criteria:			
1. Organization			✓
2. Quality Assurance Program			✓
3. Design Control			✓
4. Procurement Document Control	✓		
5. Instructions, Procedures and Drawings			✓
6. Document Control			✓
7. Control of Purchased Materials, Equipment, and Services			✓
8. Identification and Control of Materials, Parts & Components			✓
9. Control of Special Processes			✓
10. Inspection	✓		
11. Test Control	✓		
12. Control of Measuring and Test Equipment			✓
13. Handling, Storage and Shipping	✓		
14. Inspection, Test, and Operating Status			
15. Nonconforming Materials, Parts, or Components			✓
16. Corrective Action			✓
17. QA Records			✓
18. Audits	N/A	N/A	N/A
B. QA Plan Organization:			✓
B. Document Control Responsibility	✓		
C. USNRC Regulatory Guides			

C. Comments and Summary: N/A

Inter-Office Memorandum

GPU Nuclear

Date March 8, 1983
4370-83-5002

Subject: Comment Resolution: Polar Crane Load Test Procedure

To J. C. Fornicola
Operations QA Manager

Location Three Mile Island Unit 2
Trailer 105
File: 0303.5/4700 NR

The Polar Crane Task Group has reviewed your comments on the Polar Crane Load Test Procedure as presented on D.R.N. 20093-83 dated 3/3/83. The resolution of each of these comments is presented below:

COMMENT NO.	RESOLUTION
1	Cover Page Revised.
2	(a) Blanks added. (b) Reference to Lifting Manual added as 2.1[illegible]. (c) Sign-off added. (d) Section added. (e) Blanks added. (f) Not necessary in this procedure. (g) Noted in section 10. (h) Test Exception and Deficiency List is now Enclosure #1. (i) Sheet included. (j) Included per AP 1047, Enclosure #1/part 2.
3	Deleted by QA.
4	Your comment is correct, however it will be in place prior to execution of load test. It is currently scheduled for sign-off 3/7 and 3/8.
5	4370-3891-83-P00001.
6	Agree! Changed to six inches. Thank You!
7	Temperature will be obtained from Duty Control Room Operator (8066). Readings will be in degrees farenheit from sensor at 350' elevation. See referenced steps for changes.
8	Programmatically, you should take this issue up with Design Engineering.

FILE [illegible]

ON 3-23-83, R. GALLAGHER OF SITE ENG. AND RICK JACKSON OF BECHTEL DESIGN ENG. WERE CONTACTED PER JACKSON, NO NDE (PT OR MAG PARTICLE) IS REQUIRED [illegible] LOAD TEST.

COMMENT NO.	RESOLUTION
9	There was no confusion prior to this comment. Any indication greater than 360,000 pounds will enhance load test results.
10	Coordination with SU&T Manager will be made to insure test and scope are placed in MTX.
11	All T.I.'s have been reviewed. Adjustments to this procedure have been made where deemed appropriate.

You should expect to receive revision 3 of the Polar Crane Load Test Procedure for signature this week. If there are any questions, please contact Mike Radbill at extension 8865.

D. M. Lake
Manager, Recovery Operations

MER:jmb

Attachment: Document Review No. 20093/83

cc: R. L. Freemerman, w/a
M. K. Pastor, w/a
D. R. Buchanan, w/a
R. J. Barkanic, w/a
R. L. Rider, w/a

Attachment ...

4 of 4 / 3 [illegible]

QUALITY ASSURANCE MODIFICATIONS/OPERATIONS SECTION
DOCUMENT COMMENT SUMMARY

Page 1 of 3

To: M. RADBILL — Bechtel Polar Crane Task Group — 2.
Name — Title — Location

The subject document has been reviewed and the comments listed below are transmitted for your attention and resolution with the identified reviewer.

Document Title: LOAD TEST FOR POLAR CRANE

Document No: UWI 4370-3891-83-PC C001 — Revision No: 2 — Document Date: 2-26-83 (Rec'd 3-3-83)

Document Review No: 20093-83 — Date of Review: 3-3-83

Review Based On: TI#1, ENCLOSURE 1 of AP 1047 4000-ADM-3000.01 Rev-0 RECOVERY QA PLAN Rev 2

Comment No.	Page	Section, Para, Line or Dwg.	Comment
1	COVER	N/A	COVERSHEET IS NOT IN COMPLIANCE WITH PART I IN REF. (1). LACKS TEST RESULTS ACCEPTANCE AND TWG APPROVAL OF TEST RESULTS.
2	VARIOUS	VARIOUS	PROCEDURE FORMAT DOES NOT INCLUDE ALL REQUIREMENTS AS SPECIFIED IN TI-1, ENCLOSURE 1 FOR AP1047. ie,
		OK	(a) NO INITIAL BLANKS FOR CHECKING OF REVISION NUMBERS AS SPECIFIED IN TA-3 FOR REFERENCES [illegible]
		OK Interface [illegible] within manual	(b) WHAT [illegible] VENDOR MANUAL REQUIRED FOR PROC PREPARATION? IF NOT IT SHOULD BE NOTED AS N/A IN SECTION 2.
		OK	(c) IF THERE WAS SPECIAL [illegible] IT SHOULD BE NOTED WITH A [illegible]. IF NOT, THEN IT SHOULD BE NA IN SECTION 4.2
		OK	(d) THERE IS NO SECTION FOR "TECHNICAL SPECIFICATIONS" UNDER PREREQUISITES SECTION 4.0.
		OK	(e) BLANKS SHOULD BE PROVIDED IN THE LEFT MARGIN FOR TEST ENGINEER'S INITIALS IN SECTION 9.1 THRU 9.15
		BLANKS ADDED IS ADEQUATE. [illegible]	(f) NORMALLY AT THE END OF EACH MAJOR SECTION THE FOLLOWING STATEMENT IS APPLICABLE:

cc:

*Comments marked with an asterisk do not require response or resolution with QA/QC.

Reviewer: [signature]

MGR/SUPV: [signature]

File:

Comments resolved [signature] 3/23/83

[signature] 3/23/83

FILE COPY

TMI-217 7-80

MQ-801-1 (Rev. [illegible])

DOCUMENT COMMENT SUMMARY
CONTINUATION SHEET

DRN No: 20093-83

Q. A. RECORD ORIGINAL COPY

Comment No.	Page	Section, Para, Line or Dwg.	Comment
OK 5	7	8.1	WHAT IS THE COMPLETE [illegible]
OK 6	8	9.1.1	SHOULDN'T LIFT BE MADE TO 6 INCHES. IF YOU LIFT IT TO 3 INITIALLY HOW CAN YOU LOWER IT TO THREE TO CHECK BRAKES?
OK 7	10/11 12	9.5.1/9.8.2 9.15	WHERE WILL THIS TEMP. READING BE OBSERVED? GAUGE NUMBER OR THERMOMETER? FAHRENHEIT OR CENTIGRADE SHOULD BE [illegible] [illegible]) WILL CALIBRATION DATA BE RECORDED
8	N/A	N/A	ONE OF THE TEST OBJECTIVES WAS TO DEMONSTRATE THE STRUCTURAL INTEGRITY OF THE RIGGING TO BE USED TO LIFT THE HEAD. IT WOULD SEEM APPROPRIATE THAT NDE BE PERFORMED ON THE LOAD BEARING MEMBERS FOR ANY UNSAT CONDITIONS A SIMILAR SITUATION CAME UP WITH THE RIGGING FOR HOOKING UP THE 5 TON HOIST TO THE MAIN HOOK. IN THAT CASE ANSI 14.6-1978 WAS USED AND LIQUID PENETRANT OR MAG PARTICLE COULD BE USED PER SECTION 5.5 AFTER TESTING. ACCEPTANCE CRITERIA WOULD BE PARAGRAPHS NE-5350 OR NE-5340 FROM ASME B&PV VESSEL CODE, SECT III, DIV. I
N/A per design engineering (R. JACKSON) - See attached comment resolution memo 4370-83-5003 for QC attention. [signature]			
9	[illegible] 15	[illegible] 10.24	[illegible] FLUID TO THE ACCEPTANCE CRITERIA SO THERE IS [illegible] CONFUSION.
[illegible]	[illegible]	[illegible]	

ATTACHMENT 6

FEBRUARY, 1983

MAR 9 1983

GPU NUCLEAR

THREE MILE ISLAND NUCLEAR STATION

ASSESSMENT OF THE IMPLEMENTATION AND EFFECTIVENESS OF THE QUALITY ASSURANCE PROGRAM

TO: DIRECTOR-UNIT II
DIRECTOR-QUALITY ASSURANCE

cc: VICE PRESIDENT/DIRECTOR-UNIT I
DEPUTY DIRECTOR-UNIT II
EXECUTIVE VICE PRESIDENT
VICE PRESIDENT/DIRECTOR-TECHNICAL FUNCTIONS
VICE PRESIDENT/DIRECTOR-ADMINISTRATION
VICE PRESIDENT/DIRECTOR-NUCLEAR ASSURANCE
VICE PRESIDENT/DIRECTOR-MAINT. & CONST.
VICE PRESIDENT-DIRECTOR-RAD. & ENVIRON. CONTROLS
QAD SECTION MANAGERS
BECHTEL QUALITY ASSURANCE

ORIGINAL COPY

INFORMATION ONLY

Q. A. RECORD

TO: Director, Unit 2

FROM: Manager - TMI QA Modifications/Operations

SUBJ: Monthly VP/Director's Report for February, 1983

General Discussion

This report is submitted for information and use in management's continual assessment of the implementation, status, and effectiveness of the Q.A. Program on the Unit. Input into this report is provided by the Quality Assurance Design/Procurement, Modifications/Operations and Program/Audit Section of the Q.A. Department. Recommendations or constructive criticism on the content or scope of this report are encouraged and requested. The initial distribution of this report is limited, but Divisions are encouraged to distribute copies as they see fit within their organizations. As this report is a Quality Assurance Record, copies are maintained in the site's Q.A. Record Vault. When significant events or problems require formal management action to be taken in accordance with Q.A. Plan requirements, these actions may periodically be identified and requested in this report. These type actions will normally be limited to those problems or events which are of such significance or nature that they either require more than one organization or division to resolve or are significant programmatic problems that require high level management notification.

There are four different categories of QA Department deficiency reports discussed in this report. They are described below:

A. QUALITY DEFICIENCY REPORTS (QDR's)

Deficiencies other than material noncompliances of hardware items, usually issued to document software of activity items such as procedural noncompliance, procedure inadequacy, failure to meet commitments, etc.

B. MATERIAL NONCONFORMANCE REPORTS (MNCR's)

Material deficiencies pertaining to hardware structures, systems or components which render the quality of the item unacceptable or indeterminate.

C. RECEIPT DEFICIENCY REPORTS (RDN's)

Used to document and track purchased items which arrive on site lacking Purchase Order required documentation such as Certificates of Compliance or test reports. RDN's are always issued against the GPUN Materials Management Group for resolution with vendor. A copy is provided to the material user.

D. AUDIT FINDING

Used to document and track QA programmatic deficiencies of either GPUN or vendors/contractors.

Each month a detailed report on the status of MNCR's, QDR's, Receipt Deficiency Notices and Audit Findings is issued (separate from this one) to all appropriate levels of unit management/supervision for their review and action. These reports indicate responsible party for action, type deficiency, subject area, vendor, etc. so that middle and first level management/supervision are aware of quality related deficiencies, their status and their disposition.

SIGNIFICANT IMPLEMENTATION/EFFECTIVENESS ITEMS

(1) Activity Deficiency Summary Figures/Trends:

Activity

	Month	YTD		Month	YTD
OQA Monitorings:	37 (33)	70	QA Audits :	0 (2)	2
QC Inspections :	76 (181)	257	QA/QC Document Reviews:	137 (140)	277

Deficiencies

	Issued		Closed		Total Remaining Open*		
	Month	YTD	Month	YTD	Total	90 days	180 days
QDRs/Audit Finds:	4 (2)	6	13 (14)	27	35 (36)	7 (0)	12 (18)
MNCRs/RDNs	13 (10)	23	14 (15)	29	51 (52)	8 (2)	16 (19)

YTD - Year to Date
( ) - Last Month's Figures
* - Indicates with Division Action Due

(2) Bechtel has indicated disagreement with the alternate position included in Rev. 2 of the Recovery QA Plan (Appendix C, Part 2) regarding GPUN's compliance with Reg. Guide 1.29. Bechtel has proposed alternate wording which is being reviewed by GPUN for incorporation into the Recovery QA Plan.

(3) Effective February 24, 1983, AP-1042, Revision 2 (TMI-1) was officially approved. As a result of this approval, the TMI-1 Welding Program will no longer be limited to ITS/NSR welding, but has been extended to include all welding related activities.

(4) Investigation into the problem with Ray Miller materials identified on IE Notice 83-01 is continuing. Ten (10) Purchase Orders from Ray Miller, Inc. have been identified to date. B&W has also informed us of three tanks furnished to TMI-1 -- Caustic Tank, Lithium Hydroxide Tank and the Make Up Tank -- that have fittings furnished from Ray Miller. The Engineering groups on site are evaluating the end use applications for all the material identified. Unit 2 Engineering groups have evaluated the end use applications and have determined that there is no impact on them. Unit 1 Engineering evaluation is still in progress.

(5) Inspection discovered rust/corrosion problems where firewall 50 material contacts galvanized penetrating items. Plant Engineering has decided to postpone evaluation via a restart item. Letter to Licensing is to be forthcoming. A question of fire barrier materials affecting structural components (i.e., cable trays, conduits, etc.) has been asked to TMI-1 Engineering in regards to Plant Appendix R mods.

(6) Quality Assurance has reviewed the Polar Crane Load Test Safety Evaluation and has provided comments to the Director Unit 2. QA will also be reviewing the completed document packages for Polar Crane refurbishment, prior to Load Test, to verify acceptability of modifications, replaced material, inspections and tests that have been performed. Quality Control has witnessed the operational (no load) test which was performed satisfactory.

(7) There continues to be problems associated with compliance to the administrative controls for work in Unit 2. During a review of Polar Crane Refurbishment activities, numerous administrative program violations were identified. The original concept for Polar Crane Refurbishment was to turn the crane back to construction, with the work to be accomplished per the Recovery Operations Program. The Recovery Operations procedures are internal procedures and have not been reviewed or approved by any other TMI-2 Department, and the existing Unit 2 procedures were not revised to define any requirements for "turn back" to construction. As a result, there were numerous concerns raised as to how the work was accomplished and when the work was completed. The requirements and responsibilities for testing and returning the crane to service were not defined, which resulted in delays to the crane testing until they were resolved.

The specific administrative program violations will be addressed separately, however, it is Quality Assurance's perception that this is not a unique case associated with the Polar Crane but a continual problem in Unit 2 with implementation of administrative controls. It is recognized that the current activities in Unit 2 may not always fit the established Operational Administrative Controls; however, it appears that when a new activity is initiated in Unit 2 that doesn't exactly fit into the established controls, the tendency is to work around the program, rather than making the necessary procedure changes to accommodate the new activity or situation.

We feel that implementation of the Unit Work Instruction for all activities in Unit 2 will help to resolve some of the problems but full commitment to the total administrative program by all departments is needed to put this issue to bed. Quality Assurance will continue to work with Unit 2 management in resolving this issue.

RECOMMENDATIONS/ACTIONS REQUIRED

TMI Unit II management must assure that work activities are conducted in accordance with presently approved program procedures or revise those procedures appropriately to reflect new practices on management programs. It is recommended that this be given high priority. Action will be directly requested form the Manager - Recovery Programs that will assure no further work activities are conducted that violate plant administration program controls or QA Stop Work Action will be initiated. The Director TMI Unit II will be kept informed of the status of this action.

B. E. Ballard, Sr.
Manager - TMI QA
Modifications/Operations

Month/Year: February, 1981

QUALITY ASSURANCE ACTIVITIES SUMMARY

Unit: TMI-1 [ ] TMI-II [x]

QA/QC Document Reviews

	Month	YTD	YTD With Comments	YTD QDR/MNCR Issued
Procedures/Plans/Programs	39	97	31	0
Engineering Documents/ Vendor and Contractor	20	36	11	0
Purchase Reqs/Orders	40	85	19	0
Work Request/Work Schedules Work Authorizations	17	26	1	0
Other	21	33	2	0

QA Audits

	Month	YTD
Started	0	1
Completed (Issued)	0	2

Audited Areas	Findings Issued
ODCM	*
Maintenance & Construction	*

*In Progress

QA Monitoring

	Month	YTD
Scheduled	66	134
Performed	37	70
QDR's/MNCR's Issued	3	3

QC Inspection

	Month	YTD
Scheduled	96	304
Performed	76	257
QDR's/MNCR's Issued	13	21

MONITORING/INSPECTION ACTIVITY BREAKOUT

Monitoring

	Scheduled	Performed Month	Performed YTD	YTD QDR/MNCR Issued
Operations/Tech Specs	2	2	7	0
Engineering	1	1	2	0
Start Up/Testing	0	0	0	0
Rad Controls/Environ	4	3	5	0
Chemistry	0	0	0	0
Admin/Security	12	9	16	0
Traiuing	5	3	5	1
Fire Protection	5	2	6	1
Warehousing/Stores	2	1	1	0
NDE/Welding	3	0	3	0
Mech Preventive Maint	2	0	1	0
Mech Corrective Maint	3	1	2	0
Elec/IC Preven Maint	11	7	8	1
Elec/IC Correct Maint	4	0	1	0
Mod/Installations (Mech, Elec, I&C)	4	0	2	0

Backshift: 0

Inspection

	Scheduled	Performed Month	Performed YTD	YTD QDR/MNCR Issued
Fire Protection	0	0	0	0
Receiving	49	49	95	17
Civil/Structural	6	4	6	1
Mech Preventive Maint	3	0	2	0
Mech Corrective Maint	11	2	3	0
Mech Mod/Installation	1	1	6	1
Elec Preventive Maint	3	2	3	0
Elec Corrective Maint	6	4	6	2
Elec Mod/Installation	0	0	0	0
Welding	8	8	81	1
I&C Preventive Maint	3	3	5	0
I&C Corrective Maint	2	0	2	0
I&C Mod/Installation	2	1	2	1
ISI NDE	2	2	2	0
Mods/Installation NDE	0	0	44	0
Warehouse/Material				

Month/Year: February, 1983

QUALITY ASSURANCE DEFICIENCY SUMMARY

Unit: TMI-1 [ ] TMI-II [x]

TMI Division:	QDR/AUDIT FINDINGS ISSUED: QDR's Month	QDR's YTD	Audit Findings Month	Audit Findings YTD	QDR's/AUDIT FINDINGS CLOSED: QDR's/Audit Findings Month	QDR's/Audit Findings YTD	QDR's/AUDIT FINDINGS OPEN: Status: Total QDR's Open	Total Audit Findings Open	QDR/AF Division Action Due	QDR/AF Committed Implement Due Date Not Reached	Response Problems: QDR/AF Initial Response Overdue	QDR/AF Corrective Action Completion Overdue	QDR/AF Open >90/>180 Days and Division Action Due >90 days	>180 days
Operations	1	1	0	2	2	2	4	2	4	3	0	1	1	0
Engineering	0	0	0	0	0	3	4	2	5	2	0	3	0	3
Maintenance	2	2	0	0	0	0	7	0	5	5	0	0	0	0
Recovery Prog.	1	1	0	0	0	0	7	2	6	3	1	2	0	2
Admin/Other	0	0	0	0	5	7	4	0	1	0	0	0	0	1
TMI Division TOTAL:	4	4	0	2	7	12	26	6	21	13	0	6	1	6
Other Divisions:		*		*										
Tech Functions	0	0	0	0	1	1	1/1	0	0	0	0	0	0	0
Maint/Const	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rad/Environ	0	0	0	0	4	5	1/1	1	1	1	0	0	0	0
Admin/Other	0	0	0	0	1	7	0	8	8	0	1	7	2	6
Nuclear Assur	0	0	0	0	0	2	2	4	5	0	0	5	4	0
All Divisions TOTAL:	4	4	0	2	13	27	30/3	19	35	14	1	18	7	12

* Data shown indicates "No. Issued Against Specific Unit"/"No. Issued That Are Not Unit Specific"

MATERIAL NONCONFORMANCE REPORTS

MNCR's/RDN's

Organization:	In House For Disp/Action	MNCR/RDN Open >90/>180 Days & Action Required	
Plant Maint/Ops/Engr	26	3	14
Maint/Constr	1	0	1
Technical Functions	1	0	1
Material Mgmt	21	5	6
Recovery Programs	3	0	1
Other	1		1

MNCR's/RDN's

	Month	YTD
Total Issued (1983)	13	27
Total Closed	14	29
Total Open		53

CONDITIONAL RELEASES YTD

	1983 Issued	1983 Closed	Remaining Open
Type I Installation Only	0	0	0
Type II SU/T Only	0	0	0
Type III Operations	0	0	0
Total	0	0	0

MATERIAL HOLD TAGS YTD

	1983 Issued	Closed	Remain Open
Warehouse	9	13	44
In Plant	5	1	26
Total	14	14	70

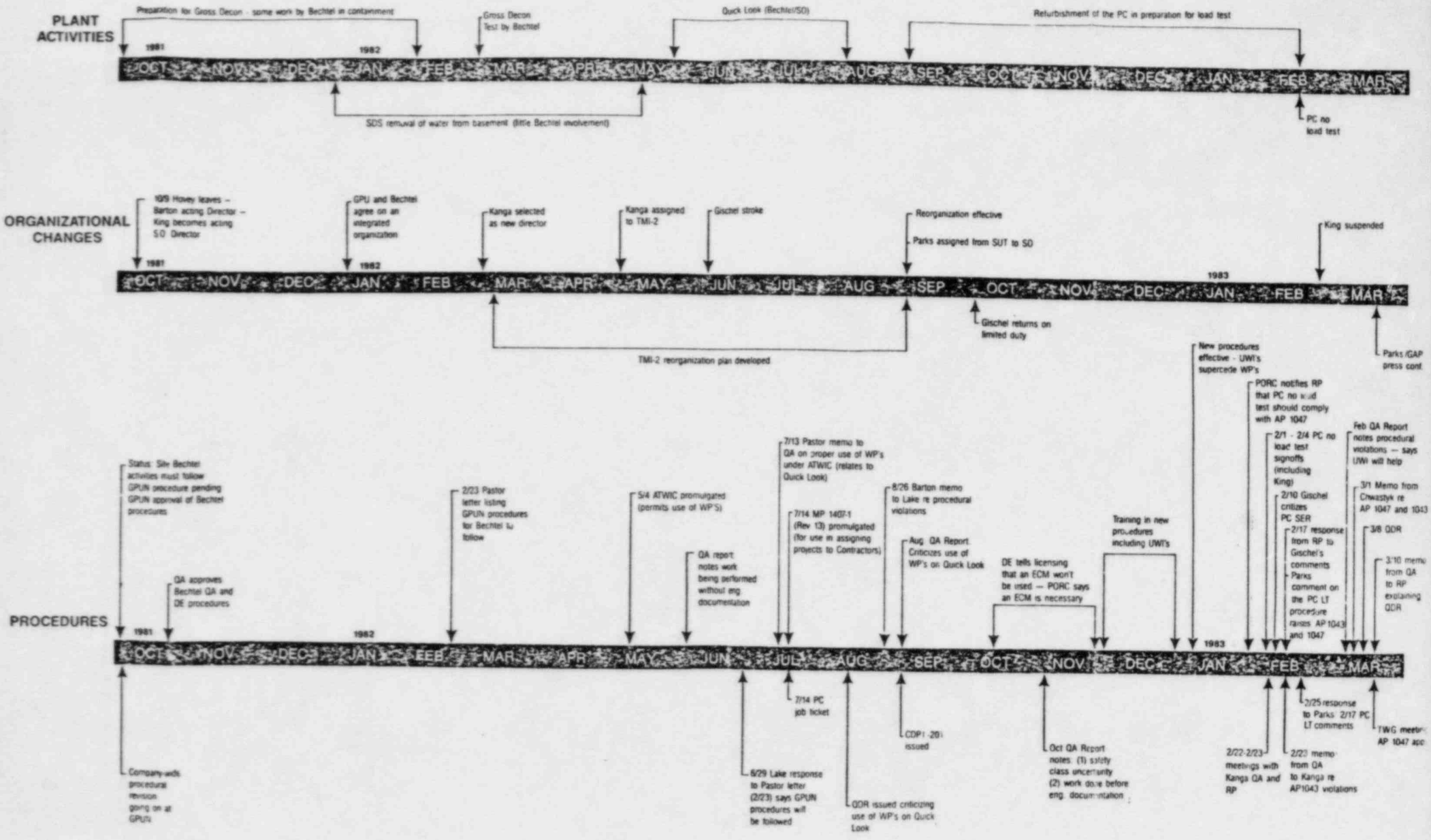
PLANT ACTIVITIES
Preparation for Gross Decon - some work by Bechtel in containment
Gross Decon Test by Bechtel
Quick Look (Bechtel/SO)
Refurbishment of the PC in preparation for load test
1981
1982
OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR
SDS removal of water from basement (little Bechtel involvement)
PC no load test
ORGANIZATIONAL CHANGES
10/9 Hovey leaves – Barton acting Director – King becomes acting SO Director
GPU and Bechtel agree on an integrated organization
Kanga selected as new director
Kanga assigned to TMI-2
Gischel stroke
Reorganization effective
Parks assigned from SUT to SO
King suspended
1983
Gischel returns on limited duty
TMI-2 reorganization plan developed
Parks /GAP press conf
PROCEDURES
Status: Site Bechtel activities must follow GPUN procedure pending GPUN approval of Bechtel procedures
QA approves Bechtel QA and DE procedures
2/23 Pastor letter listing GPUN procedures for Bechtel to follow
5/4 ATWIC promulgated (permits use of WP's)
QA report notes work being performed without eng. documentation
7/13 Pastor memo to QA on proper use of WP's under ATWIC (relates to Quick Look)
7/14 MP 1407-1 (Rev 13) promulgated (for use in assigning projects to Contractors)
8/26 Barton memo to Lake re procedural violations
Aug. QA Report Criticizes use of WP's on Quick Look
DE tells licensing that an ECM won't be used — PORC says an ECM is necessary
Training in new procedures including UWI's
New procedures effective - UWI's supercede WP's
PORC notifies RP that PC no load test should comply with AP 1047
2/1 - 2/4 PC no load test signoffs (including King)
2/10 Gischel critizes PC SER
2/17 response from RP to Gischel's comments
Parks comment on the PC LT procedure raises AP 1043 and 1047
Feb QA Report notes procedural violations — says UWI will help
3/1 Memo from Chwastyk re AP 1047 and 1043
3/8 QDR
3/10 memo from QA to RP explaining QDR
Company-wide procedural revision going on at GPUN
6/29 Lake response to Pastor letter (2/23) says GPUN procedures will be followed
7/14 PC job ticket
QDR issued criticizing use of WP's on Quick Look
CDPI-201 issued
Oct QA Report notes: (1) safety class uncertainty (2) work done before eng. documentation
2/22-2/23 meetings with Kanga QA and RP
2/25 response to Parks 2/17 PC LT comments
2/22 memo from QA to Kanga re AP1043 violations
TWG meetin AP 1047 app

TABLE 1