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REPORT OF INVESTIGATION

TITLE: GRAND GULF NUCLEAR POWER PLANT
POSSIBLE FALSIFICATION OF MECHANICAL
MAINTENANCE TRAINING RECORDS

RELATED DATA: 50-416

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SUMMARY

Summary

This investigation was initiated to obtain information regarding the possible falsification of mechanical maintenance training records at Mississippi Power and Light Company's (MP&L) Grand Gulf Nuclear Power Plant (GG). These training records are prepared and maintained as certification that mechanics are fully trained and qualified to perform plant maintenance functions. The record allegedly falsified is the Maintenance Mechanic Practical Factors (PF) book, an attachment to Plant Administration Procedure 01-S-04-17, which was first issued on January 29, 1982. A review of pertinent regulations, standards, guides, the Final Safety Analysis Report (FSAR) and the GG Technical Specifications disclosed that the PF book is not a specific regulatory requirement or commitment by MP&L/GG to the NRC. The PF book is a listing of forty-one (41) tasks and functions which are to be accomplished by each mechanic during his training period. The allegations of improprieties regarding the PF books were reported to the NRC Senior Resident Inspector at the GG facility and to an NRC, Region II Regional Administrator staff member by a Confidential Source (CS). Upon interview, the CS advised that some Mechanical Maintenance Supervisors (MMS) (first line supervisors) were arbitrarily signing and dating mechanics' PF books certifying that they (mechanics) could perform the listed tasks without actually observing them accomplish these functions. The CS further advised that the Mechanical Maintenance Superintendent and Assistant Mechanical Maintenance Superintendent (second line supervisors) distributed the PF books to the supervisors without the Plant Administrative Procedure and provided no guidance or instructions regarding the manner in which the PF book was to be completed. The CS advised that these two second line supervisors implied improprieties by directing the supervisors to use different colored pens over an extended period when signing and dating PF books to give the appearance of authenticity. The CS also expressed other training and technical concerns which were immediately referred to the appropriate NRC, Region II staff member for resolution.

In an effort to determine the scope and severity of the alleged falsification of mechanics' PF books, seven (7) current and former MMS were interviewed. One current MMS advised that he and a former MMS signed and

dated some PF book tasks after the mechanics verbally explained listed functions but without witnessing them perform these functions. He stated that he and another supervisor also dated PF book certifications for some mechanics prior to their employment at the GG facility because they had performed the functions at another job location. Another current supervisor advised that he also completed some of the PF book certifications without witnessing the performance of all listed tasks. Two current MMS advised that they completed PF books for mechanics assigned to their crews only after witnessing the performance of all tasks. One of the current supervisors reported that during the period he served as a journeyman mechanic his PF book was completed without all listed tasks being witnessed by his supervisor. All current supervisors advised that they are now aware of the procedural requirements to witness the PF book functions. Three of these MMS attributed ineffective management, inadequate communications between the levels of mechanical maintenance supervisors and first and second line management complacency regarding this procedure as the causes for PF book deficiencies. Three former MMS were interviewed and two reported they were never provided with a PF book for any mechanic while they served in a supervisory position. One of these former MMS acknowledged signing and dating some PF tasks without witnessing this activity. He also admitted pre-dating PF tasks prior to the employment of some mechanics at the GG facility because they (mechanics) claimed performing these functions at other job locations. None of the seven supervisors reported willful or deliberate falsification of PF books and each steadfastly denied that they were directed or instructed by their supervision to falsify or deceptively complete PF books. Six mechanical maintenance mechanics were interviewed and two acknowledged that their supervisors had signed and dated some PF tasks without witnessing their performance. Three of these individuals were uncertain as to whether a PF book had been completed in their behalf by their supervisors. All of these individuals steadfastly denied knowledge of willful or deliberate falsification of PF books by MMS personnel. The Mechanical Maintenance Superintendent and his assistant acknowledged that they had failed to properly implement the PF book project and also failed to provide adequate instructions to supervisors regarding this matter. They also admitted they had failed to supervise and monitor the progress of this project. Both

categorically denied that they had instructed, directed or suggested falsification of PF books. An MP&L/GG training official, who is responsible for maintaining the PF books, advised that he gave explicit instructions to the superintendents when he distributed the PF books, however, he acknowledged uncertainty regarding comprehension of instructions by these individuals. This MP&L/GG official also attributed PF book deficiencies to a breakdown in the communication process between levels of management. Two other plant officials advised that they conducted formal inquiries regarding PF book deficiencies and determined that some MMS failed to observe all PF book tasks for their mechanics. These officials advised that some MMS also credited mechanics with the functions they had performed at previous job locations. Both officials reported unequivocally that their inquiries disclosed no evidence of willful or deliberate falsification of PF books by supervisors or superintendents in the Mechanical Maintenance Section. Documentation reviewed during the investigation is reflective of statements by some MMS regarding credit for PF book tasks based upon experience received prior to employment at the GG facility. Memoranda prepared by GG plant officials subsequent to the discovery of the PF book deficiencies clarifies procedural requirements for this activity and directs a re-evaluation of all previously completed PF books to ensure compliance. Interviews of two NRC, Region II officials confirmed that the PF book is not a specific regulatory requirement or an MP&L/GG commitment but is required only by a plant procedure.

DETAILS

Purpose of Investigation

The purpose of this investigation was to obtain information and document the circumstances regarding the possible falsification of Mechanical Maintenance Training Records by Mechanical Maintenance personnel. These maintenance training records, which certify maintenance mechanics are fully trained and qualified, are prepared by Mechanical Maintenance Supervisors (MMS) at the Mississippi Power and Light Company's (MP&L) Grand Gulf Nuclear Power Plant (GG), Port Gibson, Mississippi, hereinafter referred to as "the licensee".

Background

On February 8, 1984, the U.S. Nuclear Regulatory Commission (NRC), Region II Investigation/Allegation Coordination Section telephonically contacted (Confidential Source) regarding alleged falsification of Mechanical Maintenance Training Records. The Confidential Source (CS), had previously reported these allegations to Alan G. WAGNER, who is the NRC Senior Resident Inspector there. During the telephonic conversation, the CS reported that

GG mechanical maintenance supervisors had improperly certified that mechanics had performed tasks listed in their Practical Factors (PF) book. According to the CS, some of the tasks listed in the maintenance mechanic PF book were signed and dated by "first line" supervisors although they did not witness the execution of these functions by the mechanics.

On February 16, 1984, in a letter to OI:RII referencing the Investigation/-Allegation Coordination Section telephonic conversation with the CS, James P. O'REILLY, Regional Administrator, Region II, NRC requested investigative assistance regarding possible falsification of mechanical maintenance PF books at the GG facility. A copy of the Region II, NRC investigation report letter dated February 16, 1984, with the Investigation/Allegation Coordination Section report attached, is EXHIBIT (1) to this report.

Applicable Regulations, Standards and Procedures

A review of the regulations, standards and procedures was conducted during the investigation to identify those which are deemed pertinent and applicable to the PF book issue. The following documentation was reviewed and is considered relevant to the investigation:

The Atomic Energy Act of 1954, as amended, at Chapter 10, Sections 101, 102 and 103, provides the authority for the licensing [by the NRC] of commercial facilities, including nuclear reactors utilized in the production of electricity.

The Code of Federal Regulations, at 10 CFR Part 50, entitled "Domestic Licensing of Production and Utilization Facilities" sets forth requirements for the licensing of utilization facilities (nuclear power plants). At Section 50.34(b), entitled "Final safety analysis report," it is stated that "each applicant for a license to operate a facility shall include a final safety analysis report". At 10 CFR 50, Appendix B, Criterion V, entitled, "Instructions, Procedures, and Drawings" it is stated that "activities affecting quality shall be prescribed by documented... procedures... of a type appropriate to the circumstances and shall be accomplished in accordance with these... procedures...."

The Final Safety Analysis Report (FSAR), at Chapter 1, Section 1.1.1, states that the "FSAR is submitted in support of the application" of MP&L "for a license," pursuant to Section 103(b) of the Atomic Energy Act of 1954, as amended, and Part 50 of Title 10 to the Code of Federal Regulations. At Section 13.1.1.1.2.4, entitled "Development of Plant Maintenance Programs," it is stated that "the maintenance programs will be organized to ensure safe and efficient maintenance" of the GG facility. At Section 13.2.1.2, entitled "Training Programs for Non-Licensed Personnel" it is stated that "selected...personnel are provided the necessary training to satisfy the applicable requirements of their particular position. At Section 13.2.1.2.12, entitled "General," it is stated that "...specific programs of instruction are developed to fulfill the needs of personnel

assigned to...maintenance". At Section 13.2.3, entitled "Replacement Training," it is stated that "the purpose of the GGNS replacement training program is to ensure that replacement personnel satisfy the training requirements stipulated in ANSI N18.1-1971...." At Section 13.2.3.3, entitled "Nonlicensed Personnel Replacement," it is stated that "personnel filling positions not requiring an NRC operator's or senior operator's license shall meet the requirements stipulated in subsection 13.1.3 and will receive training as outlined in subsection 13.2.1.2".

The GGNS Technical Specifications, Section 6.3, entitled "Unit Staff Qualifications" states that "each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions...." At Section 6.4, entitled "Training" it is stated that "a retraining and replacement training program for the unit staff shall be maintained...." At Section 6.8, entitled "Procedures and Programs" it is stated that "written procedures shall be established, implemented and maintained" in accordance with the recommendations contained in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

U.S. Nuclear Regulatory Commission Regulatory Guide 1.33, entitled "Quality Assurance Program Requirements (Operations)" Appendix A, Section 9, addresses the procedures for performing maintenance on safety-related equipment. NRC Regulatory Guide 1.8, entitled "Personnel Selection and Training" references the provisions of American National Standards Institute (ANSI) N18.1-1971 as an acceptable and adequate "basis for the selection and training of nuclear power plant personnel...."

ANSI N18.1-1971 and ANSI/ANS 3.1-1971, Section 5.3, entitled "Training of Personnel Not Requiring NRC Licenses," states that "a training program shall be established for...technicians and maintenance personnel to meet requirements established by the facilities licensee...." At Section 5.3.4 of these standards, entitled "Training of Technician and Maintenance Personnel," it is stated that these personnel "shall be trained by on-the-job training...."

The GGNS Plant Operation Manual, Administrative Procedure 01-S-04-17, Revision 0, dated January 29, 1982, entitled "Mechanical Maintenance Retraining and Replacement Training Program, Safety Related" sets forth "guidelines for the conduct and implementation of the Mechanical Maintenance Training Program to ensure that fully trained and qualified maintenance personnel are available...." This procedure references the FSAR, Section 13.2 Training Program, the U.S. NRC Regulatory Guide 1.8, ANSI N18.1-1971 and Technical Specifications 6.3 and 6.4. At Section 6.2.4(f)(1) of this procedure it is stated that "each Maintenance Mechanic must be provided with a qualification card which lists the practical factors to be accomplished during (emphasis supplied) this training program." Attachment V to this procedure is the document entitled "Maintenance Mechanic Practical Factors Sheet."

Copies of all regulations, standards, guides, reports and procedures referenced in this section of the report of investigation are being retained in the case file at OI:RII.

INVESTIGATOR'S NOTE: The specific requirement of a Qualification Card or a Practical Factor book for mechanical maintenance mechanics is not addressed in any of the regulatory documentation, standards, guides, the Technical Specifications or the FSAR which were reviewed during the investigation. The only document in which the PF book for mechanics is referenced and specified as a requirement is the GG Plant Administrative Procedure 01-S-04-17, entitled "Mechanical Maintenance Retraining and Replacement Training Program."

Discussion of the Practical Factors Book

The Grand Gulf Nuclear Power Plant PF book (or sheets) for mechanical maintenance mechanics was, according to facility records, first promulgated with the issuance of Administrative Procedure 01-S-04-17, Revision 0 dated January 29, 1982. The PF book is Attachment V to this initial procedure and is entitled "Maintenance Mechanic Practical Factors Sheet." A review of this document disclosed a list of forty (40) mechanical functions and tasks which are to be performed "during" the mechanic training program. Currently, this Administrative Procedure is in the fourth revision and the number of PF tasks to be completed by mechanics, as reflected in the attached PF book, has increased to forty-one (41). Instructions contained in all revisions of this procedure indicate the tasks are to be accomplished by the mechanic during his training period. Revisions 0 and 1 reflect that the Maintenance Superintendent is responsible "...for ensuring that the Mechanical Maintenance personnel obtain the training and experience necessary to perform their responsibilities." Revisions 2, 3 and 4 states that "Mechanical Supervisors are responsible for ensuring that...practical factors are adequately performed." A copy of the PF book, which is Attachment I to Administrative Procedure 01-S-04-17, Revision 4 dated January 9, 1984, is EXHIBIT (2) to this report.

Contacts with David M. VERRELLI

David M. VERRELLI, Branch Chief, Division of Project and Resident Programs (DPRP), Region II, NRC was apprised of the technical mechanical maintenance training concerns which were expressed by the CS during his interview. These concerns along with three licensee documents which, according to the CS, contain misleading and deceptive information, were provided to VERRELLI during a personal briefing on February 23, 1984. On February 24, 1984, the technical (training) concerns and the licensee documents were formally transmitted in an Office of Investigations Field Office, Region II (OI:RII), memorandum to DPRP, Region II for any action deemed appropriate. The memorandum identifies all of the technical concerns expressed by the CS and which are reported in his Results of Interview. A copy of the OI transmittal memorandum, with the three (3) licensee documents attached, is EXHIBIT (5) to this report.

On April 2, 1984, DPRP, Region II advised OI:RII by memorandum that the concerns reported on February 23 and 24, 1984 had been evaluated. The memorandum from DPRP sets forth the results of the evaluation and actions resulting from or anticipated regarding the information reported by the CS. A copy of the April 2, 1984 DPRP memorandum is EXHIBIT (6) to this report.

Interviews of Mechanical Maintenance Supervisors

Interviews of both current and former MP&L/GG MMS were conducted regarding the purpose of this investigation. The following personnel were interviewed:

Current

Eddie Lee HENNINGTON
James Emanuel ROWLAND, Jr.
Melvin Lavelle MCGAHA
Gerald Clay BAKER, Sr.

Former

Michael Bruce MICHALSKI
William Thomas BRADLEY
Ernest Norman BROWN

HENNINGTON, who was interviewed on March 26, 1984 at his residence in [REDACTED] advised he has been employed at the GG facility as an MMS since March 1981. He said he received a PF book for each of his mechanics in early 1982 but did not receive a copy of the Plant Administrative Procedure (01-S-04-17) which implemented the PF book. He identified William R. BOOTS, Assistant Maintenance Superintendent, as the individual who distributed the PF book for each mechanic. HENNINGTON advised that BOOTS gave no instructions to him regarding the manner in which the PF book was to be completed; no time limits were imposed by BOOTS for completing the PF book; and BOOTS told him to "spread over a period of time" the certifying signatures/dates that were to be placed in each PF book. He said the supervisors used their imaginations regarding the manner in which they would complete the PF book for each mechanic. He stated he and former supervisor William BRADLEY agreed to assign the date a mechanic first performed the task listed in the PF book, whether or not he was an MP&L/GG employee at the time. He advised that after BOOTS concurred with this methodology he asked each mechanic in his crew to place the date on which

they had performed any of the tasks listed in the PF book. HENNINGTON advised that he then required each mechanic to verbally explain each task before he (HENNINGTON) signed the appropriate certifying space in the PF book. He acknowledged that a significant number of the PF tasks were signed by him, even though he had not observed the accomplishment of these tasks at the time he signed them. He stated he personally witnessed some of the PF book tasks prior to signing and said he subsequently witnessed his mechanics perform most of the functions that he previously certified. HENNINGTON advised that regardless of the method chosen by him to accomplish the PF book requirement, that is, either a verbal explanation of a task or observing a task, he was totally and completely satisfied that his mechanics were capable of performing the functions in a safe and competent manner. HENNINGTON blamed poor communications between the first and second levels of mechanical maintenance supervision and the failure of Assistant Superintendent BOOTS to initially provide a copy of the Plant Administrative Procedure to supervisors as the cause for the improper certification actions by the supervisors. He advised that at no time did he intentionally or deliberately falsify a PF book and stated he was never instructed or directed to falsify these documents by Mechanical Maintenance Superintendent STAER, by Assistant Superintendent BOOTS, or by any other MMS. He stated he is not aware of any MMS who has deliberately or intentionally falsified or deceptively completed a PF book. He stated that, in his opinion, all of the MMS actions regarding the PF book were performed with good intentions and in good faith but with no instructions or guidance from second line supervision. A copy of HENNINGTON's Results of Interview is EXHIBIT (7) to this report.

ROWLAND, who was interviewed on April 12, 1984 in the NRC office at the GG facility advised he has served as an MMS since February 1983. He stated he first saw the PF book in April 1983, even though he was employed as a journeyman mechanic at the GG facility in March 1981. He stated he was never queried as a journeyman mechanic regarding the tasks listed in the PF book and, to his knowledge, a PF book was never completed by supervisors in his behalf.

INVESTIGATOR'S NOTE: According to ROWLAND, his supervisor during the period of time he served as a journeyman mechanic was Claude RUCKER. The MP&L/GG Plant Manager advised that RUCKER

and he is no longer associated with the company.

ROWLAND advised that when he was provided copies of the PF book by BOOTS for each of his crew members, no instructions or directions were given regarding the manner in which he was to complete this document. He said he was told only that he had to complete a PF book for each mechanic and that he had a year in which to do so. ROWLAND advised that some tasks performed by the mechanics in his crew were witnessed by him and some tasks were verbally explained by the mechanics. He said that although he did not observe the performance of all tasks listed in the PF book, he was completely satisfied each mechanic could perform these functions before he signed and dated them. ROWLAND advised that the date assigned to each PF book task was either the date the mechanic performed the task or the date he verbally explained it. ROWLAND denied that he willfully or intentionally falsified PF books for crew members and reiterated that he was always totally and completely satisfied that each mechanic could perform a listed function before he (ROWLAND) signed and dated it. He acknowledged that he now realizes he failed to complete the PF book in the manner prescribed by the procedure, however, he did so because he only recently learned of the proper method for completing the PF book. ROWLAND concluded that, to his knowledge, the Mechanical Maintenance Superintendent STAER and the Assistant Superintendent BOOTS did not direct or instruct any supervisor to falsify or improperly prepare the PF book. He said that a failure by these individuals to properly manage and supervise this project and their apparent inability to effectively communicate instructions to the supervisors is the cause of the PF book deficiencies.

MCGAHA, who was interviewed on April 12, 1984 in the NRC office at the GG facility, advised he was initially employed by the licensee as a mechanic trainee in November 1981. He stated he was promoted to his present position as an MMS in November 1983. MCGAHA advised that he first saw the Mechanical Maintenance PF book in August 1983 when his former MMS

James BUCKALEW introduced him to this document. He said BUCKALEW queried him on this occasion regarding the performance of certain tasks listed in the PF book and after a satisfactory explanation of these tasks BUCKALEW signed and dated the certification block. He said BUCKALEW had previously witnessed him perform most of the tasks, however, there were some he had not observed. He said BUCKALEW dated the certifications on the dates of their conversation and not the date a particular task had been witnessed. MCGAHA said he first read the PF book implementing procedure (01-S-04-17) in December 1983 and recognized then that his own PF book had not been completed in accordance with this procedure. MCGAHA advised that since his promotion to MMS he has personally observed all tasks for his crew members and said he has not signed and dated any certification blocks unless he actually witnessed them perform the PF function. He stated that the cause of the PF problems is, in his opinion, the failure of second level supervision to communicate openly and adequately with the first level (MMS) and the lack of effective management involvement by second level supervisors STAER and BOOTS in organizing, directing and monitoring this project. MCGAHA concluded that, in his opinion, no level of plant or maintenance supervision willfully, intentionally or knowingly falsified or directed the falsification of a PF book.

BAKER, who was interviewed on April 11, 1984 at the GG Energy Services Building, advised he was promoted to an MMS in April 1982. He said he currently serves as Tool Room Supervisor at the GG facility, although he is still regarded as an MMS. He advised that sometime in 1982 PF books only (without procedures) were distributed to him by Assistant Superintendent BOOTS for each member of his crew. He said he recalled BOOTS or Maintenance Superintendent STAER telling him that the MMS should go out in the field (the plant) and make certain the mechanics could perform all of the tasks and functions listed in the PF book. He said he interpreted these instructions to mean that the supervisors should actually observe each task. BAKER advised that, to the best of his knowledge, he personally witnessed all PF tasks for his mechanics before signing and dating the certification blocks. He said he is not aware of any MMS who arbitrarily completed the PF book for their crew members and further advised he does not know of any willful or intentional falsification of this document.

BAKER concluded that he personally has no complaints about supervisory communications but acknowledged that he has no direct day-to-day contacts with second level management.

MICHALSKI, who was interviewed on April 11, 1984 at the GG Energy Services Building reported he served as an MMS from August 1979 to December 1982, when he became a Radwaste Supervisor. He stated he never saw Plant Administrative Procedure 01-S-04-17 or the PF book during the time he served as an MMS. He said the first time he saw a copy of the procedure is on the day he was interviewed by the NRC investigator, but said he was provided an information copy of the PF book in April 1983 by Assistant Superintendent BOOTS. MICHALSKI advised that he was never provided with PF books for his crew members while he served as an MMS and he did not certify his mechanics regarding any tasks listed in this document. He claimed no knowledge of improprieties regarding the PF book by any supervisor in the Mechanical Maintenance Section at the GG facility.

BRADLEY, who was interviewed on April 11, 1984 at his residence in [redacted] advised that he served as an MMS at the GG facility from April 1981 to February 1984 when he transferred to MP&L's Baxter-Wilson generating facility (fossil) in Vicksburg, MS. He related that about early 1982 he received a PF book from Mechanical Superintendent STAER for each of his crew members. He described the occasion by stating that other MMS were present and the PF books for each mechanic were bound in a three ring notebook. BRADLEY recalled that the PF book contained the Revision 0 notation in the upper right corner of each page. He said only a few of the assembled MMS received notebooks and that STAER held up one of the notebooks to explain the contents. He stated neither STAER nor Assistant Mechanical Superintendent BOOTS gave specific instructions on this occasion and said they unenthusiastically told the MMS to complete the PF books at their leisure and that they (MMS) would be audited occasionally on the progress being made. BRADLEY explained that the methods he utilized in completing the PF book for each mechanic consisted either of observing the function or having the mechanics explain the task. He advised that some mechanics indicated they had performed some of the functions and tasks in the PF book prior to their employment at the GG facility and therefore he

certified that they were proficient in these activities as of the date they were first performed. BRADLEY stated he satisfied himself completely that his mechanics could perform each task before he signed the PF book. He further advised that at least one or more supervisors also completed the PF book for their mechanics in this identical manner. BRADLEY said that in March 1984, the Assistant Plant Manager asked him to explain in a letter the reason that some PF book tasks pre-dated the mechanics employment at the GG facility. He concluded that he completed the PF book for his mechanics in the manner described because both STAER and BOOTS had failed to provide specific guidance and instructions regarding this matter. He categorically denied receiving any instructions from either STAER or BOOTS that were indicative of willful or deliberate falsification of the PF books and he advised he perceived no pressure from these individuals to urgently complete this project. BRADLEY concluded that the root causes of all problems associated with the PF book relate to inadequate channels of communications and directions between levels of mechanical maintenance management, the failure of STAER and/or BOOTS to provide adequate guidance and supervision regarding this project and the lack of enthusiasm for the PF book by these individuals.

BROWN, who was interviewed on April 12, 1984 in the NRC office at the GG facility, advised he served as an MMS from October 1980 to January 1983 when he transferred to the Radwaste Section. He stated that while serving as a MMS he was never provided with a PF book for any members of his crew. He said he could not recall Mechanical Superintendent STAER or Assistant Superintendent BOOTS ever mentioning a PF book to him for mechanics and said the first time he recalled seeing a copy of Plant Administrative Procedure 01-S-04-17 and attached PF book is the day he was interviewed by the NRC investigator. BROWN advised that, in his opinion, mechanical maintenance management (BOOTS and STAER) has been unacceptable and has failed to establish and maintain proper communications with the MMS. He concluded that he is not aware of any incidents of willful and deliberate falsification of PF books or other maintenance training records irregularities.

Interview of Mechanical Maintenance Mechanics

The following Mechanical Maintenance (Journeyman) Mechanics (MMM) were interviewed on April 12, 1984 in the NRC office at the GG facility:

Stuart Donovan PROCTOR

John Allan WHITE, Jr.

David Lynd BOWERS

Billy Ray BEARD

Charles Henry WEBER

Larry Earl KEEN

PROCTOR advised that since his employment as an MMM at the GG facility in August 1979 he has been assigned to at least five (5) different supervisors. He recalled that he once saw a PF book with his name written on it and which had been certified and dated by former supervisor Claude RUCKER. He said although RUCKER had signed and dated his (PROCTOR's) PF book without observing him perform the tasks and functions listed therein, he (PROCTOR) can and has performed each of these activities. He said in his opinion, RUCKER was satisfied with his (PROCTOR's) performance before he signed and dated the PF book. PROCTOR advised he has no knowledge of improper actions by supervisors with regard to PF book activities.

WHITE said he has been employed as an MMM at the GG facility since August 1981. He stated he also has been supervised by several individuals during this period and was not aware if any had started or completed a PF book in his behalf. WHITE reviewed the tasks/functions listed in the current PF book and advised he has performed all of these activities while employed at the GG facility. He claimed no knowledge of improprieties by supervisors regarding the PF book.

BOWERS, who has been employed as an MMM at the GG facility since November 1981, advised he first saw his PF book about February 1984. He said a former supervisor who is no longer employed by MP&L, and who had signed and dated some tasks in his PF book, witnessed the performance of some

activities and verbally queried him regarding the performance of other functions listed in the PF book. He stated his current supervisor (MCGAHA) had witnessed him perform all of the tasks about which the former supervisor had questioned him. BOWERS claimed no knowledge of improprieties by mechanical supervisors regarding the PF book.

BEARD, who has been employed as an MMM at the GG facility since April 1980, advised he has been assigned to at least seven (7) crews during this period. He said he first saw his PF book when a supervisor, name not recalled, told him mechanics were supposed to demonstrate their abilities to perform the listed functions. He said his current supervisor has witnessed all functions to which he has certified and stated he (BEARD) is capable of performing all of the tasks in the PF book. BEARD claimed no knowledge of improprieties by supervisors regarding the PF book or other maintenance training records.

WEBER, who has been employed as an MMM at the GG facility since June 1978, advised he first saw his PF book sometime in 1982. He said on this occasion his supervisor asked him if he could perform all tasks listed in the PF book although he (supervisor) did not sign or date this document. WEBER said the next time he saw his PF book was when current supervisor ROWLAND personally witnessed and certified some of the listed tasks. He said the PF book was assigned a low priority by maintenance management and they always appeared unconcerned about completing this document. WEBER claimed no knowledge of improper actions by MMS regarding PF books or other training records.

KEEN, who has been employed as an MMM since February 1979, said he has been assigned to five (5) supervisors during this period of time. He advised that former supervisor Gerald BAKER once discussed the PF book with him but he does not know if any tasks were certified by him. He said his current supervisor also discussed the PF tasks with him in December 1983, however, he stated he has not seen his PF book since that time. He stated he has never knowingly demonstrated any of the PF tasks to a supervisor but said he has performed all of them at one time or another in the normal conduct

of his duties. KEEN claimed no knowledge of willful and deliberate falsification of mechanic PF books by supervisors.

Interviews of MP&L/GG Management Officials

During the course of the investigation pertinent MP&L/GG management officials were interviewed regarding the purpose of this investigation. The following individuals were interviewed:

William Roy BOOTS
Dennis Olaf STAER
James Earl JONES
Charles Randy HUTCHINSON
James Edward CROSS

BOOTS, interviewed on April 12, 1984 in the NRC office at the GG facility, advised he has served as the Assistant Mechanical Maintenance Superintendent for approximately two years. He said he first saw the PF book, an attachment to Plant Administrative Procedure 01-S-04-17 about January 1982. He said on this occasion James E. JONES, Training Supervisor, delivered to him copies of the PF book for each mechanic assigned to the Mechanical Maintenance Section. He said JONES told him that the PF book is identical to the one recommended by the Institute of Nuclear Power Operations (INPO) and that both trainees and journeyman mechanics are required to participate in the completion of this document. BOOTS stated that JONES gave no further instructions except that the PF book was to be returned to the training department when completed. He said he did not receive a copy of the Plant Administrative Procedure at that time and had no knowledge as to how the PF book was to be implemented and completed. BOOTS explained he bound a copy of the PF book in a three ring notebook for each mechanic assigned to a crew and then gave one three ring notebook to each crew supervisor during a shift turnover meeting. He said he told the assembled MMS to complete a PF book for each mechanic. BOOTS denied that he told the supervisors to use different ink pens and dates to give the impression of authenticity. He acknowledged that he gave no specific directions to supervisors regarding the completion of the PF book because he had received none and stated he told them (MMS) unequivocally to make certain each mechanic was capable and qualified to perform the PF functions before signing and dating the PF book. He said he remarked to the supervisors

that "as long as you know the mechanics can perform the listed task, you can sign off on the PF sheet." He denied giving further instructions to the supervisors regarding completion of the PF book. He said he intended for supervisors to satisfy themselves that mechanics could perform the PF functions by either (1) witnessing the performance or by (2) having each mechanic verbally explain the performance. He said he did not intend for supervisors to witness all PF tasks if they were satisfied a mechanic could perform a particular function after a verbal explanation.

BOOTS acknowledged that he did not know the requirements of the Plant Administrative Procedure when he distributed copies of the PF book to the MMS. He said he first read this procedure in March 1984 and realized that the supervisors should have witnessed the performance of PF tasks to properly certify that their mechanics could satisfactorily perform each function. BOOTS said he failed to give proper and adequate instructions to the supervisors and that he inadvertently violated a GG plant procedure in doing so. He denied any improprieties regarding the PF book for mechanics and stated he never gave any instructions to supervisors which was suggestive of willful or deliberate falsification of these documents. He said he did recall that a supervisor, name not recalled, compared the PF book to the U.S. Navy Qualification Card and made the comment that Navy Qualification Cards are frequently radioed (completed without witnessing tasks). BOOTS advised that in the absence of definitive instructions and directions from him, some supervisors could possibly interpret that he concurred with this method (radio) of completing the PF book. He acknowledged that he exercised poor management regarding the PF book project and said he was remiss for not directing, monitoring and providing some definitive guidance regarding this activity. BOOTS reiterated he is aware that supervisors BRADLEY, HENNINGTON and possibly others, signed and dated PF books without witnessing some functions, however, he advised that, in his opinion, they did not deliberately or willfully falsify this document. He stated that he is also aware that some supervisors dated PF tasks prior to the employment of the mechanic at the GG facility. He advised that he accepted the responsibility for this and other mistakes made by supervisors regarding the PF book because he failed to adequately instruct, supervise and monitor this project. BOOTS denied that he

directed any supervisor to falsify the PF book or any mechanical maintenance training document.

STAER, interviewed on April 26, 1984 in the NRC office at the GG facility, advised he was employed by MP&L as the Mechanical Maintenance Superintendent in February 1982. He described the duties of the superintendent and advised that the PF book was implemented about the same time he was hired at the GG facility. He stated he was busy familiarizing himself with his responsibilities at that time and said he delegated the PF book project to BOOTS. He advised that he recalled the time the PF book was distributed by the training department to BOOTS, who in turn gave the supervisors a copy for each mechanic. He said he also recalled that BOOTS provided general instructions to each supervisor regarding the completion of this project. He said he also provided some very general guidance on this occasion but the responsibility for completing the project was delegated to BOOTS. STAER said he did not concern himself again with this project, assuming that BOOTS was providing the necessary direction, guidance and supervision to the supervisors as they were involved in the PF book activities. He stated he learned about March 1984 from BOOTS and some supervisors that concerns had arisen regarding the PF book project. He stated he learned that, through a lack of proper guidance, supervision, and communication with supervisors, the PF books were not completed according to the Plant Administrative Procedure. STAER categorically denied that he willfully or deliberately directed any supervisor to falsify PF books and further stated it was not until about March 1984 that he learned these documents had been completed in violation of the procedural requirements.

JONES, interviewed on April 26, 1984 in the NRC office at the GG facility, advised he is a former MMS and has served for the past two years as a Nuclear Instructor Supervisor in the Training Department. JONES recalled distributing PF books for all mechanics to BOOTS during early 1982. He said he could not recall giving BOOTS a copy of the plant administrative procedure which implemented the PF book. He said he told BOOTS to instruct supervisors to sign and date the PF tasks "as the mechanic performs them." He said he told BOOTS that the certifying dates should be the dates on which the tasks were observed by the supervisor. JONES stated that

possibly he did not adequately communicate these instructions to BOOTS or that he (BOOTS) did not understand this to be the correct method for completing the PF book. He said he specifically told BOOTS he did not want signatures and dates "radioed" (arbitrarily filled in) in the PF book or to even give the impression that they had been signed and dated in this manner. JONES advised that he placed no time limits on the completion of the PF book although he later told BOOTS he (JONES) would periodically audit the progress of this project. JONES concluded that, in his opinion, BOOTS did not communicate adequate directions to the supervisors regarding the PF book project and they in turn did not understand the requirement to visually witness the performance of each task. He said he is not aware of any intentional or deliberate attempts by any mechanical maintenance management personnel to falsify the PF book and that the current problems associated with the PF book resulted from improper communications, guidance and supervision.

HUTCHINSON, interviewed on April 12, 1984 in his office at the GG facility, advised he is an Assistant Plant Manager responsible for the activities of the maintenance division. He advised that, at the direction of the president of MP&L he conducted a study in early 1984 of FSAR commitments regarding maintenance training at the GG facility. He said this study disclosed that the mechanical maintenance PF book is not an FSAR commitment but a requirement of Plant Administrative Procedure 01-S-04-17. HUTCHINSON advised that the NRC Senior Resident Inspector at the GG facility cited the facility for violating this procedure when he noted that an entry pre-dated the mechanics' employment at the GG facility. He said that Plant Manager CROSS directed him to determine the circumstances of this entry pre-dating the mechanics' employment. He said his limited inquiry disclosed that two mechanics had been credited with performing a PF book function at another job location, prior to their employment at the GG facility and that the reason for this was due to an apparent lack of understanding of the procedural requirements by these individuals and the supervisors. He said he learned that mechanics and supervisors presumed that prior experience was an acceptable substitute for performing PF book tasks. He explained that this credit for prior experience had not been properly documented in the employee's record and therefore appeared to be improper. HUTCHINSON

stated that his inquiry did not disclose any evidence of willful and deliberate violations of the plant procedure or falsification of PF books. He said mismanagement, improper supervisory controls and inattention to details were the causes of this procedural violation. A copy of HUTCHINSON's Results of Interview is EXHIBIT (8) to this report.

CROSS, interviewed on April 12 and 26, 1984 in his office at the GG facility, advised he has served as the Plant Manager since November 1983. CROSS advised he began inquiring into the manner in which the Mechanical Maintenance PF book was being completed after learning in March 1984 that the NRC Senior Resident Inspector had discovered some deficiencies associated with this document. He said he first asked Assistant Plant Manager HUTCHINSON to conduct a limited inquiry into the matter and stated he then requested the facility QA manager to conduct a QA audit of the PF book activity. He advised he decided about March 22, 1984 to conduct a personal investigation of the PF book matter, at which time he began to query mechanics and supervisors regarding methodology utilized in completing this document. CROSS said he learned during these interviews that mechanics satisfied supervisors by either performing tasks in their presence or by explaining verbally PF book tasks. He said he also determined that supervisors did not receive proper and adequate instructions and directions regarding completion of the PF book and that they were not provided with a copy of the Plant Administrative Procedure until early 1984. CROSS advised that he did not determine the reason a copy of the procedure was not provided to supervisors. He advised further that he interviewed the Mechanical Maintenance Superintendent and his assistant and determined that they had furnished inadequate and incomplete directions to supervisors. CROSS stated that his inquiries have disclosed no evidence of willful falsification of PF books by any mechanical maintenance manager. He said he determined that the causes of the PF book deficiencies are poor management, generally at the second level, in the mechanical section, failure of managers to adequately communicate and failure to follow requirements of a plant procedure.

Review and Explanation of Pertinent Documents

During the investigation documents relating to mechanical maintenance training at the GG facility were provided by a licensee official. Additionally, an NRC Inspection Report dated March 30, 1984 contains information which is relevant to the investigation. A description and/or explanation of these pertinent documents as they relate to the purpose of the investigation is set forth in this section of the report.

EXHIBIT (9) is a copy of licensee memorandum IPC 84/2008 dated March 12, 1984 to the GG Plant Manager (CROSS) with exit meeting minutes attached. This memorandum references the exit meeting on March 7, 1984 between the NRC Senior Resident Inspector and GG officials during which deficiencies in the PF book program were discussed. According to the exit meeting minutes these deficiencies consisted of a PF book containing certifying signatures in a short span of time and certifying signatures in one mechanics' PF book which were dated prior to his employment with the company.

EXHIBIT (10) is a copy of NRC Inspection Report 50-416/84-07 dated March 27, 1984. Section 10(e) of the report reflects that the NRC Senior Resident Inspector noted discrepancies in the Mechanical Maintenance PF cards and associated training files. The inspection report reflects that, in some instances, these PF cards were either missing from the training files, were not completed by the mechanics and were dated prior to the time the mechanic was employed by the licensee.

EXHIBIT (11) is a copy of the MP&L/GG organization chart which identifies all of the GG plant components and levels of supervision. An enlargement of the Mechanical Maintenance section has been prepared on the organization chart to demonstrate the supervisory levels involved with the PF book issue. As reflected by the enlarged portion of the organization chart the Mechanical Superintendent (STAER) and the Assistant Mechanical Superintendent (BOOTS) are, according to the Nuclear Plant Manager (CROSS), regarded as "second line" supervision and the Mechanical Maintenance Supervisors are considered "first line" supervision.

EXHIBIT (12) is a copy of a memorandum, from former MMS BRADLEY addressed "To Whom It May Concern" and dated March 15, 1984. This document, provided by GG Assistant Plant Manager HUTCHINSON, reports the manner in which BRADLEY completed some elements of the PF book with his crew members and explains that some PF book functions were first performed prior to their employment at the GG facility and therefore were dated accordingly.

EXHIBIT (13) is a copy of a file memorandum from mechanic Ray HANDLEY dated March 16, 1984. This document, provided by GG Assistant Plant Manager HUTCHINSON, explains that some of HANDLEY's PF book elements pre-date GG employment because particular functions were first performed at previous job locations. The memorandum concludes that, in the opinion of the writer (HANDLEY), a misunderstanding existed regarding the proper method of completing the PF book elements.

EXHIBIT (14) is an unsigned, undated summary entitled "Maintenance Qual Card Issue." This document was provided by HUTCHINSON and reports a licensee review of "all maintenance qualification cards." It is further stated that the only discrepancy noted during the review was the credit given to HANDLEY by BRADLEY for PF book functions performed at a previous job location. The Summary concludes that "taking credit for previous experience" violates the conditions and requirements of a plant procedure.

EXHIBIT (15) is an undated MP&L/GG memorandum IPC 84/2075 from Assistant Plant Manager HUTCHINSON to Maintenance Superintendents and Supervisors (all disciplines) regarding Maintenance Qualification Card signatures. The memorandum discusses the PF book pre-dating issue and emphasizes the procedural requirements for allowing credit for past experience. This memorandum directs superintendents and supervisors of all maintenance disciplines to "thoroughly familiarize themselves with the procedures governing training and qualification of maintenance personnel."

EXHIBIT (16) is a copy of a March 27, 1984 MP&L/GG memorandum designated as IPC-84/2253 regarding PF sheets. The substance of this memorandum addresses the two methods by which PF book certifications may be completed. These methods are described as "Physical Observations" of an individual

performing the PF task and "Credit for Previous Training and Experience." The March 27, 1984 memorandum directs that all previously completed PF book tasks be re-evaluated to ensure compliance with one of the two described methods.

EXHIBIT (17) is a copy of Plant Quality Deficiency Report (PQDR) 101-84 dated March 15, 1984. This document, provided by HUTCHINSON, addresses the deficiency relating to the promotion of three (3) mechanical trainees to journeyman mechanics without their having completed "all requirements of Procedure 01-S-04-17 (PF book).

INVESTIGATOR'S NOTE: At the time this document was provided by HUTCHINSON the required disposition action had not been completed. According to HUTCHINSON the PF book tasks for each of these mechanic will be re-evaluated to ensure they are capable of performing all of the listed functions.

Interview of NRC Official

Richard C. LEWIS, Director, DPRP was contacted on May 9, 1984 for the purpose of reviewing and discussing regulatory documentation regarding the training requirements of non-licensed personnel and staff members at the GG facility. LEWIS, in a memorandum to the Director, Office of Investigations Field Office, Region II, advised that although applicable regulatory requirements for Mechanical Maintenance Technicians are found at 10 CFR 50, Appendix B, Criterion V and in Grand Gulf Technical Specifications, Chapter 6, these requirements address only the implementation of procedures for activities affecting quality. He said that the Practical Factor book, implemented through a GG plant procedure, is not a specific regulatory requirement.

LEWIS advised that, notwithstanding the fact that the Practical Factor book is not specifically required by any regulation or by a commitment to the NRC, it is expected that the licensee will maintain accurate and complete training records for use by the NRC to determine the qualifications and abilities of non-licensed personnel. He stated that inaccurate licensee records, whether or not they relate to a specific regulatory requirement, reflect adversely upon the integrity of the licensee and cast suspicion on all records maintained by the facility. The Region II Regional Administrator has been apprised of the contents of LEWIS' memorandum to OI and concurs with these remarks. A copy of LEWIS' memorandum to OI:RII is EXHIBIT (18) to this report.

Liaison with the Requestor

Throughout the course of the investigation, the Regional Administrator, Region II, NRC and/or members of his staff were apprised regarding the progress of the investigation. Additionally, the NRC Senior Resident Inspector at the GG facility was apprised of the investigation disclosures as they relate to the unresolved inspection issues. On April 30, 1984 the Regional Administrator was advised of all investigation disclosures and no additional investigation was requested.

STATUS OF INVESTIGATION

Status of Investigation

Inasmuch as all logical and significant investigative activities have been completed, the status of this investigation is CLOSED.

EXHIBITS

Exhibits

- (1) Region II, NRC Investigation request memorandum, dated 2/16/84
- (2) Copy of Maintenance Mechanic Practical Factors Sheet
- (3) Sworn Statement of (CONFIDENTIAL SOURCE),
dated 2/22/84
- (4) Results of Interview of (CONFIDENTIAL
SOURCE), dated 2/22/84
- (5) OI:RII memorandum to David M. VERRELLI, DPRP, Region II, NRC,
dated 2/24/84
- (6) David M. VERRELLI memorandum to OI:RII, dated 4/2/84
- (7) Results of Interview of Eddie Lee HENNINGTON, dated 3/26/84
- (8) Results of Interview of Charles Randy HUTCHINSON, dated 4/12/84
- (9) MP&L/GG memorandum (DAUGHTERY to CROSS) of NRC exit meeting,
dated 3/12/84
- (10) NRC Inspection Report Number 50-416/84-07, dated 3/27/84
- (11) MP&L/GG Organization Chart
- (12) Memorandum from W. BRADLEY addressed To Whom It May Concern,
dated 3/15/84
- (13) MP&L/GG memorandum (HANDLEY to File) regarding PF books, dated
3/16/84
- (14) Summary of Maintenance Qualification Card Issue, unsigned and
undated
- (15) MP&L/GG memorandum (HUTCHINSON to WALSH) regarding PF book
signatures, undated
- (16) MP&L/GG memorandum (WALSH to MOOMAW, STAER and WILSON) regarding
PF books, dated 3/27/84
- (17) Plant Quality Deficiency Report No. 101-84, dated 3/15/84
- (18) NRC Memorandum (LEWIS to OI:RII), dated 6/8/84