

CO Report No. 219/70-8  
January 13, 1971

DIVISION OF COMPLIANCE

INSPECTION OF MANAGEMENT SYSTEMS

JERSEY CENTRAL POWER AND LIGHT COMPANY  
(OYSTER CREEK)  
Docket No. 50-219

Inspection Conducted:  
October 13-16, 1970  
October 28-29, 1970  
November 5-6, 1970

## TABLE OF CONTENTS

	<u>Page</u>
A. Background.....	1
B. Objectives.....	1
C. Planning and Organization.....	1
D. Utilization of Manpower.....	2
E. Principal Persons Contacted.....	2
F. Conclusions.....	3
G. Inspection Results.....	3-24
1. Inspection at Site.....	3-15
a. Problem Identification In Review of Plant Operation and Testing.....	3
b. Review and Evaluation of Identified Problems Including Follow-up Action.....	5
c. Availability and Utilization of Technical Support Personnel.....	6
d. Performance of the Plant Operating Review Committee (PORC).....	6
e. Performance of the General Office Review Board (GORE) .. As Viewed from Site Inspection.....	8
f. Licensee's Review and Evaluation of Problems at Other Reactors, Including Follow-up Action.....	8
g. Present Status, Plans, and Criteria Related to Plant Staffing.....	9
h. Implementation of Operator Retraining Program.....	10
i. Review and Approval of Facility Changes in Accordance with AEC Regulations (10 CFR 50.59).....	10
j. Systems for Assuring Adequacy of Facility Procedures and for the Training of Personnel in these Procedures.....	11

TABLE OF CONTENTS (cont'd)

	<u>Page</u>
k. System for Assuring Implementation of Required Surveillance Test Program.....	12
l. Administrative Controls Relating to Plant Maintenance.....	13
m. Management Direction and Support - As Viewed from Site Inspection.....	13
n. Summary Meeting with Site Management.....	14
2. Inspection at Management Offices.....	15-21
a. Management Review of Plant Operation.....	15
b. Technical Support of Plant Operation by GPU.....	17
c. Performance of the GORB.....	19
d. Licensee's Review and Evaluation of Problems at Other Reactors, Including Follow-up Action.....	21
e. Management Direction and Support Relating to Plant Operation.....	21
3. Summary Meeting with Company President.....	22
d. Summary Listing of Major Weaknesses.....	25

A. Background

The Division of Compliance conducted a special inspection of the management systems employed by the Jersey Central Power and Light Company (JC) to obtain information on the adequacy of these systems to assure the safe operation of their Oyster Creek boiling water reactor facility. The inspection, which is in addition to the Division of Compliance's normal inspection program, was conducted because of recent problems experienced at operating reactors that can be attributed to lack of management attention. This licensee was selected for the first inspection of this type because of their past performance record and to assess the action taken by JC management in response to Compliance's enforcement letter dated September 9, 1970.

Similar inspections of this type are planned for other operating power reactor facilities.

B. Objectives

The primary objective of the inspection was to obtain information regarding the implementation and effectiveness of the management systems employed by JC for their Oyster Creek facility to assure compliance with their license and for auditing and evaluating the safety of operations.

A secondary objective was to determine the need for broadening the scope of the Compliance inspection program at other operating power reactor facilities.

C. Planning and Organization

The inspection team was composed of three senior Compliance inspectors:

Mr. R. T. Carlson, Senior Reactor Inspector, CO:I  
Mr. J. G. Keppler, Senior Reactor Inspection Specialist, CO:HQ  
Mr. F. J. Nolan, Senior Reactor Inspection Specialist, CO:HQ

The major features of the inspection were as follows:

1. The inspection keyed on management systems relating to nuclear safety.
2. The inspection recognized that some of the areas inspected had been reviewed, at least in part, during the course of the normal CO inspection program.

3. The inspection effort recognized that absolute standards do not exist at this time for evaluating management's performance.
4. The inspection findings were based on extensive interviews with cognizant representatives of JC and General Public Utilities (GPU), supplemented by a review of pertinent documentation. As a further check, specific examples were selected and "walked through" in order to test the effectiveness of these management systems. Interviews conducted within the operating organization encompassed all levels of responsibility from the equipment operator to the Company President.
5. The pertinent inspection findings have been discussed with licensee management representatives.

D. Utilization of Manpower

The inspection team spent 11 man-days on-site and five man-days at the management/engineering offices in Parsippany, New Jersey. Following the inspection, a summary meeting was held with Mr. R. F. Boviar, President, JC, at his office in Morristown, New Jersey. The inspection was conducted between October 13 and November 6, 1970.

E. Principal Persons Contacted

Jersey Central Power and Light Company

Mr. R. F. Boviar, President  
Mr. L. H. Sims, Vice President, Production Department  
Mr. I. R. Finrock, Jr., Manager, Nuclear Generating Stations  
Mr. T. J. McCluskey, Station Superintendent  
Mr. D. A. Ross, Technical Supervisor  
Mr. J. T. Carroll, Operations Supervisor  
Mr. E. Riggle, Maintenance Supervisor  
Mr. J. T. Sullivan, Assistant Technical Engineer  
Mr. D. E. Kaulback, Radiation Protection Supervisor  
Mr. R. Pelrine, Chemical Supervisor  
Mr. R. McKeon, Shift Foreman  
Mr. N. W. Cole, Shift Foreman

General Public Utilities Corporation

Mr. W. Verrochi, Vice President, Design and Construction Division  
Mr. W. H. Hirst, Manager of Projects and Chairman of GOEB  
Mr. B. G. Avers, Quality Assurance Manager

General Public Utilities Corporation (cont'd)

Mr. D. E. Hetrick, Manager, Plant Operations and Testing, and  
Vice Chairman of GORB  
Mr. J. Thorpe, Manager, Safety and Licensing

F. Conclusions

The results of this inspection of management systems indicate to the Division of Compliance that:

1. The management reorganization with JC, which took effect in April 1970, has resulted in active and knowledgeable participation in plant problems by licensee management.
2. Whereas increased management attention was being devoted at Oyster Creek to improve the safety of operations and the noncompliance record for this facility, additional efforts are needed by JC to stabilize and thereby strengthen the onsite operating organization and to improve observed weaknesses in the performance of the reactor safety committees.
3. The recognized need for a change in Compliance's inspection effort and increased emphasis in the areas of management systems as they relate to the safety of operations was demonstrated.

G. Inspection Results

The significant findings obtained from this inspection of management systems are given below. Organization charts depicting the Oyster Creek plant organization and the management organization as it functionally relates to the Oyster Creek facility are provided as enclosures 1 and 2 to this report.

1. Inspection at Site

a. Problem Identification in Review of Plant Operation and Testing

- (1) Interviews with Messrs. McCluskey, Carroll, Ross, and Riggle indicated there was close coordination of their activities in the day-to-day operation of the facility; however, the absence of documentation concerning the handling of specific problems traced by the inspection team was considered as being reflective of a high degree of informality.



General Public Utilities Corporation (cont'd)

Mr. D. E. Hetrick, Manager, Plant Operations and Testing, and  
Vice Chairman of GORB  
Mr. J. Thorpe, Manager, Safety and Licensing

F. Conclusions

The results of this inspection of management systems indicate to the Division of Compliance that:

1. The management reorganization with JC, which took effect in April 1970, has resulted in active and knowledgeable participation in plant problems by licensee management.
2. Whereas increased management attention was being devoted at Oyster Creek to improve the safety of operations and the noncompliance record for this facility, additional efforts are needed by JC to stabilize and thereby strengthen the onsite operating organization and to improve observed weaknesses in the performance of the reactor safety committees.
3. The recognized need for a change in Compliance's inspection effort and increased emphasis in the areas of management systems as they relate to the safety of operations was demonstrated.

G. Inspection Results

The significant findings obtained from this inspection of management systems are given below. Organization charts depicting the Oyster Creek plant organization and the management organization as it functionally relates to the Oyster Creek facility are provided as enclosures 1 and 2 to this report.

1. Inspection at Site

a. Problem Identification in Review of Plant Operation and Testing

- (1) Interviews with Messrs. McCluskey, Carroll, Ross, and Riggle indicated there was close coordination of their activities in the day-to-day operation of the facility; however, the absence of documentation concerning the handling of specific problems traced by the inspection team was considered as being reflective of a high degree of informality.

- (2) There was evidence to show that a working system existed in the day-to-day operations at Oyster Creek for the identification of problems in the Operations Supervisor's areas of responsibility. Extensive records were being maintained and reviewed. These records were noted to receive at least two layers of review. Although the system for identification of problems was found to be effective in areas tested, at least one important instance was observed where the communication of problems to the appropriate levels of management above the Operations Supervisor was inadequate (i.e., a problem with high oxygen content in the drywell).
- (3) Similar observations were made concerning problem identification with respect to the Technical Supervisor's areas of responsibility (core physics, coolant chemistry, radiological safety); however, daily logs were not routinely reviewed by the Technical Supervisor. First line supervisors were held responsible for informing the Technical Supervisor of detected problems. One noteworthy and favorable observation was that the Technical Supervisor was personally maintaining and recording data on several safety related parameters to monitor for trends and long term effects.
- (4) A discernible lack of administrative organization was observed in the Maintenance Supervisor's areas of responsibility. The inspection team found no evidence of a working system relating to the review of maintenance activities and equipment performance, thereby raising questions as to the timely identification of problems in these areas.
- (5) Mr. McCluskey, Station Superintendent, was in Washington, D.C. on company business for the majority of the site inspection. Based on interviews with the senior staff, the inspectors concluded that the Station Superintendent maintained surveillance of the day-to-day operations primarily by means of verbal briefings from the senior staff. He, in turn, is responsible for the further review of these problems and communications of same, as appropriate, to higher management.



b. Review and Evaluation of Identified Problems Including Follow-up Action

- (1) Depending on the nature of the problem identified, the inspectors found that problems pass through one or more stages of informal review enroute to receiving possible formal consideration. The licensee acknowledged that filtering action was inherent in this process.
- (2) The determination of the need for outside technical assistance in the resolution of identified problems is made by the Station Superintendent and/or members of his senior staff. Inspection findings noted that the utilization of outside assistance may or may not be handled through written correspondence.
- (3) The review and evaluation of problems brought to the attention of the senior staff for consideration are not documented. Mr. McCluskey decides whether the problem warrants formal consideration by the PORC. Our inspection findings indicated a potential exists for matters to receive only informal consideration in instances where formal consideration by the PORC, per se, may be in order. The inspectors noted several instances where, in their judgment, this was the case (e.g., the decision to continue operation without the TIP system; problems encountered with the drywell oxygen analyzer).
- (4) The more significant problems were found to have received review and evaluation by the PORC, the GORB, and the AEC, as appropriate, in accordance with the requirements of the Technical Specifications.
- (5) On those problems where follow-up action was recommended, the following was noted:
  - (a) For those problems that were not documented, verification of follow-up action also was not documented.
  - (b) The follow-up action on those matters reviewed formally by the PORC has generally been verified informally; however, steps have recently been initiated by the Station Superintendent to formalize this verification process.

- (c) The follow-up action on matters reviewed formally by the GORB, although more formal than that implied in G.l.b.(5)(b) above, has not been consistent. Here, also, steps have recently been taken by the GORB to tighten up in this area.

c. Availability and Utilization of Technical Support Personnel

- (1) Interviews with the Station Superintendent and his senior staff indicated that authority has been delegated to these people by upper management for the unlimited utilization of consultants in support of plant operation.
- (2) It was noted that there continues to be considerable reliance placed upon GE primarily outstanding contractual matters; however, consultants have been and are being utilized in a number of areas related to the safety of plant operation.
- (3) Based on discussions with senior plant personnel, it was concluded that the role of GPU in the technical support of the Oyster Creek facility is limited. The indications were that the major problem is that, with few exceptions, the people within the GPU support group lack familiarity with the plant and are therefore not in a position to contribute effectively. To the extent this subject could be reviewed at the site, the observations made in this area were in contrast to the statements made in Amendment 52, page 16, to the Facility Description and Safety Analysis Report. This reference states in part that:

"This group gives direct technical assistance and guidance to the operating staffs once the stations go into operation."

d. Performance of the PORC

- (1) The membership of the PORC is as follows:

Mr. T. J. McCluskey, Station Superintendent (Chairman)  
Mr. D. A. Ross, Technical Supervisor  
Mr. J. Carroll, Operations Supervisor  
Mr. E. Riggle, Maintenance Supervisor  
Mr. D. E. Hetrick, Manager of Plant Operations and  
Testing, GPU, (GORB Member)  
Mr. D. Rees, Oyster Creek Project Manager, GPU (GORB  
Member)

- (2) Facility records indicate that there had been 66 PORC meetings as of the time of the inspection. Twenty-two of the meetings were held during calendar year 1970.
- (3) The inspection findings indicate that the more significant problems have received formal review by the PORC; however, a check by the inspectors of some 10 items designated as requiring follow-up action indicated that there was no formal system to assure follow-up of these items. Although the majority of the items were found to have been given proper attention, two of them, both of which required action on the part of the Maintenance Supervisor, had not been completed satisfactorily. As previously stated, action has since been taken by the PORC to formalize verification of matters identified for follow-up.
- (4) One responsibility of the PORC, as defined in the Technical Specifications, is to "review plant operations to detect potential safety hazards." This requirement is quite general and while the inspections found the PORC to be reviewing the more significant problems, there have been some instances noted where, in the judgment of the inspectors, these matters did not receive formal review by the PORC (e.g., operation of the reactor without the TIP system; test failures with the diesel generator and 125 V d-c batteries). This matter had been pursued previously by CO with the licensee with some improvements noted.
- (5) Sixteen PORC meetings have been held between the time of the previous site inspection and this special inspection. One or both GORB members were in attendance at only four of the 16 meetings (at a fifth meeting, one member was contacted by telephone). It should be noted that poor attendance at the PORC meetings by the GORB representatives has been a recurring problem.
- (6) A review of the PORC meeting minutes showed them to be consistently lacking in sufficient detail to permit the GORB to determine whether matters reviewed by the PORC involved unreviewed safety questions. In addition, the inspectors had some reservations as to whether all matters reviewed by the PORC were identified in the meeting minutes.

- (7) One area was identified wherein it was not clear that the licensee was meeting fully the intent of the Technical Specifications, i.e., with regard to the responsibility of the PORC to investigate all reported instances of violations of the Technical Specifications. Review in this area was not completed during this inspection. This matter has been identified for follow-up by the assigned inspector.

g. Performance of the GORE - as Viewed from Site Inspection

- (1) It was recognized at the outset of this inspection that the primary review of the GORB performance would be made at the management offices. However, one important observation made at the site is a concern that the GORB may not be getting the complete picture on the safety of operations for their consideration due to the incompleteness of the PORC documentation. This concern was amplified by the poor attendance record of the assigned GORB members at the PORC meetings.

h. Licensee's Review and Evaluation of Problems at Other Reactors, Including Follow-up Action

- (1) There was no effective system evident for incorporating lessons learned from experiences at other reactor facilities into the operations at Oyster Creek. In this regard questions were asked of a number of personnel at all levels within the site organization regarding the recent occurrences at Dresden 2, Humboldt Bay and LACBWR.\* All personnel interviewed were aware of the Dresden 2 occurrence. This particular incident did receive special attention by management with respect to its applicability to Oyster Creek. In contrast, not all of these people were cognizant of the experience at Humboldt Bay and no one was aware of the occurrence at LACBWR. Furthermore, several recent failures experienced with engineered safety features at Dresden 2 were generally unknown.

\*Dresden 2 - Depressurization Incident, June 5, 1970  
Humboldt Bay - Loss of Offsite Power, July 17, 1970  
LACBWR - Depressurization Incident, May 15, 1970

- (2) Discussions with members of the senior staff indicated that a number of mechanisms are utilized to learn of pertinent experiences at other facilities. These include: Mr. Rees, and his various channels of communication with other facilities and attendance at pertinent professional meetings (IEEE, EEI, etc.); Atomic Energy Clearing House publications; monthly reports that are exchanged with some of the other utilities; matters brought to JC's attention through GE or JC's consultants; information provided by Compliance; and Reactor Operating Experience reports (Mr. McCluskey stated that, in his view, the latter would be of greater benefit if they were issued more timely). While a number of sources of information have been utilized, the efforts being expended in this regard were considered by the inspectors to be ineffective for the most part (based on item G.1.f.(1) above) in that they were uncoordinated and with no organized approach with respect to translation of follow-up actions applicable to the Oyster Creek operation.

g. Present Status, Plans and Criteria Related to Plant Staffing

- (1) Discussions with the Station Superintendent and his senior staff indicated that there has been a change in the thinking of upper management with regard to their understanding of the staffing needs peculiar to a nuclear power facility vs a conventional power plant. In the judgment of the inspectors, this change in thinking has been motivated at least in part by the discussions held at the March 25, 1970 meeting between JC and the AEC.
- (2) In regard to item (1), changes made to date include the following:
- (a) The addition of 2 associate engineers and 1 staff engineer to the Technical Supervisor's staff. However, it is noted that the position of Technical Engineer is still vacant.
  - (b) The addition of 1 staff engineer to the Operations Supervisor's staff for the purpose of overseeing the overall surveillance testing program.
  - (c) The addition of two Assistant Technicians to serve both the Radiation Protection Supervisor and the



Chemical Supervisor. Also one Instrument and Control Technician has been added.

- (d) An increase in the numbers of people in the operating organization to allow reorganizing from 4 to 5 shift coverage following training and operator licensing as appropriate. This move is expected to be completed prior to the end of 1970.
- (3) The discussions also revealed plans to further augment the plant staff. This, at least in part, is to serve the future staffing needs at Forked River Unit 1. The licensee emphasized the intent to avoid the problems experienced in the staffing of Oyster Creek.
- (4) Hertofores, the actual assignment of responsibilities to the senior members of the plant staff did not coincide well with the job descriptions provided in the license application. This has been compounded by the number of personnel changes made in these positions since the issuance of the operating license. The inspectors noted that improvement has been made in this regard, i.e., the individual staff job descriptions have become more definitive; however, further improvement was found to be in order.

h. Implementation of Operator Retraining Program

- (1) A formalized personnel competence and retraining program had not been implemented at the time of the inspection.\* A retraining program plan had been drafted and was under review by licensee management. Implementation of the retraining program was scheduled to start before the end of the year, concurrent with the expansion of the operating staff to five shifts. The assigned reactor inspector will follow-up on this matter.

i. Review and Approval of Facility Changes in Accordance with AEC Regulations (10 CFR 50.59)

- (1) Relatively few facility modifications had been made to date which involved a change to the facility from that

\*The licensee's letter to DRL on this subject, dated April 3, 1970, estimated this program will begin in 1970.

described in the Final Safety Analysis Report (FSAR). Most of the changes that had been made were initiated by GE.

- (2) It was found that substantive changes to plant systems were being reviewed by the GORB in accordance with Technical Specification requirements.
- (3) Although an improved awareness had been exhibited by the licensee to satisfy the requirements of 10 CFR 50.59, the documentation relating to the safety evaluation of these changes, in some cases, was found by the inspectors to be marginally acceptable.

j. Systems for Assuring the Adequacy of Facility Procedures and for the Training of Personnel in these Procedures

- (1) The inspectors found that the licensee has a system which, when fully implemented, should assure the adequacy of the facility procedures on a continuing basis. The system includes the assignment of responsibilities to individual senior members of the plant staff. The shortcomings noted in this program at the time of the inspection were as follows:
  - (a) Each senior staff member assigns priority to his responsibilities in this area depending on how well he is "on top of his job," e.g., essentially no action has been taken with regard to procedures assigned the Maintenance Supervisor.
  - (b) The PORC has been reviewing and approving procedures as required; however, they were currently backlogged with a considerable number of proposed procedure changes that had been processed to the point requiring their review and approval.
  - (c) A time interval for periodic review of procedures had not been established.
  - (d) Not all procedures have been tested, including many in the maintenance area. Many of these procedures will be tested during the initial refueling outage.

- (2) The requalification of personnel relating to approved changes in facility procedures consists primarily in the routing of the procedure to the pertinent personnel for their review. A special form has been provided for this purpose which the individual initials to signify having read the revised procedure. This system does not assure complete understanding of the change or its basis, nor does it assure that the individual has in fact even read the procedure. The inspectors acknowledged that there are inherent difficulties in the periodic assembling of operating personnel from all four shifts for group discussions on recent procedure revisions; however, the need to develop a more effective means of requalifying personnel was apparent.

k. System for Assuring Implementation of Required Surveillance Test Program

- (1) At the start of the inspection, Mr. McCluskey reviewed with the inspectors the corrective actions that had been taken by JC to improve their performance record at Oyster Creek. Mr. McCluskey noted at this time that the one area where corrective measures had not been implemented fully was the area of surveillance testing. The CO inspection confirmed the presence of continuing deficiencies in this area (discussed in CO Report No. 219/70-7).
- (2) The responsibility for assuring adequate implementation of the surveillance testing program had been divided between operations, engineering and maintenance. Mr. McCluskey stated that, in his view, this divided responsibility had contributed significantly to the previously identified inadequacies in their program<sup>1/</sup> and that responsibility for surveillance testing was to be delegated solely to operations in November 1970. Furthermore, Mr. McCluskey stated that a staff engineer position had been created within the operations group, and that this individual was to be assigned full time in the area of surveillance testing and would have the responsibility for carrying out the required program.

1/ Several items of noncompliance with Technical Specifications requirements in this area had been detected during previous CO inspections.

- (3) Surveillance test results are reviewed at the Instrument Foreman and Shift Foreman level, and are not routinely reviewed by the senior staff. Furthermore, it was noted that the system for maintaining and reviewing surveillance test results does not permit easy evaluation of changes or trends.

1. Administrative Controls Relating to Plant Maintenance

- (1) The principal means employed by the licensee to control plant maintenance work is a job order permit. These permits may be initiated by almost anyone within the plant organization but all job orders are processed through the operating organization and require formal approval by the Operations Supervisor. It was noted that the permit requires a determination of whether the work will affect Limiting Conditions for Operation.
- (2) The inspectors' review indicated that all important work was being handled by this mechanism. However, it was noted that a potential existed for some work of a minor nature to be performed without the use of a work permit.
- (3) An audit of the job order file and other maintenance records by the inspectors revealed the following weaknesses:
  - (a) Not all completed job orders had been signed by all responsible individuals as required.
  - (b) The system for maintaining and reviewing maintenance test records fails to allow a determination of long-term trends regarding equipment performance.

m. Management Direction and Support - as Viewed from Site Inspection

- (1) In response to a direct question, the inspectors were informed by Mr. McCluskey that management directives relating to the operation of Oyster Creek are primarily verbal.
- (2) Mr. McCluskey noted that he is in daily communication with Mr. Finrock and others on matters relating to the operation of the plant.



- (3) When questioned regarding what specific direction he received as a result of the March 25, 1970 meeting between JC and the AEC, Mr. McCluskey stated that subsequently Mr. Bovier held a meeting of pertinent management personnel at which Mr. McCluskey was present. Mr. McCluskey stated that at this meeting he was instructed to (a) improve the company image with the AEC and to (b) add depth and operating experience to the plant staff.

n. Summary Meeting with Site Management

A summary meeting was held by Messrs. Carlson and Keppler with Messrs. McCluskey, Ross, Carroll and Riggle at the conclusion of the site inspection on October 16, 1970. The objectives of the inspection including the related planning and organization, as discussed in Sections B and C of this report, were reiterated.

The major findings and observations reported in Sections G.1.a through m. were reviewed. In addition, the following general observations were made by the inspectors:

- (1) The plant had been in operation for 18 months; however, JC was still organizing their staff and systems which should have been fully in effect prior to plant startup. The surveillance testing program and maintenance program were cited as specific examples of the latter. Mr. McCluskey acknowledged this but pointed out that the problem was not a result of inadequate efforts by JC to augment the staff or to upgrade their programs at Oyster Creek. He stated that significant efforts were being expended by JC management to complete the staff at the facility.
- (2) Although evidence was noted of positive steps taken by JC to improve their performance at Oyster Creek, the inspectors stated that they questioned whether what JC has done is sufficiently adequate and timely when considered in light of recent experiences at operating BWR facilities. Mr. McCluskey stated that he heard the comments but had no specific response. He indicated that the comments made by the inspectors would be taken under consideration.



- (3) Contributing to the concerns stated above is a relatively high degree of informality or looseness sensed in the operating organization. Mr. McCluskey stated that JC considered a certain amount of informality desirable and that they were opposed to operation by committee. He added that he did not feel the degree of informality was excessive; however, in view of the inspectors' comments and certain examples cited in this regard, Mr. McCluskey indicated that further consideration would be given to this concern.

## 2. Inspection at Management Offices

### a. Management Review of Plant Operation

- (1) On March 25, 1970, a meeting was held by senior representatives of the AEC with the President of JC to review regulatory's concerns regarding the conduct of operations at Oyster Creek. Subsequent to this meeting, several important organizational changes were effected. These are as follows:
  - (a) Mr. J. Logan, Vice President, chose the option of early retirement.
  - (b) On April 28, 1970, Mr. R. H. Sims, Vice President, assumed the responsibility for operation of the Company's Production Department. In this position Mr. Sims has overall responsibility for JC's operating power plants.
  - (c) Mr. G. H. Ritter, Vice President and former Director of the GPU Nuclear Power Activities Group, has been assigned new responsibilities unrelated to the Company's operating nuclear activities.
  - (d) Previously, Mr. G. Kelcec, as Manager of Generating Stations, had responsibility for both nuclear and conventional plants. On April 28, 1970, Mr. I. R. Finfrock was named Manager of Nuclear Generating Stations, and Mr. Kelcec was named Manager of Conventional Generating Stations.
  - (e) A number of additions to the plant staff were made. (See Section F.1.g).

- (2) Mr. Finfrock is intended to be the focal point within JC management for handling important matters related to Oyster Creek. He told the inspectors that when Mr. Bovier appointed him to this position he was verbally instructed to give priority to strengthening the Oyster Creek operating and support function organizations and to improve JC's image with the AEC.
- (3) Discussions with Mr. Finfrock indicated that he is in daily telephone communications with Mr. McCluskey concerning the status of the plant and current problems, and that he has been spending one day each week at the plant. In addition, it was learned that he has routine documented communications from the site that include a daily plant operations summary, a monthly operations statistical report, abnormal occurrence reports, minutes of telecons with the AEC, and PORC meeting minutes. Furthermore, Mr. Finfrock has instructed plant management to inform him of any problem related to the facility license or any problem affecting plant capability. Mr. Finfrock estimated that presently over 90 percent of his time was being applied in support of the Oyster Creek facility and that within the next year he expected to add an assistant and four staff engineers. Based on discussions of several actual and potential problems at Oyster Creek, the inspectors concluded that Mr. Finfrock had established effective administrative controls for maintaining close surveillance of the operating program. Notwithstanding, the inspectors noted one instance where Mr. Finfrock was not aware of a significant safety related problem; i.e., one of several occasions where high oxygen concentrations within the drywell were experienced during operation.
- (4) Mr. Sims does not have a nuclear background or previous nuclear experience; however, he appeared to have an active interest in the Oyster Creek facility and is kept informed of significant developments daily through Mr. Finfrock. In addition, Mr. Sims stated that he visits the site on a monthly basis to get first-hand knowledge with respect to reactor operations and significant problems being encountered.

- (5) Mr. Sims stated that Mr. Doviak is keenly interested in significant developments at Oyster Creek and that he had been requested, following the March 25 meeting with the AEC, to be kept informed on important matters.
- (6) Discussions with Messrs. Sims and Finfrock and a review of specific documentation revealed that memoranda are prepared by plant personnel and distributed to management summarizing pertinent information relating to all Compliance inspections and telephone inquiries. In response to questions concerning what feedback JC management had received relating to the site portion of this inspection, Mr. Finfrock stated that two memoranda had been written summarizing pertinent questions and observations made by the inspectors and that these were distributed to all senior management representatives including Mr. Kuhns, President of GPU, at his request. The inspectors reviewed these memoranda with Mr. Finfrock and found them to be comprehensive and reasonably accurate.

b. Technical Support of Plant Operation by GPU

- (1) Based on information provided in Amendment 52 to the EDSAR plus the impression communicated to regulatory representatives during various pre-licensing meetings (attended by the inspectors) the inspectors were of the view that GPU would be participating "heavily" in support of the day-to-day operations at Oyster Creek.
- (2) In view of the above, the inspectors discussed with Mr. Finfrock the image they had received from senior site personnel to the effect that the role that GPU was playing in support of Oyster Creek was limited. Mr. Finfrock expressed some surprise in this regard and indicated that GPU was and had been involved in a number of important aspects of plant operation (e.g., fuel management, control rod drive modification, evaluation of isolation condenser trip point setting). Although Mr. Finfrock's remarks indicated that GPU was involved to a greater extent than the inspectors had thought, based on the site inspection, this involvement was still short of what the inspectors had expected to see.

- (3) Interviews with Messrs. Verrochi and Finfrock indicated that the functions and personnel of the former GPU Nuclear Power Activities Group have been absorbed within the newly-formed GPU Service Company. This technical support function is assigned within the Design and Construction Division under Mr. Verrochi. Mr. Verrochi conveyed to the inspectors the impression that only a small portion of the Division's effort had been placed on technical support to date and most of this had been in the areas of design and construction; however, he added that personnel were available for technical support of the Oyster Creek facility, when needed, and that he had instructed his Division managers to provide assistance to Mr. Finfrock in any way they could. Mr. Verrochi also pointed out that, in recognition of GPU's current commitments in the nuclear field, an operations planning unit had been established within his Division. This unit, which is headed by Mr. Hetrick, will also have responsibility within GPU for following reactor operations at Oyster Creek on a routine basis.
- (4) The inspectors met with Mr. Avers to discuss the role that he, as Manager of Quality Assurance, has with respect to maintenance or planned modifications at Oyster Creek including specifically the applicability of the AEC's 18 Quality Assurance Criteria (10 CFR 50, Appendix B). Mr. Avers stated that his group would be involved in the in-service inspection program scheduled to be performed during the first refueling outage, but that he had no responsibility for quality assurance as it pertains to plant modifications or routine maintenance at Oyster Creek. The inspectors noted that the Quality Assurance group was not involved in the proposed modifications to the scram reset circuitry. In response to questions from the inspectors, Mr. Avers also stated that his group has no responsibility for updating plant system drawings. This indicated lack of automatic involvement at Oyster Creek on the part of the Quality Assurance group was discussed with MR. Finfrock. Mr. Finfrock appeared surprised and said that he clearly understood that the Quality Assurance group would be actively involved at Oyster Creek. He stated that he would discuss the matter with Mr. Avers to clear any misunderstandings.



c. Performance of the GORB

- (1) The membership of the GORB is as follows:

Mr. W. H. Hirst, Manager of Projects, GPU (Chairman)  
Mr. D. E. Hetrick, Manager of Plant Operations and  
Testing, GPU (Vice-Chairman)  
Dr. T. M. Snyder, General Electric Company  
Dr. W. A. Sutherland, General Electric Company  
Mr. W. W. Lowe, Pickard, Lowe and Associates  
Mr. D. R. Rees, Project Manager - Oyster Creek, GPU  
Mr. I. R. Finrock, Manager, Nuclear Generating  
Stations, JC (non-voting member)  
Mr. J. Thorpe, Safety and Licensing, GPU

- (2) Facility records indicate that there had been 19 GORB meetings as of the time of the inspection, 16 of which were held subsequent to the issuance of the operating license on April 9, 1969. All members have had a good attendance record at meetings. A review of the more recent meeting minutes by the inspectors indicated that matters scheduled for review at meetings were receiving adequate attention by the GORB.
- (3) Mr. Hirst told the inspectors that although Abnormal Occurrence Reports and Scram Reports are supplied to him, not all are routinely distributed to all GORB members; however, he indicated that he saw to it that the important ones were forwarded to each member.
- (4) In view of the lack of detail provided in the PORC meeting minutes and the poor attendance record of the two assigned GORB members at the PORC meetings, the inspectors inquired as to other means being utilized by the GORB to learn of important events relating to Oyster Creek. Mr. Finrock stated that he has daily communications with Messrs. Hetrick, Thorpe, and Rees concerning plant operations. Also, Mr. Hetrick indicated that he has frequent telephone contacts with site personnel to supplement his knowledge. It was learned that this supplementary information is not provided routinely to the "outside" members of the GORB. The inspectors questioned that this approach would appear to constitute an informal review of safety related matters by a partial committee as compared to the intended more formal review by the full committee.



Messrs Finfrock and Ketrick acknowledged that a certain amount of filtering is inherent in this approach but that they felt that all important matters were being brought to the attention of the full committee.

- (5) The initial review of GORB related correspondence revealed some missing meeting minutes. Furthermore, there appeared to be a lack of written reports to the Company President of reported instances of violations of the Technical Specifications, as required by the Technical Specifications. During this initial review, Mr. Hirst was out of town. The inspectors met with Mr. Hirst on November 6 and asked to see the GORB files. Mr. Hirst, after considerable effort, was unable to produce the desired documents. This matter has been identified for follow-up by the assigned inspector.
- (6) The inspectors interviewed Mr. Hirst for approximately one hour. It wasn't long into this interview before it became readily apparent to the inspectors that Mr. Hirst's involvement, as Chairman of GORB, was superficial. Furthermore, Mr. Hirst's understanding of his role as Chairman of GORB and the role of GORB, per se, appeared to fall short of that intended by the Technical Specifications. These matters have also been identified for follow-up by the assigned inspector.
- (7) The quarterly audits of plant operations required by the Technical Specifications have not been performed by GORB, but rather have been performed by the GPU Quality Assurance group. The GORB members select the areas to be audited and at least one of the GORB members is assigned to the audit team. The GORB also has requested recently the GPU - QA audit group to verify completion of matters identified by the GORB for follow-up, in an attempt to formalize verification of these matters. An internal audit report is written following each audit which provides pertinent findings and recommendations for corrective actions required, a record of action taken, and final signoff by the QA engineer. A review of the audit records by the inspectors indicated that the scope of the audits was quite narrow (e.g., one audit covered a review of surveillance records for Limiting Safety System Setpoints, another covered logged operating data pertaining to Limiting Conditions of Operation) and that the audits generally covered one day.

d. Licensee's Review and Evaluation of Problems at Other Reactors, Including Follow-up Action

- (1) In view of the information learned at the site and reported in paragraph 6.1.g. of this report, the inspectors questioned management representatives whether any organized approach had been developed on their part for learning of problems at other facilities and reviewing their applicability to Oyster Creek. Messrs. Finrock and Hetrick indicated that they and Mr. Rees have all tried to provide assistance in this regard but acknowledged that there was no focal point for assuring the adequate attention and related action regarding problems. In subsequent discussions Messrs. Sims and Finrock stated that JC would initiate action to utilize more fully the mechanisms available to them in this regard.

e. Management Direction and Support Relating to Plant Operations

- (1) It was apparent to the inspectors that upper management became more involved with respect to activities at Oyster Creek following the March 25, 1970, meeting between the AEC and Mr. Bovier. The evidence of this involvement is reflected in the following:
  - (a) The already accomplished augmentation of the plant staff and the further changes (Paragraph G.1.g.).
  - (b) Creation of the position of Manager, Nuclear Generating Stations and filling the position with an individual (Mr. Finrock) who had considerable knowledge of Oyster Creek (Paragraph G.2.a.).
  - (c) Assigning an individual (Mr. Hetrick) with considerable knowledge of Oyster Creek as Vice Chairman of GORB (Paragraph G.2.c.).
  - (d) Daily briefings on Oyster Creek at the Vice President level (Paragraph G.2.a.).
  - (e) Notification of the Company President of important matters relating to operations at Oyster Creek (Paragraph G.2.a.).

3. Summary Meeting with Company President

A summary meeting was held by Messrs. Carlson and Keppler with Mr. Bovier at the conclusion of the inspection on November 6, 1970. Messrs. Sims and Finrock also participated in the meeting. The objectives of the inspection, including the related planning and organization, as discussed in Sections B and C of this report, were reiterated. The following additional introductory remarks were made by the inspectors:

- a. Oyster Creek had not been singled out for this inspection and similar audits were being planned of other licensees.
- b. This meeting was being held with Mr. Bovier because the inspectors had noted his personal involvement with Oyster Creek and thought that he would be interested in the inspectors findings.
- c. The areas of inspection were subjective with no standard of comparison. In this regard, the assessment was said to be incomplete; i.e., it would be continuing as it encompassed other licensees.
- d. The inspectors commented on Compliance's favorable reaction to JC's response to the enforcement letter of September 9, 1970. Mr. Bovier expressed pleasure at hearing this and stated that JC had made a particular effort to be responsive to the concerns of Compliance.

The inspectors then proceeded to discuss the significant inspection observations in a chronological sequence. These are as follows:

- a. The inspectors told Mr. Bovier that they were aware of the existence and content of minutes that had been prepared by Messrs. McCluskey and Ross following the site inspection and which had been distributed to management, including himself. The inspectors acknowledged that these minutes were comprehensive and reasonably accurate and, therefore, they would defer further discussions on the site-related findings unless Mr. Bovier desired further clarification. Mr. Bovier stated he felt that he had a clear understanding of Compliance's findings and observations from the site and that he did not require additional clarification of these matters.

b. With respect to the inspection at JC's management offices, the observations made were presented in summary form as follows:

- (1) The inspectors stated they had a favorable reaction regarding the current organization, particularly the performance of those responsible for the operations functions within management. The inspectors added that this, in their judgement, represented a measurable improvement over previous observations made in connection with Oyster Creek; however, it was pointed out that the changes made were relatively recent and that observations over a longer period of time would be necessary to determine the true effectiveness of these changes.

Mr. Bovier stated that he believed Jersey Central was now on top of their responsibilities and that they had no intentions of relaxing management's involvement at Oyster Creek. He indicated that he would continue to look forward to Compliance's comments on their performance with the passing of time.

- (2) The observed contrast between the technical support actually being provided by GPU and the role that the inspectors understood would be served by GPU was identified.

The inspectors pointed out that they did not know how to handle this matter at this time.

Mr. Bovier offered no position regarding the observations made by the inspectors.

- (3) The inspectors discussed their views on the performance of the GORB. The inspectors pointed out that the off-site safety committee was considered by the AEC to be an important management tool and, based on observations made during the inspection, that JC management was not deriving fully all the benefits that they could from the GORB. Specific concerns discussed included the following:

- (a) The shallowness of the audits - the inspectors emphasized their personal experiences in this regard.



- (b) The observed shortcomings with respect to the channels of communication available to the GORB; i.e., PORC meeting minutes; GORB member participation in PORC meetings; the potential for the GORB to be an "in-house" committee.
- (c) The lack of objective evidence regarding the required formal communications between the GORB chairman and Mr. Bovier.

The inspectors informed Mr. Bovier that follow-up inspections of the GORB performance would be made by the assigned inspector.

Mr. Bovier stated that prompt action would be taken to improve the PORC minutes and the participation by GORB members at scheduled PORC meetings. He also stated that steps would be taken to strengthen the audits performed at Oyster Creek. While Mr. Bovier made no specific commitments concerning the inspectors negative observations relating to the overall performance of the GORB, he indicated his intentions to look into the operations of the GORB.

- (4) The inspectors noted that many problems were being experienced at operating power reactors that could have applicability to Oyster Creek. In this regard, the inspectors summarized their negative findings, both at the site and within management, and stressed the importance of having an organized approach for evaluating and following-up problems at other facilities. Mr. Bovier indicated that JC would reexamine their past practices and take the necessary steps to assure that lessons learned at other reactors are properly incorporated at Oyster Creek.
- c. The inspectors stated that although, based on this inspection, they had concluded that JC had initiated positive corrective measures to improve their performance at Oyster Creek and that while measurable progress had been realized, continued close attention by management appeared warranted.

Mr. Bovier thanked the inspectors for their frank appraisal and stated that efforts would not be relaxed in their endeavor to improve their performance.



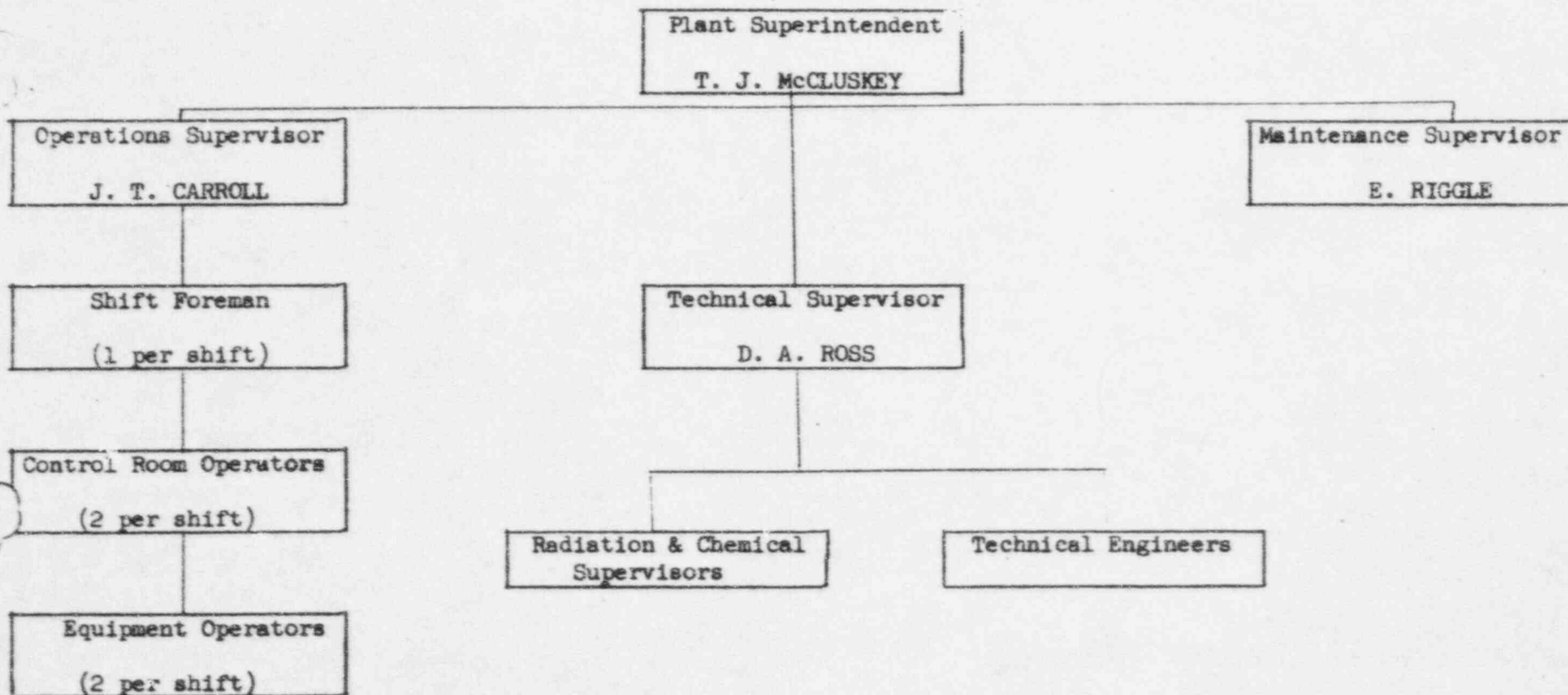
H. Summary Listing of Major Weaknesses

1. Weaknesses existed in the administration of the maintenance group operation (Paragraphs G.1.a, G.1.j, and G.1.l)
2. The role of the GPU support group at Oyster Creek was limited (Paragraphs G.1.c and G.2.b).
3. Weaknesses existed in the performance of the PORC (Paragraph G.1.d).
4. Weaknesses existed in the performance of the GORB (including specifically the audit function)(Paragraphs G.1.e. and G.2.c).
5. No effective system existed for incorporating lessons learned from experiences at other reactors (Paragraphs G.1.f. and G.2.d).
6. Corrective measures in the area of surveillance testing had still not been fully implemented (Paragraph G.1.k.).

Enclosures:

1. Oyster Creek Plant Organization
2. Oyster Creek Management Organization

OYSTER CREEK PLANT ORGANIZATION



OYSTER CREEK MANAGEMENT ORGANIZATION

