



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

September 26, 1983

MEMORANDUM FOR: Gen W. Roy, Assistant to the Regional Administrator
THRU: J. J. Harrison, Chief, Midland Section, O.S.C.
FROM: B. L. Burgess, Resident Inspector, Midland Site
SUBJECT: FIRE PROTECTION SYSTEM ALLEGATIONS

On September 22, 1983, at approximately 11:00AM, I was approached at the Resident Inspector Office by a Bechtel employee who stated that he was a field engineer responsible for fire detection systems. He indicated that he would like this conversation to be "off the record". He stated that he had worked as an inspector in the fire protection area for a number of years and could identify NFPA code violations without referencing the code and that he had reviewed the Midland Plant fire detection system and found the design to be inadequate. The allegor stated that he had expressed his concerns to his supervisor and to the responsible CPCo engineer for fire protection systems. He indicated that a meeting had been scheduled for next week and that approximately six individuals from Bechtel, CPCo, and the insurer would be present. He stated that he needed to know what legal authority the NRC had in relation to fire protection in order to be prepared at the meeting. The allegor stated that he trusted no one, including the NRC, and that he would check out personally, everything told to him. He felt his job was on the line, and that he was placing himself in additional jeopardy by coming to discuss his concerns with the NRC.

I explained to the allegor the NRC responsibility for fire protection was contained in 10 CFR 50, Appendix R and FSAR commitments, and that those documents were the reference material, among others, that we used to perform our inspections.

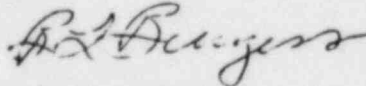
The allegor then requested a Xerox copy of 10 CFR 50, Appendix R. I told him that I would not Xerox a copy for him because of potential copyright laws but would provide him with a paperback copy if needed. I asked that he first request a copy from his management or CPCo, and that if he could not obtain one from them, I would provide him with a copy. The allegor did not agree about copyright laws, and indicated that he thought I was being unresponsive to his request for a Xerox copy. I again explained that I would indeed provide him with a copy if he could not obtain one from other sources. At this point, the allegor became extremely agitated and again stated that he was putting his job on the line, and that copyright laws should not prevent me from providing him with a Xerox copy. At this time, I offered my paperback copy to the allegor, which he refused.

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September 26, 1983

The allegor appeared to be very nervous and frightened at the start of our conversation. I attempted to try to calm the individual many times without success. My statement concerning copyright laws was a result of my recollection of a PAT inspection in Region I or II in which a NRC employee was Xerox copying ASME and other documents with copyright statements. I was unsure of a copyright associated with the Code of Federal Regulations, therefore, I thought it best not to copy, but to instead provide the allegor with a copy, if he could not receive a copy through other means.



B. L. Burgess
Resident Inspector
Midland Site

cc: R. Gardner
R. Cook

Sardner

October 19, 1983

MEMORANDUM FOR: Jane A. Axelrad, Director, Enforcement Staff, IE
FROM: W. H. Schultz, Enforcement Coordinator, Region III
SUBJECT: CONSUMERS POWER COMPANY - MIDLAND PROPOSED CIVIL PENALTY

The enclosed documents proposing civil penalty action under the NRC Enforcement Policy are forwarded for your review and concurrence.

On July 28, 1982, an NRC inspector determined that the licensee had excavated soil material from below the deep "Q" duct bank and initiated fireline relocation activities in "Q" soils without prior NRC authorization. Further, the excavation of soil material below the deep "Q" duct bank was contrary to previous directives of the NRC staff which instructed the licensee that such excavation was not authorized. (OI Investigation Report No. 3-82-061) These actions violated paragraph 2.G. of the Midland Construction Permits, as amended on May 26, 1982.

Based on the Enforcement Policy, we have classified this violation as a Severity Level III and have developed the enforcement package proposing a \$100,000 civil penalty. To emphasize the severity of the violation and the need for CPCo management to ensure that steps are taken to preclude future recurrence of this violation we have concluded that a \$100,000 civil penalty is appropriate. An Enforcement Conference was held on October 11, 1983, in Region III, between Consumers Power Company and the NRC Staff to discuss the violation.

In view of the history of significant problems experienced during the construction of the Midland nuclear facility and the failure of CPCo management to prevent the recurrence of such problems, Region III is considering an Order which will require the licensee to have an independent comprehensive

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Jane A. Axelrad

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management review conducted. That proposed order will follow for your review.

W. H. Schultz
Enforcement Coordinator

Attachments:

- 1. Dft ltr to licensee w/Notice of Violation and Proposed Imposition of Civil Penalty

cc w/attachments:

James Lieberman, ELD
Regional Enforcement
Coordinators, RI, RII, RIV, RV

RIII *JAA*
Gardner/db
10/27/83
11

RIII
RLS
Landsman

RIII *JAA*
Harrison
10/11/83

RIII
RFW
Warnick
10/11/83

RIII
LHZ
Lewis
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RIII
WVS
Schultz
10-17-83

RIII
J
Davis
10/17

RIII
JK
Keppler
10/18/83

Docket No. 50-329

Docket No. 50-330

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Consumers Power Company

ATTN: Mr. John D. Selby

President

212 West Michigan Avenue

Jackson, MI 49201

Gentlemen:

This refers to the investigation conducted by the Office of Investigation during the period January 3 through August 8, 1983, of activities at the Midland Nuclear Plant authorized by NRC Construction Permits No. CPPR-81 and No. CPPR-82.

This investigation revealed that Consumers Power Company (CPCo) had excavated soil material from below the deep "Q" duct bank and initiated fireline relocation activities in "Q" soils without prior NRC authorization. Further, the excavation of soil material below the deep "Q" duct bank was contrary to previous directives of the NRC staff which instructed the licensee that such excavation was not authorized. These actions violated paragraph 2.G. of the Midland Construction Permit, as amended on May 26, 1982.

After consultation with Director of the Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$100,000 to emphasize the need for you to construct your facility in accordance with the Construction Permit. The violation in the Notice has been categorized as a Severity Level III violation as described in the General Policy and Procedure for NRC Enforcement Actions (Appendix C to 10 CFR Part 2). A civil penalty of \$100,000 is being proposed because of the significance of the management breakdown discussed above.

In your response to this letter, please follow the instructions in the Notice. Your response should specifically address corrective actions you have taken or plan to take to improve management effectiveness for ensuring that Construction Permit requirements are met. Your written reply to this letter and the results of future inspections will be considered in determining whether further enforcement action is appropriate.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room.

DRAFT

The response directed by this letter and the enclosed Notice are not subject to the clearance procedure of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

James G. Keppler
Regional Administrator

Enclosure:

Notice of Violation and
Proposed Imposition of Civil
Penalty

cc w/encl:

DMB/Document Control Desk (RIDS)

Resident Inspector, RIII

The Honorable Charles Bechhoefer, ASLB

The Honorable Jerry Harbour, ASLB

The Honorable Frederick P. Cowan, ASLB

The Honorable Ralph S. Decker, ASLB

William Paton, ELD

Michael Miller

Ronald Callen, Michigan

Public Service Commission

Myron M. Cherry

Barbara Stamiris

Mary Sinclair

Wendell Marshall

Colonel Steve J. Gadler (P.E.)

Howard Levin (TERA)

Billie P. Garde, Government

Accountability Project

Lynne Bernabei, Government

Accountability Project

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Consumers Power Company

Docket No. 50-329

Midland Energy Center

Docket No. 50-330

Midland, Michigan

Construction Permit No. CPPR-81

Construction Permit No. CPPR-82

EA 83-

On July 28, 1982, an NRC inspector determined that the licensee had excavated soil material from below the deep "Q" duct bank, and had initiated fireline relocation activities in "Q" soils without prior NRC authorization. These actions violated paragraph 2.G. of the Midland Construction Permits, as amended on May 26, 1982.

To emphasize the need for the licensee to construct its facility in accordance with the Construction Permits, we propose to impose a Civil Penalty in the amount of \$100,000. In accordance with General Policy and Procedure for NRC Enforcement Actions (10 CFR Part 2, Appendix C) 47 FR 9987 (March 9, 1982), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violation and the associated civil penalty is set forth below.

Construction Permits No. CPPR-81 and No. CPPR-82, paragraph 2.G.(1) and 2.G.(1)a state, in part, "The applicant shall obtain explicit prior approval from the NRC staff...before proceeding with the following soils-related activities...any placing, compacting, excavating, or drilling soil materials around safety-related structures and systems."

Contrary to the above, the licensee excavated soil material below the deep "Q" duct bank on July 23, 1982, and initiated fireline relocation activities in "Q" soils on July 27, 1982, without prior NRC authorization. Further, the excavation of soil material below the deep "Q" duct bank was contrary to previous directives of the NRC staff on May 20, 21, and 26, 1982 which instructed the licensee that such excavation was not authorized.

This is a Severity Level III violation (Supplement II) (Civil Penalty - \$100,000).

Pursuant to the provisions of 10 CFR 2.201, Consumers Power Company is hereby required to submit to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 and a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, IL 60137, within 30 days of the date of this Notice a written statement or explanation, including for the alleged violation; (1) admission or denial of the alleged violation; (2) the reasons for the violation, if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid

further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Consumers Power Company may pay the civil penalty in the amount of \$100,000 or may protest imposition of the civil penalty in whole or in part by a written answer. Should Consumers Power Company fail to answer within the time specified, the Director, Office of Inspection and Enforcement will issue an order imposing the civil penalty proposed above. Should Consumers Power Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty such answer may: (1) deny the violation listed in the Notice, in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, in whole or in part, such answer may request remission or mitigation of the penalty. In requesting mitigation of the proposed penalty, the five factors contained in Section IV(B) of 10 CFR Part 2, Appendix C, should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate statements or explanations by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. Consumers Power Company's attention is directed to the other provisions of 10 CFR 2.205, regarding the procedures for imposing a civil penalty.

DRAFT

Upon failure to pay any civil penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

FOR THE NUCLEAR REGULATORY COMMISSION

James G. Keppler
Regional Administrator

Document Name:
GAP/MIDLAND PETITION 2

Requestor's ID:
JUDY

Author's Name:
J. Stone

Document Comments:

DIRECTOR'S DECISION UNDER 10 CFR 2.206

Introduction

By letter to the Nuclear Regulatory Commission (NRC) dated June 13, 1983, the Government Accountability Project (GAP), on behalf of the Lone Tree Council, concerned citizens of central Michigan, and numerous nuclear workers on the Midland Nuclear Power Plant site, requested that, among other things, the NRC take immediate action to modify the construction permits to add hold points, require a management audit of Consumers Power Company and reject the construction completion program as written at the date of the petition. The letter was referred to the Director of the Office of Inspection and Enforcement for treatment as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations.

On July 22, 1983, Edward L. Jordan, Acting Director of the Office of Inspection and Enforcement acknowledged receipt of the GAP petition and informed GAP that its request for immediate action was denied. Mr. Jordan noted that safety-related work at the Midland site had been stopped, with the exception of certain specified activities, and that the NRC staff was closely following the current activities at the Midland site. Mr. Jordan further noted that Consumers Power Company had agreed not to proceed with its Construction Completion Program (CCP) until authorized by the NRC. The staff expected to be able to complete its evaluation of the GAP request before final action was taken on the CCP. Consequently, Mr. Jordan concluded that "continuation of currently authorized activities at Midland should not affect the staff's

ability to grant the requested relief." (Letter from Edward I. Jordan, Acting Director, Office of Inspection and Enforcement to Billie Pirner Garde, (July 22, 1983)). The staff has now completed its evaluation of the petition, and for the reasons stated herein, the request is granted in part and denied in part.

Issues Raised

In its letter, GAP requested that the following six actions be taken by the Commission:

1. Modify the Construction Permit (Midland Nuclear Power Plant, Units 1 and 2) to include mandatory "hold points" on the balance-of-plant (BOP) work and incorporate the current Atomic Safety and Licensing Board (ASLB or Board) ordered "hold points" on the soils remedial work into the Midland Construction permit (sic).
2. Require a management audit of Consumers Power Company (CPCo) by an independent, competent management auditing firm that will determine the causes of the management failures that have resulted in the soils settlement disaster and the recently discovered Quality Assurance breakdown.
3. Reject the Construction Completion Plan (CCP) as currently proposed, including a rejection of Stone and Webster to conduct the third party audit of the plant. Instead a truly independent, competent, and credible third party auditor should be selected with public participation in the process.
4. Remove the Quality Assurance/Quality Control function from the Midland Project Quality Assurance Department (MPQAD) and replace them with an independent team of QA/QC personnel that reports simultaneously to the NRC and CPCo management.
5. Increase the assignment of NRC personnel to include additional technical and inspection personnel as requested by the Midland Section of the Office of Special Cases (OSC); and
6. Require a detailed review of the soils settlement resolution as outlined in the Supplemental Safety Evaluation Report, incorporating a technical analysis of the implementation of the underpinning project at the current stage of completion.

GAP's issue 5 relates to a matter of internal Commission business, namely the allocation of staff to inspection of facilities. It is not within the staff's power to either grant or deny this request, although RIII has requested that inspection personnel available to work on Midland be augmented and anticipates that the request will be granted. The actual creation of positions within the OSC is, however, a matter that will be determined by the Commission budget process. For these reasons, the staff is taking no action upon GAP's issue five.

Background

The Consumers Power Company (CPCo or licensee) holds Construction Permits No. CPPR-81 (Unit 1) and CPPR-82 (Unit 2) issued by the Atomic Energy Commission in 1972, which authorized construction of the Midland nuclear facility. The Midland nuclear facility is located in Midland, Michigan and consists of two pressurized water reactors of Babcock and Wilcox design and related facilities for use in the commercial generation of electric power.

Since the start of construction, Midland has experienced significant Quality Assurance (QA) problems. Following the identification of each of these problems, the licensee has taken action to correct the problems and to upgrade the QA program. In spite of the corrective actions taken, the licensee has continued to experience problems in the implementation of quality in construction. Corrective actions taken were directed toward each specific problem and root cause determination and a program to review isolated events for their generic application were ineffective. Significant construction problems identified to date include:

- a. 1973 - cadweld splicing deficiencies
- b. 1976 - rebar omissions
- c. 1977 - bulge in the Unit 2 Containment Liner Plate
- d. 1977 - tendon sheath location errors
- e. 1978 - Diesel Generator Building settlement
- f. 1980 - Zack Company heating, ventilation, and air conditioning (HVAC) deficiencies
- g. 1980 - reactor pressure vessel anchor stud failures
- h. 1981 - piping suspension system installation deficiencies
- i. 1982 - electrical cable misinstallations

In 1980 Consumers Power Company (CPCo) reorganized the existing QA department so as to increase the involvement of high level CPCo management in onsite QA activities. The reorganized QA department was given the title of integrated Midland Project Quality Assurance Department (MPQAD). The responsibility for Quality Control (QC) of HVAC work was removed from the HVAC contractor, Zack, and assigned to MPQAD.

In May 1981 the NRC conducted a special indepth team inspection of the Midland site to examine the implementation status and effectiveness of the QA program. Based on this inspection, Region III concluded that the Midland QA program was acceptable. (Inspection Report 50-329/81-12; 50-330/81-12).

The special team did, however, identify deficiencies in previous QC inspections of piping supports/restraints and electrical cable installations. As a result of staff discussions about the seriousness of these findings and of similar indications of deficiencies identified in the Systematic Assessment of Licensee

Performance (SALP) Report issued in April 1982, a special Midland Section in Region III was formed in July 1982. The Midland Section devoted increased attention to inspection of the Midland facility, including upgrading the constructor's (Bechtel) QC program. In September 1982, the licensee integrated the Bechtel QC organization into the MPQAD. This reorganization reflected the recommendations of the NRC staff. As part of this change, the licensee also undertook to retrain and recertify all previously certified Bechtel QC inspectors.

As a result of Region III findings of significant problems with equipment in the diesel generator building developed from an inspection during the period of October 1982 through January 1983, and the subsequent identification of similar findings by the licensee in other portions of the plant, the licensee, in December 1982, halted the majority of the safety related work activities. In view of the history of QA problems at the Midland plant and the lack of effectiveness of corrective actions to resolve these problems, the NRC required the licensee to develop a comprehensive program to verify the adequacy of previously installed components and to assure the adequacy of future component installations. On December 2, 1982, Consumers Power Company proposed the CCP.

The CCP is CPCo's plan to provide guidance in the planning and management of the construction and quality activities necessary for completion of the construction of the Midland Nuclear Plant. To date the CCP has undergone several alterations in response to comments from the NRC and members of the public. As finally revised and submitted on August 26, 1983, the CCP includes: (1) NRC hold points; (2) the requirement for 100% reinspection of accessible installations; (3) the integration of QC with MPQAD; (4) the retraining and

recertification of QC inspectors; (5) the general training of licensee and contractor personnel in quality requirements for nuclear work, requirements of the CCP, safety orientation and inspection and work procedures; (6) the revision, as necessary, of Project Quality Control Instructions; (7) CCP team training; and (8) an independent third party review of CCP activities. GAP's letter is based upon the June 3, 1983 version of the CCP. The staff believes that some of GAP's concerns have been resolved in the subsequent versions submitted on June 10, and August 26, 1983.

The CCP does not include the remedial soils program, nuclear steam supply system installation, HVAC installations, and the reinspection of pipe hangers and electrical cable. The remedial soils activities are being closely inspected under the provisions of the Licensing Board's April 30, 1983 order and a Work Authorization Procedure. The staff does not consider it necessary to require further review of the remedial soils activities. Nuclear steam supply system installation and HVAC installation were not drawn into question by the diesel generator building inspection and the staff has not developed facts to indicate that installation of these systems should be included in the CCP. Reinspection of the pipe hangers and electrical cable were not included in the CCP because that reinspection is being done under a separate commitment to the NRC. See letters from Keppler (NRC) to Cook (CPCo) dated August 30 and September 2, 1982. All new work and rework on pipe hangers and electrical cable will be part of CCP Phase 2.

The CCP is divided into two phases. Phase 1 is a systematic review of the safety-related systems and areas of the plant. This review will be carried out on an area-by-area basis and will be done by teams with responsibility for particular systems. The purpose of Phase 1 is to provide: 1) a clear identification of remaining installation work, including any necessary rework, and, 2) an up-to-date inspection status to verify the quality of existing work.

Phase 2 will take the results of the Phase 1 review and complete the necessary work or rework. The teams organized for Phase 1 activities will continue as the responsible organizational units to complete the work in Phase 2.

The CCP is designed to address the generic applicability of the problems identified by the NRC's inspection of the diesel generator building. If other significant problems are identified during the course of the CCP, the CCP will be expanded to track their resolution. The objective of the CCP is to look at the plant hardware and equipment, identify existing problems, correct all the problems and complete construction of the plant.

Consideration of Issues Raised

Issue One. In this issue, GAP requests the Commission to modify the Midland construction permits to require "hold points" on the balance-of-plant work and to incorporate into the construction permits the NRC "hold points" on remedial soils work authorized by the Atomic Safety and Licensing Board.

In its letter, GAP requested the following hold points in the CCP to require NRC or third party review before proceeding:

1. Review the Construction Work Packages (CWP) and Quality Work Packages (QWP) before the initiation of Phase 2 activities. (p. 11).
2. Review training and recertification of QA/QC employees, the process for verification of completed inspections activity, and the process for the installation and inspection status activity before beginning any Phase 1 work. GAP requests that the responsibility for the release of work be transferred to the third party team. (pp. 11-12).
3. During the Phase 1 reinspection activities either an NRC or a third party hold point should be required to determine the adequacy of the "accessible systems" approach. (p. 13).

On December 2, 1982, when CPCo presented the CCP to the NRC, CPCo was informed by Region III staff that it would be necessary to incorporate NRC hold points into the CCP. In the response to this position, CPCo identified four points for review by NRC inspectors of completed work prior to proceeding to the next activity. These hold points were:

1. Review and approval of training and recertification of QC inspectors before beginning Phase 1.
2. Review and approval of CCP team training before beginning Phase 1.
3. Review and approval of the Quality Verification Program (QVP) and status assessments before beginning Phase 1.
4. Review and approval of the program for rework or systems completion work before beginning Phase 2.

Since that time, the licensee has been doing preliminary work, such as team training and training and recertification of QC inspectors, in preparation for beginning Phase 1 activities, QVP and status assessments. The NRC was informed when each of the first two hold points was reached. NRC inspectors conducted a review of the completed action and in some cases required additional work by the licensee before allowing CPCo to proceed to the next activity.

Hold points 3 and 4 are described in the CCP, Section 5.0, Program Implementation. These hold points partially satisfy GAP's requested hold points 1 (review the CWP's and QWP's before initiation of Phase 2 activities) 2 (review the process for verification, installation, and inspection status activities). Hold points 3 and 4 will entail that degree of NRC review of programs and processes that will provide the staff with reasonable assurance that CPCo is ready to proceed with the next activity. The staff perceives no need to specify rigidly in advance that a review of work packages will be required before the initiation of Phase 2 activities. The requested hold point for review of training and recertification of QA/QC employees was satisfied by hold point 1, as described above.

As described in response to Issue 3, below, a third party will also be conducting an extensive "overview" of the CCP and other construction completion activities. The fact that the third party will also have hold point controls over CPCo (see p. 34 of the CCP) should provide additional assurance that construction is proceeding in accordance with all applicable requirements. The NRC and the third party will monitor the reinspection activities. If non-conformances are found that could have a significant impact on inaccessible items, the scope of the CCP may have to be expanded to include those items. The staff believes that these trial programs and monitoring activities will provide control similar to that requested in GAP's proposed hold point 3 (to establish a hold point during Phase 1 reinspection to determine the adequacy of the "accessible systems" approach).

In summary, the staff believes that the NRC hold points and the third party hold points together satisfy GAP's requested hold points, with the possible exception of the request that the NRC establish a hold point for review of work packages prior to initiation of Phase 2 activities. The CCP, including hold points, will be made a requirement upon the licensee by a Confirmatory Order, which has the effect of amending the Midland construction permits. Our approval of the CCP is, in effect, a grant of GAP's requested hold points, with the exception noted above. GAP's request that an NRC review of work packages be required prior to initiation of Phase 2 activities is denied.

With respect to the second aspect of GAP's Issue 1, the action requested by GAP to incorporate the NRC hold-points authorized by the Licensing Board's April 30, 1982 Memorandum and Order is unnecessary. Those hold-points were incorporated into the construction permits by amendment, dated May 26, 1982.

Accordingly, the construction permits already prohibit CPCo from performing the following activities without "explicit prior approval" from the staff:

- (a) any placing, compacting, excavating, or drilling soils materials around safety-related structures and systems;
- (b) physical implementation of remedial action for correction of soils-related problems under and around safety-related structures and systems, including but not limited to:
 - (i) dewatering systems
 - (ii) underpinning and service water building
 - (iii) removal and replacement of fill beneath the feedwater isolation valve pit areas, auxiliary building electrical penetration areas and control tower, and beneath the turbine building
 - (iv) placing of underpinning supports beneath any of the structures listed in (iii) above
 - (v) compaction and loading activities;
- (c) construction work in soil materials under or around safety-related structures and systems such as field installation, or rebedding, of conduits and piping.

Consumers Power Company (Midland Plant, Units 1 and 2), LBP-82-35, 15 NRC 1060, 1073 (1982).

Issue 2. GAP's second request is that the NRC require a management audit of CCo's performance on the Midland project. The Staff is deferring a response to this request. We have found the CCP to be an acceptable program for the completion of construction of the Midland plant and believe that the CCP can be commenced without prejudice to a subsequent decision by the NRC to require an independent management audit. The decision on whether to require an independent management audit will be influenced by CCo's performance under the CCP. It is anticipated that the Staff will be in a position to determine whether to require a management audit within six months of the commencement of the CCP. The Staff will respond to this aspect of GAP's petition at that time.

Issue 3. In this issue, GAP requests the Commission to reject the CCP, as proposed in the June 3, 1983 revision, including the proposal that Stone & Webster (S&W) conduct the third party overview of the CCP. The focus of this issue is that the CCP should be rejected because: 1) S&W does not meet the Commission's criteria for the independence of a third party reviewer (page 19), 2) S&W has not submitted a minimally adequate audit proposal (pp. 18-19), and 3) there have been inadequate opportunities for public input to the NRC staff's review of S&W (pp. 19-20).

GAP argues: "under both a literal and realistic reading of the Commission's primary financial criteria, that the third party not have any direct previous involvement with the Company." (p. 19). The criteria referred to were set forth in a letter (with attachment) from Chairman Palladino to Congressmen Ottinger and Dingell, dated February 1, 1982. The criteria do not require that a proposed third party reviewer have had no previous involvement with the utility whose program it will be reviewing. Rather, the criteria require that the company, and individuals within that company who will be participating in the third party review, not be reviewing specific activities in which they were previously involved. (p. 1 of attachment to the Ottinger/Dingell letter). GAP maintains that S&W should not be permitted to serve both as the overviewer of remedial soils work at Midland and as the overviewer of the CCP. Since the remedial soils activities are not within the scope of the CCP, the staff does not perceive any conflict under the Commission's independence criteria.

GAP also asserts that it is "ironic" that the independence criteria were used to disqualify TERA from consideration as the overviewer under the CCP, but S&W was not disqualified on the ground of independence. (Letter, p. 19). TERA's disqualification (see letter from Keppler (NRC) to Cook (CPCo), dated March 28, 1983, p. 3) was based on the potential for conflict that could be raised by TERA overview under the CCP of determinations that TERA had previously made under the Independent Design and Construction Verification Program (IDCVP) of the adequacy of the construction of the Auxiliary Feedwater System, the onsite emergency AC power supplies and the HVAC system for the control room. Since TERA has been approved by the NRC to perform the IDCVP, the staff believes that TERA would not satisfy the Commission independence criteria for the third party overview of the CCP.

To address GAP's concern about the adequacy of S&W's audit proposal, one must consider the written program documents being utilized to directly control and implement the CIO program and the applicable S&W corporate master program documents. The documents written expressly for the CIO include:

1. CIO Program Document dated April 1, 1983.
2. CIO Quality Assurance Plan.
3. Third Party CIO Plan.
4. CIO Assessment Procedure, 10.01.
5. Nonconformance Identification and Reporting Procedure, 15.01.
6. A detailed attribute checklist for each CPCo Project Quality Control Instruction (PQCI).
7. A detailed checklist to review generic types of requirements (for non-PQCI activities); e.g., QA Audits and Surveillances.
8. Additional Quality Control Instruction as needed to provide adequate overview control.

The following S&W corporate master program documents will also be utilized for the CIO, as required:

1. QA Topical Report SWSQAP 1-74A, S&W Standard Nuclear Quality Assurance Program.
2. S&W Quality Standards; e.g., for quality sampling.
3. S&W Quality Assurance Directives.

The NRC met with S&W on August 25, 1983, to gain additional insight into the total S&W program. This meeting was held in Midland, Michigan and was open to the public. Questioning by the public on the CIO was permitted at the end of the meeting.

The program described by S&W in the above documents and at the August 25, 1983 meeting has been reviewed by the NRC staff and found to constitute an acceptable third party overview program. Contrary to GAP's assertion, S&W has set forth an adequate third party audit proposal. The CIO program will also be audited independently by S&W - Boston and on a continuing inspection basis by the NRC.

The current number of S&W personnel onsite for the CIO was also a GAP concern. The numbers of qualified people will vary with the demand of the work activities to be overviewed. S&W's CIO staffing plan currently has 9 people assigned at the Midland site and there are currently planned increases to 32 people as work activities dictate. These numbers, however, are only estimates and S&W will commit whatever personnel is necessary to conduct the CIO. The number of personnel used is not subject to limitation by CPCo.

The S&W overview activities of the CCP to date have been somewhat limited, since the CCP was not yet approved. Activities being overviewed were the pre-Phase I. The activities being overviewed have included the following CCP and non-CCP activities:

- . Program and procedure reviews.
- . Review of PQCI's.
- . Review of MPQAD QA/QC personnel training and certification.
- . Review of general training of CPCo and Bechtel personnel,
including construction craftspersons.
- . Review of CCP Management Reviews.
- . Review of System Interaction Walkdowns.
- . Review of Design Documents.

The above reviews have identified various concerns and one nonconformance that required CPCo actions to resolve. The NRC staff has reviewed the CIO activities performed to date and has found this overview, including actions taken by CPCo, to have been adequate.

The purpose of the independent third party overview is to provide additional assurance that the CCP is adequate and will be properly implemented. This overview requirement was necessitated by the loss of NRC staff confidence in CPCo to implement successfully the Quality Assurance Program. The CIO will remain in place at the Midland site until the necessary confidence level has been restored to the satisfaction of the NRC staff. This may take until construction is completed; i.e., fuel load. CPCo also has the option to continue the CIO as an additional system of checks and balances, beyond any period of time required by the staff. The staff does not, therefore, agree with GAP's criticism that the CIO is of insufficient duration.

GAP asserts that there has been a lack of opportunity for public input into the approval of the third party overviewer of the CCP. The staff does not agree. Two meetings between CPCo and the staff to discuss the CCP (February 8, and August 11, 1983) and one meeting between S&W and the staff to discuss the CIO (August 25, 1983) were conducted in Midland, Michigan and were open to public observation. Evening sessions to receive the comments of the public on the CCP were held on February 8, and August 11, 1983. A separate meeting between the staff and intervenors in the Midland operating license proceeding, including GAP as counsel for one of the intervenors, was also held on August 11, 1983. Additional opportunities for comment have been afforded by frequent telephone conversations between the staff and GAP and by the public comment session (see above) at the close of the August 25, 1983 meeting with S&W.

We believe GAP's reference to "closed door" meetings may refer to working level meetings that have been held between principally the Midland Section and CPCo site personnel, and, in some cases, S&W onsite personnel. Such meetings were necessary to enable the Midland Section to achieve a full understanding of the CCP including the CIO. There is nothing in NRC regulations or policies which requires such discussions to be held in public meetings. These meetings are a part of the Midland Section's inspection activities and it would be impractical to require such activities to be scheduled as public meetings.

In summary, the staff believes that adequate opportunity has been afforded for public comment on the approval of S&W as the third party overviewer of the CCP. To the extent practicable, the staff has conducted its discussions with CPCo and S&W in public meetings.

For the reasons set forth above, the staff denies GAP's request that the CCP, including the selection of S&W to conduct the CIO, be rejected.

Issue 4. In this issue, GAP requests that MPQAD be relieved of responsibility for the QA/QC function at the Midland Plant and that an independent team of QA/QC personnel be created which would report simultaneously to the NRC staff and CPCo. In support of its request GAP cites much of the same history of QA/QC deficiencies that the staff summarized in the Background section of this response. As noted above, CPCo has gone through reorganizations starting in 1980 directing at increasing its control over the QA and QC functions at the Midland site. These reorganizations have been consistent with the NRC staff's recommendations.

The changes that CPCo has instituted should improve its capability to discharge its responsibility under Commission regulations (10 CFR 50.34(a)(7) and Appendix B to 10 CFR Part 50) for the establishment and execution of a QA/QC program. While Appendix B (Criterion 1) permits a construction permit holder to delegate to other organizations the detailed execution of the QA/QC program, the history of the Midland project makes it clear that CPCo retained too little control over the QA/QC program. While it has always proven difficult for CPCo and the staff to determine exactly what the problems are with the Midland project and what the best solutions are, the staff believes that CPCo is proceeding in a positive direction by integrating the implementation of the QC function (formerly Bechtel's) into MPQAD because this strengthens the separation of the QC function from the construction function, which remains with Bechtel.

While it would not be a violation of Appendix B for CPCo to retain an independent organization to execute the QA/QC program, CPCo is ultimately responsible for the establishment and execution of the program. Consistent with Appendix B, CPCo could not be removed from responsibility for the QA/QC program to the extent requested by GAP. Further, as stated above, the staff considers the strengthening of MPQAD to be a positive step in improving CPCo's capability to assure the quality of construction of the Midland facility. The staff does not believe that there currently exists the bases for requiring CPCo to retain an outside organization to execute the QA/QC program.

GAP also requests that the independent QA/QC team report simultaneously to the NRC and to CPCo management. GAP apparently intends that the NRC would be involved in making management decisions regarding construction of the facility based upon the reports of the independent QA/QC team. The staff believes there is no basis for this extraordinary departure from the NRC's mandated role as a regulator.

For the reasons set forth above, the staff denies GAP's request that MPQAD be replaced with an independent QA/QC team reporting simultaneously to the NRC and CPCo management.

Issue 6. In this issue, GAP requests that the staff conduct a detailed review of the resolution of the soils settlement, including a technical analysis of the implementation of the underpinning project at the current stage of completion. In its supporting discussion, GAP focuses upon the structural integrity of the diesel generator building.

A detailed review of the program for resolution of the soil settlement problem has previously been conducted by the NRC staff and its consultants. In 1979 the U.S. Army Corps of Engineers was contracted to assist the Staff in the safety review of the Midland Project in the field of geotechnical engineering. After the soils problem became known, additional assistance to the Staff in specialized engineering fields (structural, mechanical, and underpinning) was obtained from the U.S. Naval Surface Weapons Center, Harstead Engineering Associates, Geotechnical Engineers, Inc., and Energy Technology Engineering Center. These consultants assisted in the review of technical studies, participated in design audits, visited the site, provided input to the Safety Evaluation Report, and provided expert testimony before the Atomic Safety and Licensing Board. Thus, the approach to the resolution of the soils settlement issue has been thoroughly studied by the staff and its consultants. The implementation of the remedial soils activities is being closely followed as part of the NRC's inspection program. This inspection program includes ongoing technical analysis by a Region III soils specialist. Additional technical expertise to evaluate implementation is provided by the NRC's Office of Nuclear Reactor Regulation. Additionally, the NRC currently has a standing contract with Geotechnical Engineers Inc. and is using its expertise in assessing aspects of the remedial soils and underpinning activities.

The staff believes that it has conducted a detailed review of the program for resolution of the soils settlement issue and that is conducting on an ongoing basis a technical analysis of the implementation of the underpinning activities. This aspect of GAP's Issue 6 has, therefore, been granted by the actions we have taken.

GAP further requests another study of the seismic design deficiencies of the Midland plant, particularly another review of the diesel generator building. This review would be conducted by a "non-nuclear construction consultant." (p. 23).

The NRC staff has underway a task force study by consultants from Brookhaven National Laboratory (BNL) and NRC structural engineers to evaluate concerns about the structural integrity of the diesel generator building raised by a RIII inspector in testimony before the Subcommittee on Energy and the Environment of the "House Committee on Interior and Insular Affairs. Following their review, a report will be issued addressing the concerns of the RIII inspector. Decisions on whether further actions are required will be made based upon that report. Additional details on the task force were provided to GAP by letter dated August 10, 1983 (Mr. Eisenhut to Ms. Garde) and in Board Notification 83-109, which was transmitted to GAP on July 27, 1983.

GAP requests that the review of the diesel generator building be conducted by a "non-nuclear construction consultant" (Id.). GAP has pointed to the review conducted by BNL in Diablo Canyon as the type of independent review they are requesting. As noted above, BNL is providing consultants for the diesel generator building review. The staff believes that the task force satisfies GAP's request. In any event, the staff believes it has established a competent team to resolve the concerns raised. To the extent GAP is requesting a review different than that constituted by the staff, its request is denied.

GAP also appears to be requesting an additional review of the seismic design of structures other than the diesel generator building. GAP has not, however, stated any basis why reviews additional to those reflected in the Safety Evaluation Report and Supplements are necessary. The staff does not believe that an additional review by an outside organization of the facility's seismic design is necessary. This aspect of Issue 6 is therefore, denied.

Conclusion

Based upon the foregoing discussion, I have granted GAP's petition in part and denied it in part. By separate action, the Regional Administrator of RIII is approving the CCP and the selection of S&W to conduct the CIO. The Regional Administrator is also issuing an Order confirming CPCo's commitment to undertake the CCP.

A copy of this decision will be placed in the Commission's Public Document Room (PDR) located at 1717 H Street, NW, Washington, DC 20555 and in the Local PDR located at

A copy of this decision will be filed with the Office of the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

R. C. DeYoung
Director, IE

Dated at Bethesda, Maryland,
this day of September, 1983

Document Name:
GAP/MIDLAND PETITION 2

Requestor's ID:
JUDY

Author's Name:
J. Stone

Document Comments:

DIRECTOR'S DECISION UNDER 10 CFR 2.206

Introduction

By letter to the Nuclear Regulatory Commission (NRC) dated June 13, 1983, the Government Accountability Project (GAP), on behalf of the Lone Tree Council, concerned citizens of central Michigan, and numerous nuclear workers on the Midland Nuclear Power Plant site, requested that, among other things, the NRC take immediate action to modify the construction permits to add hold points, require a management audit of Consumers Power Company and reject the construction completion program as written at the date of the petition. The letter was referred to the Director of the Office of Inspection and Enforcement for treatment as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations.

On July 22, 1983, Edward L. Jordan, Acting Director of the Office of Inspection and Enforcement acknowledged receipt of the GAP petition and informed GAP that its request for immediate action was denied. Mr. Jordan noted that safety-related work at the Midland site had been stopped, with the exception of certain specified activities, and that the NRC staff was closely following the current activities at the Midland site. Mr. Jordan further noted that Consumers Power Company had agreed not to proceed with its Construction Completion Program (CCP) until authorized by the NRC. The staff expected to

be able to complete its evaluation of the GAP request before final action was taken on the CCP. Consequently, Mr. Jordan concluded that "continuation of currently authorized activities at Midland should not affect the staff's ability to grant the requested relief." Letter from Edward L. Jordan, Acting Director, Office of Inspection and Enforcement to Billie Pirner Garde, (July 22, 1983). The staff has now completed its evaluation of the petition, and for the reasons stated herein, the request is granted in part and denied in part.

Issue: Raised

In its letter, GAP requested that the following six actions be taken by the Commission:

1. Modify the Construction Permit (Midland Nuclear Power Plant, Units 1 and 2) to include mandatory "hold points" on the balance-of-plant (BOP) work and incorporate the current Atomic Safety and Licensing Board (ASLB or Board) ordered "hold points" on the soils remedial work into the Midland Construction permit (sic).
2. Require a management audit of Consumers Power Company (CPCo) by an independent, competent management auditing firm that will determine the causes of the management failures that have resulted in the soils settlement disaster and the recently discovered Quality Assurance breakdown.
3. Reject the Construction Completion Plan (CCP) as currently proposed, including a rejection of Stone and Webster to conduct the third party audit of the plant. Instead a truly independent, competent, and credible third party auditor should be selected with public participation in the process.
4. Remove the Quality Assurance/Quality Control function from the Midland Project Quality Assurance Department (MPQAD) and replace them with an independent team of QA/QC personnel that reports simultaneously to the NRC and CPCo management.

5. Increase the assignment of NRC personnel to include additional technical and inspection personnel as requested by the Midland Section of the Office of Special Cases (OSC); and
6. Require a detailed review of the soils settlement resolution as outlined in the Supplemental Safety Evaluation Report, incorporating a technical analysis of the implementation of the underpinning project at the current stage of completion.

GAP's issue 5 relates to a matter of Commission allocation of staff among competing projects. It is not within the staff's power to either grant or deny this request. The actual creation of positions within the OSC is a matter that will be determined by the Commission budget process. RIII has requested that inspection personnel available to work on Midland be augmented and anticipates that the request will be granted. Whatever positions are allocated to the Midland Section for FY 84, it should also be noted would not be effectuated through any modification, suspension, or revocation of the Midland construction permits (see 10 CFR 2.202 and 2.206). For these reasons, the staff is taking no action upon GAP's issue five.

Background

The Consumers Power Company (CPCo or licensee) holds Construction Permits No. CPPR-81 (Unit 1) and CPPR-82 (Unit 2) issued by the Atomic Energy Commission in 1972, which authorized construction of the Midland nuclear facility. The Midland nuclear facility is located in Midland, Michigan and consists of two pressurized water reactors of Babcock and Wilcox design and related facilities for use in the commercial generation of electric power.

Since the start of construction, Midland has experienced significant Quality Assurance (QA) problems. Following the identification of each of these problems, the licensee has taken action to correct the problems and to upgrade the QA program. In spite of the corrective actions taken, the licensee has continued to experience problems in the implementation of quality in construction. Corrective actions taken were directed toward each specific problem and root cause determination and a program to review isolated events for their generic application were ineffective. Significant construction problems identified to date include:

- a. 1973 - cadweld splicing deficiencies
- b. 1976 - rebar omissions
- c. 1977 - bulge in the Unit 2 Containment Liner Plate
- d. 1977 - tendon sheath location errors
- e. 1978 - Diesel Generator Building settlement
- f. 1980 - Zack Company heating, ventilation, and air conditioning (HVAC) deficiencies
- g. 1980 - reactor pressure vessel anchor stud failures
- h. 1981 - piping suspension system installation deficiencies
- i. 1982 - electrical cable misinstallations

In 1980 Consumers Power Company (CPCo) reorganized the existing QA department so as to increase the involvement of high level CPCo management in onsite QA activities. The reorganized QA department was given the title of integrated Midland Project Quality Assurance Department (MPQAD). The responsibility for Quality Control (QC) of HVAC work was removed from the HVAC contractor, Zack, and assigned to MPQAD.

In May 1981 the NRC conducted a special indepth team inspection of the Midland site to examine the implementation status and effectiveness of the QA program. Based on this inspection, Region III concluded that the Midland QA program was acceptable. (Inspection Report 50-329/81-12; 50-330/81-12).

The special team did, however, identify deficiencies in previous QC inspections of piping supports/restraints and electrical cable installations. As a result of staff discussions about the seriousness of these findings and of the ratings given to CPCo in the SALP Report issued in April 1982, a special Midland Section in Region III was formed in July 1982. The Midland Section devoted increased attention to inspection of the Midland facility, including upgrading the constructor's (Bechtel) QC program. In September 1982, the licensee integrated the Bechtel QC organization into the MPQAD. This reorganization reflected the recommendations of the NRC staff. As part of this change, the licensee also undertook to retrain and recertify all previously certified Bechtel QC inspectors.

As a result of Region III findings of significant problems with equipment in the diesel generator building developed from an inspection during the period of October 1982 through January 1983, and the subsequent identification of similar findings by the licensee in other portions of the plant, the licensee, in December 1982, halted the majority of the safety related work activities. In view of the history of QA problems at the Midland plant and the lack of effectiveness of corrective actions to resolve these problems, the NRC required the licensee to develop a comprehensive program to verify the adequacy of previously installed components and to assure the adequacy of future component installations. On December 2, 1982, Consumers Power Company proposed the CCP.

The CCP is CCo's plan to provide guidance in the planning and management of the construction and quality activities necessary for completion of the construction of the Midland Nuclear Plant. To date the CCP has undergone several alterations in response to comments from the NRC and members of the public. As finally revised and submitted on August 26, 1983, the CCP includes: (1) NRC hold points; (2) the requirement for 100% reinspection of accessible installations; (3) the integration of QC with MPCAD; (4) the retraining and recertification of QC inspectors; (5) the general training of licensee and contractor personnel in quality requirements for nuclear work, requirements of the CCP, safety orientation and inspection and work procedures; (6) the revision, as necessary, of Project Quality Control Instructions; (7) CCP team training; and (8) an independent third party review of CCP activities. GAP's letter is based upon the June 3, 1983 version of the CCP. The staff believes that some of GAP's concerns have been resolved in the subsequent versions submitted on June 10, and August 26, 1983.

The CCP does not include the remedial soils program, nuclear steam supply system installation, HVAC installations, and the reinspection of pipe hangers and electrical cable. The remedial soils activities are being closely inspected under the provisions of the Licensing Board's April 30, 1983 order and a Work Authorization Procedure. The staff does not consider it necessary to require further review of the remedial soils activities. Nuclear steam supply system installation and HVAC installation were not drawn into question by the diesel generator building inspection or CCo's subsequent findings. The staff has not developed sufficient facts to warrant inclusion of these systems in the CCP.

Reinspection of the pipe hangers and electrical cables were not included in the CCP because that reinspection is being done under a separate commitment to the NRC. See letter from Keppler (NRC) to Cook (CPCo) dated August 30 and September 2, 1982. All new work and rework on pipe hangers and electrical cables will be part of CCP Phase 2.

The CCP is divided into two phases. Phase 1 is a systematic review of the safety-related systems and areas of the plant. This review will be carried out on an area-by-area basis and will be done by teams with responsibility for particular systems. The purpose of Phase 1 is to provide: 1) a clear identification of remaining installation work including any necessary rework, and, 2) an up-to-date inspection status to verify the quality of existing work.

Phase 2 takes the results of the Phase 1 review and completes the necessary work or rework. The teams organized for Phase 1 activities will continue as the responsible organizational units to complete the work in Phase 2.

The CCP is designed to address the generic applicability of the problems identified by the NRC's inspection of the diesel generator building. If other significant problems are identified during the course of the CCP, the CCP will be expanded to track their resolution. The objective of the CCP is to look at the plant hardware and equipment, identify existing problems, correct all the problems and complete construction of the plant.

Consideration of Issues Raised

Issue One. In this issue, GAP requests the Commission to modify the Midland construction permits to require "hold points" on the balance-of-plant work and to incorporate onto the construction permits the NRC "hold points" on remedial soils work authorized by the Atomic Safety and Licensing Board.

In its letter, GAP requested the following hold points in the CCP to require NRC or third party review before proceeding as follows:

1. Review the Construction Work Packages (CWP) and Quality Work Packages (QWP) before the initiation of Phase 2 activities. (Page 11)
2. Review training and recertification of QA/QC employees, the process for verification of completed inspections activity, and the process for the installation and inspection status activity before beginning any Phase 1 work. GAP requests that the responsibility for the release of work be transferred to the third party team (Pages 11-12).
3. During the Phase 1 reinspection activities either an NRC or a third party hold point should be required to determine the adequacy of the "accessible systems" approach. (Page 13).

On December 2, 1982, when CPCo presented the CCP to the NRC, CPCo was informed by Region III staff that it would be necessary to incorporate NRC hold points into the CCP. In the response to this position, CPCo identified four points for review by NRC inspectors of completed work prior to proceeding to the next activity. These hold points were:

1. Review and approval of training and recertification of QC inspectors before beginning Phase 1.
2. Review and approval of CCP team training before beginning Phase 1.
3. Review and approval of the Quality Verification Program (QVP) and status assessments before beginning Phase 1.
4. Review and approval of the program for rework or systems completion work before beginning Phase 2.

Since that time, the licensee has been doing preliminary work, such as team training and training and recertification of QC inspectors, in preparation for beginning Phase 1 activities, QVP and status assessments. The NRC was informed when each of the first two hold points was reached. NRC inspectors conducted a review of the completed action and in some cases required additional work by the licensee before allowing CCP to proceed to the next activity.

Hold points 3 and 4 are described in the CCP, Section 5.0, Program Implementation.

The NRC has carefully reviewed the CCP and is satisfied that the NRC hold points, as identified in the CCP will enable the NRC to assess the adequacy of the licensee's implementation of its program prior to allowing the next work activities to proceed. The staff does not believe it is necessary to specify third-party hold points at this time. Rather, the third-party should have the freedom to select when hold points are to be used in its overview role. In addition, the NRC and the third party will monitor the reinspection activities. If nonconformances are found that have a significant impact on inaccessible items, the scope of the CCP may have to be expanded to include those items.

The staff considers these controls to provide adequate mechanisms for the NRC to assure successful implementation of preparatory steps before allowing major under the CCP to proceed. Some of the hold-points requested by GAP are now included in the CCP and the staff denies GAP's request that additional hold-points be required.

The action requested by GAP to incorporate the NRC hold-points authorized by the Licensing Board's April 30, 1982 Memorandum and Order is unnecessary. Those hold-points were incorporated into the construction permits by amendment, dated May 26, 1982. Accordingly, the construction permits already prohibit CPGCo from performing the following activities without "explicit prior approval" from the staff:

- (a) any placing, compacting, excavating, or drilling soils materials around safety-related structures and systems;
- (b) physical implementation of remedial action for correction of soils-related problems under and around safety-related structures and systems, including but not limited to:
 - (i) dewatering systems
 - (ii) underpinning and service water building
 - (iii) removal and replacement of fill beneath the feedwater isolation valve pit areas, auxiliary building electrical penetration areas and control tower, and beneath the turbine building
 - (iv) placing of underpinning supports beneath any of the structures listed in (iii) above
 - (v) compaction and loading activities;
- (c) construction work in soil materials under or around safety-related structures and systems such as field installation, or rebedding, of conduits and piping.

Consumers Power Company (Midland Plant, Units 1 and 2), LBP-82-35, 15 NRC 1060, 1073 (1982).

Issue 2. GAP's second request is that the NRC require a management audit of CCo's performance on the Midland project. The Staff is deferring a response to this request. We have found the CCP to be an acceptable program for the completion of construction of the Midland plant and believe that the CCP can be commenced without prejudice to a subsequent decision by the NRC to require an independent management audit. The decision on whether to require an independent management audit will be influenced by CCo's performance under the CCP. It is anticipated that the Staff will be in a position to determine whether to require a management audit within six months of the commencement of the CCP. The Staff will respond to this aspect of GAP's petition at that time.

Issue 3. In this issue, GAP requests the Commission to reject the CCP, as proposed in the June 3, 1983 revision, including the Stone & Webster (S&W) conduct the third party overview of the CCP. The focus of this issue is that the CCP should be rejected because: 1) S&W does not meet independence of a third party reviewer (page 19); 2) S&W has not submitted a minimally adequate audit proposal (pp. 18-19), and 3) there have been inadequate opportunities for public input to the NRC staff's review of S&W (pp. 19-20).

GAP argues: "under both a literal and realistic reading of the Commission's primary financial criteria, that the third party not have any direct previous involvement with the Company," (p. 19). The criteria referred to were set forth in a letter (with attachment) from Chairman Palladino to Congressmen Ottinger and Dingell, dated February 1, 1982. The criteria do not require that a proposed third party reviewer have had no previous involvement with the utility whose program it will be reviewing. Rather, the criteria require that the company, and individuals within that company who will be participating in the third party review, not be reviewing activities in which they were previously involved (p. 1 of attachment). GAP points to S&W's work as the overviewer of remedial soils work at Midland as creating a conflict were it to also serve as the overviewer of the CCP. Since the remedial soils activities are not within the scope of the CCP, the staff does not perceive any conflict under the criterion referenced by GAP.

GAP also asserts that it is "ironic" that the independence criteria were used to disqualify TERA from consideration as the overviewer under the CCP, but S&W was not disqualified on the ground of independence. Letter at 19. TERA's disqualification (see letter from Keppler (NRC) to Cook (CPCo), dated March 28, 1983, p. 3) was based on the potential for conflict that could be raised by TERA overview under the CCP of determinations that TERA had previously made under the Independent Design and Construction Verification Program (IDCVP) of the adequacy of the construction of the Auxiliary Feedwater System, the onsite emergency AC power supplies and the HVAC system for the control room. This relationship would appear to disqualify TERA under the Commission independence criterion discussed above.

GAP asserts that S&W has not presented a "minimally adequate audit proposal," although acknowledging that S&W has made a substantive proposal for the Construction Implementation Overview (CIO) (pp. 18-19). As described in Section 7 of the CCP, the purpose of the CIO will be to "monitor the degree of implementation success achieved, under the new program [CCP] (CCP, p. 31). The CIO will also include audits of management reviews with CPCo will undertake prior to approving segments of work under the CCP. Implementation of these work activities will not proceed until the third party overviewer has documented its satisfaction with CPCo's readiness to proceed (Id., p. 32). The CCP further provides that the CIO will overview all site construction activities, with the exception of overview of the other third party evaluations, while the CCP is in progress. The significant focus of the CIO is intended to "continue until Consumers Power and the NRC have confidence in the adequacy of the implementation of the Consumers Quality Assurance Program for the Midland Project" (Id., p.31).