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ANALYSIS
of
CONSUMERS POWER COMPANY'S
PROPOSED CONSTRUCTION COMPLETION PLAN

By the
GOVERNMENT ACCOUNTABILITY PROJECT
CITIZENS CLINIC

On behalf of the
LONE TREE COUNCIL

Presented to the
NUCLEAR REGULATORY COMMISSION
AT MIDLAND, MICHIGAN

February 8, 1983

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On behalf of the Lone Tree Council and concerned Michigan citizens and nuclear workers, the Government Accountability Project (GAP) recommends that the Nuclear Regulatory Commission (NRC or Commission):

Done
1) withhold approval of the Construction Completion Plan (CCP) proposed by Consumers Power Company (Consumers) for the Midland Nuclear Power Plant until the Commission discloses the quality assurance (QA) violations that made the CCP necessary;

Not
2) restructure the multiple proposed audits/third-party reviews into one comprehensive independent third-party review;

Not
3) require a separate public meeting to deal specifically with the specific methodology and procedures to be used in the third-party review;

Not No
4) modify the Construction Permit to maintain suspension of all safety-related work until the entire third-party review program, including but not limited to third-party selection, scope, procedures and other methodological considerations, is approved and incorporated into the Construction Permit;

No
5) request Consumers to release the new cost and projected completion date estimates; and

No
6) immediately halt the ongoing soils work until the quality assurance implementation auditor is approved.

I. BACKGROUND

The Government Accountability Project is a project of the Institute for Policy Studies (IPS), Washington, D.C. The purpose of GAP's three clinics -- Federal Government Clinic, Citizens Clinic and Nuclear Clinic -- is to broaden the understanding of the vital role of the public employee, private citizen and nuclear worker, respectively, in preventing waste, corruption or health and safety concerns. GAP also offers legal and strategic counsel to whistleblowers, provides a unique legal education for law student interns, brings meaningful and significant reform to the government workplace, and exposes government actions that are repressive, wasteful or illegal, or that pose a threat to the health and safety of the American public. Presently, GAP provides a

program of multi-level assistance for government employees, citizens and corporate employees who report illegal, wasteful or improper actions. GAP also regularly monitors governmental reforms, offers expertise to Executive Branch offices and agencies, and state and local governmental bodies, and responds to requests by Congress and state legislatures for analysis of legislation to make government more accountable to the public.

In March 1982, GAP's Citizens Clinic became actively involved with the Midland Nuclear Power Plant. The Lone Tree Council asked GAP to pursue allegations from workers of major problems at the Midland plant. After our preliminary investigation, we compiled six affidavits which we filed with the NRC on June 29, 1982. Since then we have filed four additional affidavits resulting from the heating/ventilation/air conditioning (HVAC) system's quality assurance breakdown revelations. We are also preparing an expanded affidavit from one of our original witnesses, Mr. E. Earl Kent, who has alleged serious welding construction problems at the Midland site. Other alarming allegations, ranging from security system breakdowns to worker safety problems, have come to our attention recently. As a result, we have expanded our investigation of the Midland plant.

In October and November 1982, GAP participated in two other public meetings at NRC offices in Bethesda, Maryland. These meetings dealt with Consumers' proposals to the NRC Staff on a soils remedial construction implementation audit and an independent review program that was to assure the Staff of construction quality and the "as-built" condition of the facility. GAP submitted its analysis of the September 17 and October 5 proposals in October 27 and November 11 letters, respectively. The GAP comments revealed substantial weaknesses in the programs, inadequate information to judge program adequacy, and basic lack of independence of the proposed main independent review contractors.

Following those meetings, the NRC Staff-- (1) rejected the Management Analysis Corporation (MAC) due to lack of independence; (2) requested that the Terra Corporation review a second safety system in its "vertical slice" plan; (3) requested expansion of the review of the "as-built" condition of the plant; and (4) failed to take a position on the Stone & Webster audit of soil underpinning work.

In late November the NRC Region III Special Section on the Midland plant completed an extensive inspection of the hardware and materials in the nuclear plant's diesel generator building. According to NRC public statements, this inspection revealed major

problems related to the quality assurance of the plant and included an extensive backlog of quality assurance/quality control documentation, inability to provide materials traceability, unqualified and/or uncertified welders, and other serious problems.

Yet, in spite of the major revelations of inadequate construction practices, in late December the NRC Staff permitted soils remedial work to begin. It is GAP's position, well known to the Staff, that this premature approval violates the June 1982 request of the Advisory Committee on Reactor Safeguards (ACRS) to NRC Chairman Nunzio Palladino. The June 8 letter further states that ACRS would defer its own "recommendation regarding operation at full power until we have had the opportunity to review the plan for an audit of plant quality...." This assessment, according to the letter, should include "... Midland's design adequacy and construction quality with emphasis on installed electrical, control, and mechanical equipment as well as piping and foundation... design and construction problems, their disposition, and the overall effectiveness of the effort to assure appropriate quality."

Finally, in the past two months GAP has continued its attempt to determine the seriousness of the situation and the adequacy of proposed solutions for the Midland plant. Our efforts at working with the Office of Inspection and Enforcement (IE) and Office of Investigation (OI) staffs have been frustrating. For example, although NRC letters and public presentations responding to GAP's October 22 and November 11 requests were informative, they failed to provide the key methodology necessary to assess the adequacy of the program. When GAP investigators attempted to pursue the questions at the public meeting, they were told "to allow the NRC time to ask for those documents," (NRC Public Meeting, Bethesda, Maryland, November 5, 1982.) Subsequently, GAP repeated the request in its November 11 letter. Over two-and-one-half months after the original request, GAP finally received the NRC's response: "You may wish to request access to the documents from Consumers Power." (December 14, 1982 letter from James G. Keppler to Billie Garde.)

It is clear that the NRC Staff plans to evade or ignore public requests for the minimum information necessary to complete a responsible review of the proposed independent audit.

Our experiences at the William H. Zimmer plant in Ohio and at the LaSalle plant in Illinois have led us to be extremely skeptical of the NRC Staff's conclusions about the safety of nuclear power plants. In those cases the Staff either deliberately covered up or

Disagree w/ NRC conclusions

missed major QA violations at plants 97% and 100% complete, respectively. To illustrate, after the Staff virtually ignored GAP analysis and granted approval for full power operations at LaSalle, the plant was able to operate for less than 24 hours before being shutdown due to a hardware breakdown. At Zimmer, the Staff-approved Quality Confirmation Plan was so ineffective that on November 12, 1982 the Commission suspended all safety-related construction.

As a result, there is no basis for confidence in an NRC-approved CCP on faith. The basis for this extraordinary remedy must be full disclosed, as well as the methodology for an independent review. In order to accomplish this goal, the Regional Administrator should be suspending all construction until the above recommendations (infra, at 1) are incorporated into the Construction Permit.

II. GROUND FOR SUSPENSION OF A CONSTRUCTION PERMIT

A. Legal Requirements

The law gives the Commission broad discretion to revoke, suspend or modify the construction permit of an NRC licensee. 42 U.S.C. §2236 states that:

A license or construction permit may be revoked, suspended or modified in whole or in part, for any material false statement in the application for license or in the supplemental or other statement of fact required by the applicant; or because of conditions revealed by the application for license or statement of fact or any report, record, inspection, or other means which would warrant the Commission to refuse to grant a license on an original application; or for failure to construct or operate a facility in accordance with the terms of the construction permit or license or the technical specifications in the application; or for the violation of or failure to observe any of the terms and provisions of this chapter or of any regulation of the Commission.

Part 50.100 of Title 10 of the Code of Federal Regulations states the same criteria for the revocation, suspension or modification of a construction permit.

The NRC has a mandatory duty to exercise this authority when necessary. According to the decision in Natural Resources Defense Council v. U.S. Nuclear Regulatory Commission, 582 F.2d 166 (2nd Cir. 1978), under the Atomic Energy Act of 1954, the NRC is required to determine that there will be adequate protection of the health and safety of the public. The issue of safety must be resolved before the Commission issues a construction permit. (Porter Cty. Ch. of Izaak Walton League v. Atomic Energy Commission, 515 F.2d

513, 524 (7th Cir. 1975).)

B. Criteria to Exercise Discretion

According to 10 C.F.R. §2.202, the NRC "may institute a proceeding to modify, suspend, or revoke a license or for such other action as may be proper by serving on the licensee an order to show cause which will: (1) allege the violations with which the licensee is charged, or the potentially hazardous conditions or other facts deemed to be sufficient ground for the proposed action." As interpreted by the Proposed General Statement of Policy and Procedure for Enforcement Actions, published in the Federal Register, 44 Fed. Reg. 66754, Oct. 7, 1980 (10 C.F.R. §§2.202, 2.204), suspending orders can be used to remove a threat to the public health and safety, the common defense and security or the environment. More specifically, suspension orders can be issued to stop facility construction when further work would preclude or significantly hinder the identification and correction of an improperly constructed safety-related system or component; or if the licensee's quality assurance program implementation is not adequate and effective to provide confidence that construction activities are being properly carried out. Moreover, orders can be issued when the licensee has not responded adequately to other enforcement action or when the licensee interferes with the conduct of an inspection or investigation or for any reason not mentioned above for which license revocation is legally authorized. In order to help determine the significance of violations within this list, the Commission established "severity categories" ranging from the most fundamental structural flaws (Severity I), to minor technicalities (Severity VI). 44 Fed. Reg. at 66758-59.

Region III's enforcement criteria are consistent with these guidelines. For example, in a February 26, 1981 meeting on the Zimmer plant, Regional Administrator Keppler explained that if there is faulty construction and the program to control the problem is inadequate, there is no choice but to stop the project. This criterion was illustrated through the example of an across-the-board breakdown in a quality assurance program. (February 26, 1981 Transcript of Taped Meeting Between Members of the Region III Staff and Representative of the Government Accountability Project and Mr. Thomas Applegate, at 127, 129.)

C. Specific Bases for Suspension

The Region III Staff has characterized the problems at Midland as both extremely serious and directly relating to a quality assurance breakdown. (Detroit Free Press,

December 5, 1982.)

In light of two previous amendments to Mr. Keppler's testimony before the Atomic Safety and Licensing Board and a pending third revision, it is apparent that the only course of action available to the NRC is to modify the construction permit now, before construction resumes.

1. Safety-related defects

GAP's review of inspection reports, interviews with nuclear workers, and review of the ASLB hearing testimony reveals an historical pattern of increasingly significant safety-related problems at Midland, including failures to comply with the law and NRC regulations, as well as to correct past non-compliances.

Although the GAP investigation and analysis of NRC records is far from complete, significant threats to the safety of the Midland plant include the following:

a. Welder qualification

10 C.F.R. 50, Appendix B, Criterion IX requires--

Measures shall be established to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements.

At Midland welder qualification problems are well known to the public. On December 2, 1982 Consumers laid off all of the welders of the Zack Company. They were trained by a vendor, Photon Testing, that was not NRC-approved. Although Consumers has publicly characterized this as "only a paper work problem" (Norman Saari to local NBC Channel 5 television, January 1982), it remains a serious unanswered question about the Midland plant. Until the public knows the extent of "uncertified/unqualified welders, it is virtually impossible to determine the adequacy of any plan -- short of a 100% reinspection of all unqualified welds performed by welders whose qualifications have not been verified.

2. Documentation and care of welding equipment

As seen above, Criterion IX requires careful verified maintenance of welding equipment. For example, portable ovens, or "caddies," must be plugged in at all times, except during transport to and from the rod shack. Affidavits submitted by GAP in June reveal serious problems with welding equipment, welding rods, and a failure to comply

with either professional codes or NRC requirements.

In fact, the NRC's own report into the initial Zack allegations confirmed that the welding rods had not been adequately controlled by attendants. Attendants did not even know that the weld rods were to be heated. At least one caddy was slightly warm and another "relatively cold." The ovens apparently had been unplugged for "quite a while." The QC inspector also found welding equipment that was uncalibrated.*/

3. Inadequate corrective action for welding violations

Of course, once violations are identified, the utility is legally obligated to correct them. 10 C.F.R. 50, Appendix B, Criterion XVI, requires, in part--

Measures shall be established to assure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

It is all too clear that Consumers did not take seriously the \$38,000 fine for identified Zack deficiencies or the order to ensure compliance with the law. The December 1982 Zack welder lay-off may be prophetic of what the public can expect if Consumers is put in charge of the plant's completion.

4. Electrical cables

10 C.F.R. 50, Appendix B, Criterion XV requires--

Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include, as appropriate, procedures for identification, documentation, segregation, disposition, and notification to affected organizations. Nonconforming items shall be reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.

GAP witnesses revealed widespread inaccuracies in the use of electrical cables critical to safe operation of the plant, and shutdown in case of an accident. In September 1982 the NRC ordered 100% reinspection of all cables on site. Currently, the public has no idea how many nonconforming cables are being found on site. Witnesses inside the plant have reported to GAP that only a small percentage of those discovered are being

*/NRC Region III investigation into allegations of Mr. Dean Darty, March 1979.

reported. In one affidavit, a witness reported that others have been replaced without documentation.

The violations summarized above provide only a few examples of the suspect safety components at Midland. Other whistleblowing disclosures to Region III referred to welding standards below ASME specifications; undersized welds; anchor bolts improperly installed; excessive weight on electrical conduits; hollow walls; corrosion in the small bore piping; unapproved design modifications; and other safety defects.

Even if management systems and security measures were sound, the physical deficiencies already documented at Midland justify a suspension of construction. Before permitting work to continue, the Commission should thoroughly assess the damage through independent tests; monitor the results of a comprehensive, independent audits; and modify the construction permit to include the changes.

D. Quality Assurance

A licensee's quality assurance program is its internal structure of checks and balances to guarantee safe operations. Every applicant for a construction permit is required by the provisions of 10 C.F.R. §50.34 to include in its preliminary safety analysis report a description of the quality assurance program to be applied to the design, fabrication, construction and testing of the structures, systems and components of the facility. Quality assurance comprises all those planned and systematic actions necessary to provide adequate confidence that a structure, system or component will perform satisfactorily in service. Each structure, system or component must be documented, inspected and periodically audited to verify compliance with all aspects of the quality assurance program.

The cause of the safety defects described above is an inadequate quality assurance program, which has been in shambles for a decade. In fact, in 1973 the original Midland licensing appeal board members felt so strongly about QA violations that the Director of Regulations pointed out that even though the Appeals Board could not take action on the IE findings--

[H]ad the construction permit proceeding still been before our Board at the time that the results of the November 6-8 inspection were announced, it is a virtual certainty that we would have ordered forthwith a cessation of all construction activities....

(November 26, 1973 Letter from L. Manning Muntzing, Director of Regulations, re: Quality Assurance Deficiencies Encountered at Midland Facility, p. 2.)

The 1973 warning should have served as notice to both Bechtel and Consumers Power to resolve their QA problems. Quite the contrary, however, they ignored the notice. So did the NRC Staff! The QA problems at Midland continued unabated.

Both the 1979 and 1980 Systematic Assessment of Licensee Performance (SALP) reports give notice of further and expanded problems at Midland. The problems identified then (lack of qualifications of QC inspectors, continuation of work prior to corrective action) are similar to those cited as causes in the recent stop-work order. The reports also included acknowledgements of excessive QA backlogs and lack of timeliness. (SALP Report 1980.) Consumers' failure to learn from its mistakes passed the stage of accidental oversight long ago.

The lack of quality assurance at Midland has been a continuous concern to Region III. In the spring of 1982 at the release of the 1981 SALP rating, Mr. Keppler publicly reported that it was necessary to change previous testimony before the ASLB which had provided a "reasonable assurance" that the plant would be constructed in accordance with nuclear construction regulations. The revised testimony was submitted October 27, 1982. Although the original testimony was not modified substantially, it is clear that QA problems at Midland are unresolved.

Unfortunately, the Region III Staff seems satisfied with the basis upon which the Construction Completion Plan is developed: put Consumers in charge of the program.

The public already has had an opportunity to preview the results of Consumers' internal policy with the Zack debacle over the past three years. Its performance has been disappointing, at most.

Although the NRC fined Consumers \$38,000 for Zack's non-compliance with federal regulations and forced a major QA reorganization, further actions by the utility revealed a determination to hide problems -- regardless of the consequences. In fact, a December 22, 1982 NRC report about the revelations of a quality assurance breakdown at Zack headquarters acknowledges the role that Consumers played in the response to the 1979 citation:

On September 2, 1981, the services of a Senior Quality Assurance Engineer from Project Assistance Corporation (consultants) were retained by Consumers Power Company for assignment at Zack for the purposes of establishing a formal document control system and performing an indepth review of the conditions described by Zack in their September letter (Zack notified Consumers of [a] 10 CFR 50.55(e) on August 28, 1981).

Consumers Power Company, unlike the two other utilities receiving materials from Zack, did not notify the NRC about the major problems in QA documentations. Those problems included falsified and altered documentation.

This example of the utility's response to the discovery of any major problems completely undermines the assumption upon which the Construction Completion Plan is based -- voluntary disclosure of QA violations. This assumption is both historically inaccurate and structurally flawed.

D. Maximizing Human Errors

"Human error" recently has been recognized as the Achilles Heel of even the most well-constructed plants. At Midland the phrase "comedy of human errors" would be more appropriate if the potential consequences were not so disastrous.

A key cause of human error is intoxication, which the NRC recognized last summer in proposed fitness-for-duty regulations. Our disclosures have reported widespread drunkenness on the job. Witness after witness has confirmed the routine of red-eyed employees who did their work under the handicap of an alcoholic stupor. Witnesses have also confirmed the frequent use of marijuana and stronger drugs. Intoxication weakens the capacity to install safety components, just as it debilitates the ability to drive or to engage in almost any other activity. At a minimum, the widespread use of drugs and liquor on-the-job increases the significance of a superficial quality control program. There are likely to be more defects! A nuclear plant constructed by drunken employees is likely to stagger into an accident.

III. RESTRUCTURE THE MULTIPLE AUDIT/THIRD-PARTY REVIEWS INTO ONE COMPREHENSIVE, INDEPENDENT REVIEW

In October and November 1982, two meetings were held to review Consumers proposed resolution for major quality assurance problems. These proposals and subsequent comments provided by GAP were made prior to completion of the major NRC inspection in November. Presumably, the audit suggested in the Construction Completion Plan (see CCP, at 16 and Figure 1.1) will incorporate those audits already discussed last fall. However, the CCP as proposed fails to resolve basic third-party review questions.

The CCP states: "This section describes third party evaluations that have been performed and are planned to assess the effectiveness of design and construction activity implementation." Yet, closer scrutiny of the proposal shows that it fails to include even the most basic information about the promised third-party review. In fact, although the CCP states that an INPO evaluation has been completed, there is no indication of what that report revealed.

Most significant, the entire CCP is premature until all the third parties eventually chosen have completed their evaluations. The point of the third-party reviews is to define the QA violations and deficiencies at Midland. By rushing into the CCP before that process has begun in some areas, the utility is putting the cart before the horse. In effect, the utility's CCP is competing with the third-party program. At best, the two "reforms" will be operating simultaneously, stumbling over each other. Depending on the results of the outside reviews, CCP work may have to be redone -- consistent with the costly tradition at Midland of doing the same work over and over.

A. The INPO Construction Evaluation

This evaluation is limited by definition. It is only a "self-initiated evaluation." Neither the NRC nor GAP found the Management Analysis Corporation (MAC) adequately independent to provide a truly independent review of the problems at Midland. In fact, they have been involved in at least two other major audits of the plant -- neither of which turned up any of the significant construction deficiencies now facing Consumers.

A December 14, 1982 Region III letter to GAP underscored the NRC position on MAC:

The INPO and biennial QA audit are not an acceptable substitute for the third party review. ... Questions were raised concerning whether Management Analysis Company was sufficiently independent to assume lead responsibility for the independent review.

Although the MAC analysis may have provided a tool for Consumers to judge the quality of the plant, it simply is not an independent third-party evaluation. Instead, it was a test of INPO's ability to assess the "as-built" condition of the plant. Its adequacy is completely unknown, because the public does not even know if the INPO evaluation discovered the same flaws that the NRC found in its inspection.

B. The Independent Construction Overview

This is the "meat" of the third-party review plan, yet it remains an ambiguous promise from Consumers to the NRC. Although the schedule (CCP, at 18) indicates that the scope has been defined and the consultant selected, this information has not yet been shared with the public. Until and unless the scope of the third-party review has been defined and the audit contractor selected, it is premature to make any judgments on the role and adequacy of the third-party review. Further, it is clearly inappropriate to indicate that a legitimate third-party review has been in place from the beginning of this reform effort, as Figure 1-1 suggests.

At Diablo Canyon the Commission set out very clear criteria by which an independent auditor would be chosen. ^{*/} At Zimmer GAP and the NRC are currently embroiled in a debate over the application of these guidelines in the selection of Bechtel for that role.

At Midland we again request that the NRC reestablish the fading legitimacy of the Commission's third-party reform efforts by requiring Consumers to provide the details of the selection process, the identification of the third party and the methodology by which it will accomplish its review.

We are alarmed that even in the sketchy details provided in the CCP, the proposed third-party review is only to be conducted for six months, "top management" will determine "what modification, if any, should be made to the consultant's scope of work." At a minimum, the NRC should recognize that any Construction Completion Plan must be based on the results of completed third-party findings, as well as an ongoing commitment for the duration of the project. The third-party review program must provide a comprehensive view of the as-built condition of the plant, and an independent assessment of all future construction. Nothing less will provide the public with any assurance that the Midland plant can operate safely.

^{*/} In a letter of February 1, 1982, Chairman Palladino explained to Congressmen Dingell and Ottinger the criteria according to which an independent auditor would be chosen at Diablo Canyon:

(1) Competence: Competence must be based on knowledge of and experience with the matters under review.

(2) Independence: "Independence means that the individuals or companies selected must be able to provide an objective, dispassionate technical judgment, provided solely on the basis of technical merit. Independence also means that the design verification program must be conducted by companies or individuals not previously involved with the activities...they will now be reviewing."

(3) Integrity: "Their integrity must be such that they are regarded as respectable companies or individuals."

C. The Independent Design Verification (IDV)

The Tera Corporation already is conducting the "vertical slice" of the project. Because the auxiliary feedwater system selected by Tera has already been the subject of numerous audits, GAP suggested that it is not representative of potential problems at Midland. The NRC agreed and required Tera to review a second system.

Although that system has not yet been selected, we understand that Consumers has nominated three systems for review, of which one will be chosen by the NRC. Since October 22, GAP has recommended that the second system should be a safety system with a history of QA violations. Specifically GAP suggested the HVAC system. Certainly if the CCP's third-party review is to determine the plant's safety, it should be able to account for the most troubled systems.

In Mr. Keppler's October 12, 1982 letter to Billie Garde, he agreed with that position:

My decision regarding the independent audit of Zack work at Midland will be based on findings of [NRC inspections] and the licensee's third party independent assessments.

* * * * *

The fragmented and overlapping approach of the NRC, the utility and the "independent" auditors is self-defeating. It must stop, if Midland is to progress from a theoretical design to an operating plant. A truly independent, objective review must first be completed. Only then can a CCP begin to operate legitimately, with ongoing oversight from the outside auditors and the NRC.

IV. REJECT CONSUMERS' CONSTRUCTION COMPLETION PLAN

On April 8, 1981 Region III management overruled its investigative staff's recommendations to suspend construction at the William H. Zimmer Nuclear Power Station near Cincinnati, Ohio. Instead, the NRC issued an Immediate Action Letter which, inter alia, required the Cincinnati Gas & Electric Company to develop a Quality Confirmation Program (QCP). On November 12, 1982 the utter failure of the QCP forced the Commissioners to suspend all safety-related construction at Zimmer. Unfortunately, the Construction

Completion Plan proposed for Midland bears a striking resemblance to the key flaws that doomed the QCP. In some cases, the CCP exacerbates the painful mistakes of Zimmer.

More specifically, the Construction Completion Plan-- (a) is permeated by an inherent conflict-of-interest; (b) institutionalizes a lack of organizational freedom for the quality assurance department; (c) fails to specify inspection procedures and evaluation criteria; and (d) is not comprehensive.

A. Inherent Conflict of Interest

The foundation of the CCP is to complete "integration of the Bechtel QC function into the Midland Project Quality Assurance Department (MPQAD) under Consumers Power Company management. . . ." (CCP Executive Summary, at 3.)

Since Consumers has always played a significant role in the MPOAD, in effect the "reform" calls for the utility to second-guess its own previous decisions. This is the equivalent of the fox offering to do a better job of guarding the henhouse. If anything, the CCP intensifies the conflicts of interest in the QCP. At Zimmer the utility only imposed quality assurance violations clandestinely; at Midland the utility has openly participated in decisions to break the law.

B. Lack of Organizational Freedom for the Quality Assurance Department

The organizational premise of the CCP is a "team" concept that integrates construction, engineering and quality assurance personnel. The "team members will be physically located together to the extent practicable. . . ." Although the proposal does not specify the identity of Team Supervisors, there is only one MPQAD representative among six specified in the plan. (CCP, at 8.)

The CCP supposedly is the reform to compensate for a quality assurance breakdown. Unfortunately, the plan would violate the criteria of 10 C.F.R. 50, Appendix B, Criterion I even for a healthy nuclear construction organization. The regulations require organizational freedom for QA functions. The QA department is required by law to serve as an independent check and balance on the construction program. The CCP turns that premise on its head by reducing QA representatives to a token minority on construction-dominated "teams."

C. Failure to Specify Inspection Procedures and Evaluation Criteria

The proposal promises to develop and revise the procedures that will be used to conduct the reinspections. (CCP, at 8-9, 12.) Neither the procedures nor the evaluation criteria for the inspections are specified, beyond vague references to professional codes. This issue is the heart of the quality verification program. Unfortunately, at present the methodology of the program is a mystery. As a result, it is impossible to judge whether the CCP will represent a thorough reinspection or a superficial skimming. Further, the necessity to establish new QC procedures casts a shadow over all the current inspection procedures.

D. Lack of Comprehensiveness

CCP reinspections will only cover "accessible" completed construction, an undefined term. "Inaccessible" items will be handled by paperwork reviews. (CCP, at 10.) Further, the proposal defines-out from coverage "[t]hose activities that have demonstrated effectiveness in the Quality Program implementation...." (Id., at 20.) Included in this latter category are activities such as "HVAC Installation work being performed by Zack Company," and "[r]emedial [s]oils work which is proceeding as authorized by NRC."

This piecemeal approach effectively surrenders any pretensions that the CCP will provide a definitive answer to the Midland QA problems, even if the program were otherwise legitimate. To illustrate, the necessity for the reinspections in the first place is the inaccuracy of current quality records. Paperwork reviews will not contribute anything new.

The list of systems that have "demonstrated" quality effectiveness suggests the utility has completely lost touch with reality, or expects that the NRC Staff and the public have taken leave of their senses. Both the Zack HVAC and soils remedial work have been among the most scandal-ridden embarrassments of the Midland project. The crude deficiencies and violations have led to fines, multiple criminal investigations, and public humiliation for Consumers. The utility has only been able to continue soils remedial work by manipulating the public hearing process to circumvent NRC Staff enforcement orders. The list of "proven" systems proves only that Consumers is determined to impose the same nightmare on Midland that the Quality Confirmation Program represented at Zimmer. Hopefully, the NRC Staff will not be fooled again.

D. Flaws in the CCP Program Implementation and Quality Program Review

By their terms, Section 5 (Program Implementation) and Section 6 (Quality Program Review) indicate that the CCP simply reflects the "status quo" attitude of Midland's management that propelled Consumers into this particular construction/regulation nightmare in the first place.

Although the CCP proposal is premature, inadequate, and fatally flawed, the language of the proposal reveals that management believes the Midland plant's QA program is "basically sound" (CCP, at 15), even in the face of deliberations by legal and advisory bodies on Consumers' ability to adequately implement any QA plan, no matter how sound.

The amount of management influence and interference has already been a subject of NRC concern. (See NRC Memorandum from C. E. Norelius and R. L. Spessard to James E. Keppler, June 21, 1982.) Yet, the CCP proposes as an answer to increase management involvement at every step of the implementation process (CCP, at 13-15). Further, the implementation fails to refer to how the inevitable conflicts between management officials watching the calendar and conscientious QA officials trying to do their jobs will be resolved.

The only clue that GAP has as to how Consumers plans to change the mindset of its demoralized workers is the Quality Improvement Plan (QIP) mentioned extensively in the fall proposals. This plan, referred to as the catalyst for ensuring new commitment and compliance to quality standards on the Midland site, is, according to the NRC officials familiar with it, an incentive-bonus concept for construction workers who "do the job right the first time." (NRC-GAP Telephone Conversation, January 27, 1983.) Like the Bechtel cost-plus contract, the Quality Improvement Plan is a series of rewards for doing the same job a worker was hired to do right in the first place. A quality improvement plan that bases critical construction adequacy on "prizes" given to its workers reveals a serious misunderstanding on the part of Consumers about the ultimate value of its work.

V. IMMEDIATELY HALT THE ONGOING SOILS WORK UNTIL THE QUALITY ASSURANCE IMPLEMENTATION AUDITOR IS APPROVED

Two significant milestones in the soils work have now been approved to proceed underneath the turbine building. This Staff approval is entirely inappropriate given the legal and advisory controversy over this operation. It is inexcusable to allow work to

proceed without the independent audit upon which Mr. Keppler based his "reasonable assurance" testimony (October 27, 1982 Testimony to the Midland ASLB), and upon which the ACRS is depending to complete their own technical assessment before granting a full power license. Further, in light of administrative hearings which cover the adequacy of the soils quality assurance implementation (OM Proceedings), the NRC Staff approval is an insult to the court and to the citizen intervenors struggling to achieve a measure of fairness in the proceeding.

GAP's view on Stone & Webster, the proposed third-party for QA implementation audit, is documented in our October 22, 1982 letter. As an update and summary we believe that Stone & Webster meets only one of the three criteria for a legitimate third party. Yes, Stone & Webster has demonstrated economic independence from Consumers, disclosing other minor construction contracts with Consumers as well as their financial independence. But, Stone & Webster has not demonstrated its competence. Its long history of nuclear plant construction includes massive cost overruns, major Quality Control problems, significant design errors and poor construction management. Further, Stone & Webster's corporate integrity remains the subject of much skepticism, particularly in light of its six-month involvement on the Midland site without NRC approval of their work.

However, if the NRC is going to approve Stone & Webster -- as seems obvious -- and hold it responsible under 10 C.F.R. Part 21 for reporting violations or QA failures, then the Region should so. Someone other than Consumers must watch the QA implementation of critical soils work.

VI. ENCOURAGE CONSUMERS TO RELEASE THE NEW COST ESTIMATE AND PROJECTED COMPLETION DATE INFORMATION

Although neither cost nor scheduling is an NRC concern, both are critical concerns of the residents of Central Michigan who must constantly balance the risks and costs of this nuclear plant. If public confidence is ever to be restored in the Midland facility, it will come after Consumers demonstrates candor and openness with the public. It would benefit everyone to have the yoke of the December 1984 "on-line target date" removed as

soon as possible from the necks of the nuclear workers.

Likewise, the new cost projection is unknown by local residents. GAP sources indicate a \$4-billion-plus price tag, but that was an estimate which did not include the major stop-work order in December of last year.

If the plant is ever going to be included in the Michigan rate base, Consumers should begin today to adopt a new and candid approach to all of its problems. Public trust simply cannot be restored on anything less than honest admissions.

VII. CONCLUSION

There are too many questions about the Midland Nuclear Power Plant left unanswered at this time. These questions are forming the basis for growing public skepticism about the NRC's ability or willingness to regulate nuclear power. In Central Michigan this uneasiness and distrust have led previously inactive citizens and local government bodies to become involved in their own protection. The citizens' desire to be informed about the ultimate safety of the Midland plant led them to request assistance from the Citizens Clinic of the Government Accountability Project. Our investigation into worker allegations and analysis of the situation confirms the needs for a comprehensive answer.

Midland needs a verification program implemented by a truly independent company with no stake in the outcome of its audit. This independent third party is not serving a client's requirements, but rather the public interest in ensuring the quality of construction at the plant. That third party must be accountable only to the NRC and the public.

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