

# GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies  
1901 Que Street, N.W., Washington, D.C. 20009

(202) 234-9382

September 6, 1982.

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Mr. James Keppler  
Director, Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

As you know, the Citizens Clinic for Accountable Government of the Government Accountability Project ("GAP"), the Institute for Policy Studies, has adopted the Midland case. GAP investigators have completed an intensive two-part investigation into worker allegations on the Midland site. Further, Citizens Clinic staff have worked closely with citizens, local and state leaders, and organizations to determine the level of anxiety and public opinion about the Midland plant. Our findings have confirmed that the plant qualifies for its position as one of the five worst in the nation.

In June of this year I was impressed by your announcement of plans to begin a special investigation team to deal with Midland's intense problems. In a conversation with Mr. Norelius in May, 1982 concerning our Midland investigation I requested the opportunity to provide input into the planning of that special investigation team. Much has happened since June 29 when GAP submitted the original set of six allegations to your office. Unfortunately, the arrival of the promised special investigation team has not been one of those happenings.

Admittedly, both GAP and Region III have had an intense workload in the past two months. However, a number of developments recently are of great concern to our clients and the Project. I am taking the liberty of addressing these in this letter, as well as a number of administrative matters. I look forward to your clarification and/or response.

## I. The Zack Corporation as regards the Midland Nuclear Power Station

Although your office has expended a great deal of time on the problems identified in the Heating, Ventilating and Air Conditioning ("HVAC") system at the LaSalle plant, I am not aware of any ongoing efforts at the Midland site. I am aware that Commonwealth Edison's situation at LaSalle has been a priority item in the three-plant examination. It is, however, no longer justifiable to delay an investigation into the actions by Consumers Power Company's Midland Project Quality Assurance Department ("MPQAD").

The facts in the Midland case reiterate the lessons of our experiences at Zimmer and LaSalle. MPQAD is not an effective substitute for a strong NRC inspection program; instead, as Mr. Terry Howard and the Zack QA Department

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September 6, 1982

discovered, MPQAD is worthless in protecting workers.

If there had ever been a second thought in your mind as to the Consumers Power Company drive to have Midland meet its Dow Chemical deadline, regardless of the bigger price tag it may have for public health and safety, the Zack incident should have sealed your conclusions. Not only was Consumers Power painfully aware of the Zack QA breakdown after Mr. Dean Dartey exposed the Zack deficiencies in 1980, they were the first utility of the three affected to be contacted, having an entire month longer than Commonwealth Edison and Illinois Power and Light.

Consumers Power also participated directly in the manipulation of the QA breakdown by supplying an employee, Mr. Howard McGrane, to perform an intensive audit. This is a sickening example of manipulating the regulatory process to serve the utility. I am deeply disappointed that you have not taken the initiative to take appropriate action at the Midland site.

At a recent meeting with Commonwealth Edison over their future handling of the Zack allegations, you imposed a third-party audit because you indicated that the public has lost confidence in ComEd's ability to give open unbiased information to either the NRC or the public about problems. Consumers Power's credibility was destroyed long before the latest Zack incident. This latest event only confirms the public's mistrust of a utility caught in a "Catch 22" contract. (Attachment 1, at 9.) If the situation at Midland was historical in nature, I would defer this letter to a later date. Unfortunately, the luxury of extra time at Midland has run out. According to our sources, conditions at Midland deteriorate daily.

## II. The Systematic Appraisal of Licensee Performance ("SALP") rating debate

Consumers Power Company has been quite demonstrative toward your office in regards to the 1981 SALP ratings they received. It appears that Consumers' intent is to keep both regulators and public interest groups as busy as possible in defensive positions. Although I have a deep appreciation for their need to do so, nevertheless it does nothing toward either improving or guaranteeing the construction quality at Midland.

The recent meeting held on the SALP rating debate certainly did nothing to improve the construction quality at Midland, nor encourage utility spokespersons to cease their bantering about the deserved low SALP ratings. Even the local paper took exception to the NRC's focus on the SALP debate. (Attachment 2.) It is our position that the SALP rating in support systems, VI, was totally inaccurate and far too generous. Zack never improved their QA program. They merely agreed to transfer the paperwork responsibility to the utility, which has an even greater vested interest in the outcome of the monitoring of Zack's work. In fact, the bottomline in the Zack incident on the Midland site comes down to questions that Region III has not yet asked:

- 1) Why didn't Consumers Power report the Zack QA breakdown to the NRC in the fall of 1981?
- 2) When did the Zack problems become apparent to the NRC (Regional or on-site) following the Dartey investigations? Under what circumstances?
- 3) Will the independent audit apply to Midland also? If not, why? If it does, under what arrangements?

III. The recent meeting between Mr. Earl Kent, former Midland worker, and Mr. James Foster, NRC Investigator

Mr. Earl Kent recently contacted me with concerns about the status of the investigation into his allegations about the Midland Nuclear Power Station. His concerns are well founded and I have agreed to contact you directly concerning the Midland investigation. This letter represents the joint comments of Mr. Kent and myself.

Mr. Kent has an impressive and credible background. He has been a welder for almost two decades, rising to a position of respect and confidence among his professional peers. His information is iron-clad. Two months ago, he and three other workers submitted affidavits on Midland. Last week Mr. Kent made a personal trip to the Glen Ellyn office<sup>2</sup> to check on the status of the investigation into his allegations. What he discovered shocked him. It does not shock me -- I wish it did.

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8/12/82

3 Mr. Kent met with Mr. James Foster. The meeting was taped. During the <sup>4</sup>14-hour <sup>2HR</sup> meeting, Mr. Kent detailed the inherent welding problems at Midland. He detailed <sup>20 min.</sup> with diagrams extensive problems with fillet welds and described the inspection errors. He explained that his affidavit to GAP was only an overview of the problems at Midland and that he was anxious to give explicit details -- about Midland, Palisades and the San Onofre plants he had worked on. However, he was told that it would be months before he was recontacted, and only to answer specific questions that might arise. It is intolerable and inexcusable for Region III to continue to deal with nuclear witnesses as distant observers.

Mr. Kent volunteered to point out to the NRC on the site the areas where the welding problems were most extensive. Yet, he was told that nuclear witnesses can't go on the construction site to identify the problems. An incredulous statement in the light of the LaSalle worker tours and the involvement of Mr. Howard and Ms. Mareello in the Zack investigation. Finally he was told that Region III would get to Midland when it had time.

Mr. Keppler, if Region III doesn't have time for Midland now, it will be necessary to have enough time for another Zimmer later. I am not challenging your priorities for the past two months. But Midland's problems have to be addressed, promptly and effectively, and I was deeply distressed at the comments I learned from Mr. Kent.

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September 6, 1982

I urge you to personally listen to the tapes of the conversation between Mr. Foster and Mr. Kent at your earliest convenience. It appears to both Mr. Devine and myself, as well as to Mr. Kent, that an independent-audit of the welding problems will be mandatory.

Mr. Kent, as you know, has remained relatively discreet in his public allegations. He is one of those protected by your confidentiality agreement. In keeping with that, we request you consider this information under his file, or remove his name and any identifying information from it before releasing it. Further, I have included a copy of Mr. Kent's amended notarized affidavit which he said Mr. Foster did not have. (Attachment 3.)

#### IV. Bechtel's secrecy agreement

As I have indicated to you previously, we have encountered a larger amount of intimidation on the part of nuclear workers at the Midland site. This "intimidation," unlike that encountered at Zimmer, is apparently a result of a serious misunderstanding between Bechtel's employees and outside interests in the safety of the Midland Nuclear Power Plant.

In researching the problem of workers being fearful of talking to any outsider, whether your agency representatives, GAP, or the press, we discovered that they overwhelmingly believed they could be sued by Bechtel on "breach of contract." This situation has extreme ramifications for the premise of 10 C.F.R. 19 that guarantees protection for and, in fact, requires workers to report safety defects.

I understand that you are clarifying this situation. Please address the NRC's position on this Bechtel document. (Attachment 4.)

#### V. Nuclear Regulatory Commission Investigators and the Government Accountability Project

For the past two years members of the GAP staff and your own staff have worked on several nuclear cases. Recently our efforts at Zimmer and LaSalle have taken the majority of our Project's time. Understandably we are often in conflicting positions, representing those internal nuclear witnesses who did not find an effective avenue for their concerns and/or dissents. We believe this is a natural part of the "checks and balances" system of our government.

The Government Accountability Project has attempted to be cooperative and to assist your own investigators, while maintaining a commitment to the best interests of our clients. We do place the public health and safety as our highest priority. Often we must ensure confidentiality and protection for GAP's clients and other witnesses in order to convince them to deal with the government at all. I am convinced that you understand our position, and regard it professionally with the best intentions.



Mr. James Keppler

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September 6, 1982

However, it appears your best intentions may be seriously compromised if your staff fails to perceive their role as defenders of the public interest, not the utilities' timetables.

You have been anxious for us to work toward a better attitude on your efforts to improve the quality of investigations. I believe they have improved. The Zack situation was a costly, embarrassing lesson. It has placed us in a difficult position in our dealings with members of your staff. We must protect the witnesses, from poor judgments of your investigators, as well as from the utilities' vested interest. It's a position we would rather not be in.

Unfortunately, the recent reorganization of the NRC investigators has not yet been clarified. Until it has been I am unsure of where to address specific concerns raised by our clients over individual investigators.

I anticipate that the administrative reorganization will be explained shortly, and thank you ahead of time for your explanation.

\* \* \* \*

In conclusion, I reiterate both GAP's two-month old plea to get the investigative effort going on the Midland site, as well as my request for the opportunity to make input into the structure. I believe that now, more than ever, new investigators from the Office of Investigations be appointed to the Midland case.

Sincerely,



BILLIE P. GARDE

Director

Citizens Clinic for Accountable Government

BPG/mcy

Attachments - 4

STATEMENT OF BILLIE PIRNER GARDE  
CITIZENS CLINIC FOR ACCOUNTABLE GOVERNMENT

ON THE

MIDLAND NUCLEAR POWER PLANT

LANSING, MICHIGAN

June 29, 1982

Government Accountability Project  
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## I. INTRODUCTION

On behalf of the Government Accountability Project of the Institute for Policy Studies, or "GAP," and on behalf of the Lone Tree Council it is an honor and a privilege to appear before you today.

A brief description is in order of who we are, how we became involved at Midland, the events leading up to this press conference and the issues we believe the public needs to be aware of.

## II. BACKGROUND

The Government Accountability Project is a project of the Institute for Policy Studies, Washington, D.C. The purpose of its program is to broaden the understanding of the vital role of the public employee in preventing waste and corruption, to offer legal and strategic counsel to whistleblowers, to provide a unique legal education for law students, to bring meaningful and significant reform to the government workplace, and to expose government actions that are repressive, wasteful, or illegal and that pose a threat to the health and safety of the American public.

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



The Government Accountability Project also includes a Citizens Clinic for Accountable Government. The clinical program, modeled after GAP's successful Legal Clinic, would assist and instruct citizens groups and individuals who seek to uncover government misconduct, monitor government investigations or force regulatory agencies to recognize significant public health and safety dangers. It is the Citizens Clinic, with GAP Investigators, that has adopted the Midland case.

Since its inception, GAP has seen the adverse effect of misdirected government investigations on whistleblowers and communities. Large institutions that are the focus of investigation -- whether they be a public utility ignoring safety issues, government contractors bilking the taxpayers, a factory polluting a neighborhood or a government agency controlled by corrupt private interest -- will "clobber" the community or public interest groups with the conclusions of any official probe that does not clearly prove wrongdoing. An inconclusive result gets translated by public relations departments of the institution that is the subject of the probe into "total exoneration." In the wake are often left cynical, intimidated, harassed and sometimes broken victims who had the audacity to challenge a local power structure.

Public interest or community groups can sometimes reverse the result but it is an incredible uphill struggle. As word of its accomplishments has gotten out, individuals and citizen-oriented groups have sought GAP consultation. Often those requests focus on how to force local and state governments to confront major community problems, how to monitor government efforts once initiated, how to encourage agencies to take effective and appropriate action and how to turn white-washes into exposes. It is this skill that GAP and the Clinic was asked to bring to Midland.

In January, 1982, we were contacted by the Lone Tree Council of Midland, Michigan. For years, they told us, workers -- some anonymous, some named -- had been contacting their organization to talk of serious problems on the Midland site. They alleged that the citizen intervenors had similar experiences and that as the allegations become more serious they decided to seek help in directing these workers. They were referred to the Government Accountability Project by other Washington-based public interest groups.

We listened with great interest to the history of the Midland site and the massive problems facing the future of the plant. Our experiences at the Zimmer nuclear power plant in Ohio had been a sobering one. We were also aware of the fact that the Nuclear Regulatory Commission's own Office of Inspection and Auditor had labeled Midland as one of the five worse plants in the nation. We urged the Lone Tree Council to send us more information.

In March, after an extensive review of the history and an analysis of the problems at Midland, two GAP investigators went to Michigan. They talked to former workers, citizens and intervenors.

They reviewed documentation from the Nuclear Regulatory Commission, court transcripts, and testimony from public hearings. A second investigative trip was made in May, and countless hours were spent with witnesses, verification studies, and technical research.

The Clinic identified nine major areas of concern about the Midland nuclear power plant. To summarize:

1) The cost of Midland. It is 1200% over its original cost projections -- now priced at 3.39 billion dollars. That cost will be passed on to Consumer's customers when the plant is deemed "useable and useful." The Michigan Public Service Commission stands responsible to the ratepayers for this decision.

2) The soil settlement issue. Major safety related buildings have literally sunk and subsequently cracked as a result of the soils problem. The "fix" for this problem has yet to be approved by the Atomic Safety and Licensing Board of the Nuclear Regulatory Commission although repair work continues because of a legal loophole.

3) The location of the plant. Midland's nuclear power plant is located within the city limits of a town of 51,400. There are 2,000 industrial workers within one mile of the site and the cooling pond property backs up to an elementary school.

4) The environmental impact. The plant will emit extraordinary amounts of dense fog from the cooling pond in which the routine and accidental radioactive releases will be entrapped. This fog will "rainout" and "ice out" heavily populated areas. Also included is the unresolved issues of high level waste storage on site and the waste discharge into the Tittabawassee.

5) The allegations of plant workers. Midland's nuclear site workers have begun to come forward. Six sworn statements turned over to the NRC today reveal over three dozen allegations about plant safety and other related items.

6) Inadequate Nuclear Regulatory Commission oversight. A decade of giving the "benefit of the doubt" to the utility even in the face of repeated failures of the utility to live up to its promises of reformation.

7) A Quality Assurance breakdown. Repeated QA/QC program deficiencies that have led to piece meal fines, investigations, and audits since 1973. The program continues to have major structural flaws that rely on decision makers who have a built-in conflict of interest.

8) Intimidation and reprisals against workers -- ranging from workers being fired for exposing problems to being threatened for pursuing their allegations.



A "Catch 22"

9) Contract. There is no easy answer to this problem. Consumers Power Co. is under a contract to produce steam by December, 1984 for The Dow Chemical Co. If the contract is broken, so is Consumers Power Co. To assure that Midland can be built safely by a management that faces financial ruin if the deadline is not met is at best, hopelessly naive.

### III. WHISTLEBLOWER ALLEGATIONS

Since 1975 the Government Accountability Project has provided legal and other assistance to those who blow the whistle on fraud, waste, mismanagement and health and safety hazards. In fact, since 1979 we have legally represented nearly ninety such individuals. During that time we have developed a methodology that might vary in particular circumstances, but which nevertheless remains fairly consistent.

First and foremost, we do not dictate for those who bring information to us how that information will be used or where it will be taken. Those decisions are made solely by those who have obtained the information. If we are not willing to abide by the conditions imposed by the whistleblower, we will decline to use the information in any way. We are ethically bound to protect the client and to keep his or her interests very much in our mind.

If employees are afraid to risk going through the internal channels the utility has outlined, then we would indeed risk our own credibility by encouraging employees to "walk the plant" If we decide to legally represent the person who brings information forward, we would violate our own professional ethics by advising the client to use defective internal channels.

Unless we have sufficient evidence that an "open door" is truly open or an office to deal with problems does not view the whistleblower as "the problem", we will not advise employees to pursue those internal procedures.

Consumers Power Co. has indicated great distress that we are not working with their own QC/QA program with our Midland allegations. Please do not think that we have made any determinations about their quality assurance complaint procedures or system. Unfortunately, at this point we do not know enough about their organization to make a valid judgment. Some employees have expressed doubts to us. To allay their skepticism and our own reservations, we would need to hear from the employees who have tested their allegation procedures.

In fact, we respectfully requested that Consumers Power Co. allow us to speak with those who have reported problems to them publically and openly through their system. If the only employees to use the procedure are ones who have done so anonymously, we would appreciate very much if Consumers Power Co. would somehow convey to them our desire to speak with them anonymously about the allegation procedures and their experiences with them. Meanwhile, we hope they will give us some information about the types of complaints that have come through their allegation channels and what the final disposition of the alleged problems have been.

Until our own questions can be answered to our satisfaction about Consumers Power Co.'s internal procedures, we will continue to deal directly with the Regional Office of the Nuclear Regulatory Commission out of Chicago.

We will also continue to stand by and aggressively pursue protection for those workers and former workers whose information we will present to the Nuclear Regulatory Commission for investigation.

Furthermore, we will monitor the NRC's investigation into these allegations. At Zimmer, the initial NRC investigation was exposed as a "cover up" leading to a \$200,000.00 fine for the utility. We will not tolerate that again at Midland -- time lost due to an incomplete or inadequate inspection is simply a luxury that Consumers Power Co. does not have and can't afford.

#### IV. RECOMMENDATIONS FOR ACTION

We are calling for the construction to be halted until the NRC can judge the full scope of the problems at Midland. We believe this will be the most time efficient way to get a complete hold on the situation.

If this is unfeasible, GAP respectfully requests that the Office of Investigations (OI) adopt Midland, at the recommendation of Mr. Keppler, as its first case. The OI has no vested interest in covering up Midland's problems and it is composed of highly respected NRC investigators. OI is to be the "SWAT TEAM" of the NRC that was set up by and reports to the Commission directly. We look forward to their involvement in major plant site investigations. Midland would be a good place to start.

Mr. Keppler has indicated his own reservations about Midland. He has announced a special five-person team to deal with Midland's problems. This Regional reorganization should compliment the OI investigation or some other



third party audit as called for by the United States Senate recently. This Senate Bill co-signed by Senator Levin, sets aside funding for a test of an independent audit and inspection on three selected plant sites. Because we believe so strongly in "someone else" looking at Midland's problems, we would like Senator Levin and other members of the Michigan delegation to consider their role in bringing this nuclear plant under control.

#### V. SPECIFIC ALLEGATIONS

In our investigation GAP has completed seven affidavits and verification studies. These affidavits have been sent to Mr. James Keppler, Director of Region III of the NRC.

Issues included in these affidavits are listed below:

- Welding standards below ASME specifications
- Improper socket weld engagement length
- Poorly trained quality control inspectors
- Countless welds improperly inspected for years by at least one inspector
- Undersized welds
- Improperly ground down welds
- Substandards welds
- Extensive corrosion inside the small bore piping
- Unqualified welders
- Reduced specifications for welding electrodes that led to corrosion
- Anchor bolts in the battery room not meeting the specifications
- Presence of debris in small bore piping

- Substituted cables leading to the control room
- Conduit supports that exceed weight specifications
- Lack of inspection for compliance with weight specifications on conduit supports
- Improper use of type 30 conduit supports
- Non-compliance to blueprints
- Diversion of equipment for personal use
- Lack of material traceability
- Questionable anchor bolts
- Undetermined weld rod control in the past
- Alcohol and drug abuse problems among workers in safety related areas
- Theft of plant equipment
- Manufacture of belt buckles and barbecue skewers out of stainless steel and nickel
- Bechtel undermining the construction through a variety of work slow-down techniques

#### VI. GAP'S PLANS TO MONITOR NRC'S INVESTIGATION

For the past decade the NRC and Consumers Power Co. have repeatedly offered their reasonable assurances that QA/QC programs would improve. Yet, repeated failures in the design and construction of essential safety systems, as reflected in public documents, indicate the contrary.

QA and construction deficiencies continue, yet the NRC has been unwilling to enforce what could be very effective regulations to assure the safe construction of this nuclear plant. We will accept nothing but the "letter of the law" when public health and safety are concerned.

We are concerned to see a pattern of leniency that has compromised the regulatory concept. As we found at Zimmer, the NRC Region III staff gives the benefit of the doubt to the utility far too often. We believe the utility will look out for its own best interests. The NRC is paid by the taxpayers to look out for the public interest.

Some examples of this pattern of leniency include:

1. The NRC resolving "findings" only based on statements with vested interest.
2. The NRC acceptance of relaxed design and construction specifications and procedures.
3. Serious conflict of interest within investigations and inspections.
4. Continued acceptance of substandard material.
5. Few, if any, unannounced NRC inspections on site.
6. Excessive deferral to the financial hardships and time deadlines of the utility, weighed against public safety standards.

Even worse, the above structural flaws and patterns of non-compliance do not include the unacceptable potential for human error at Midland. We have yet to find a single employee witness who has denied our witnesses charges of widespread drunkenness on the job at the construction site. It is difficult enough for a sober worker to construct any nuclear power plant safely. We shudder at the consequences of drunken employees trying to cope with the handicaps at Midland.

Region III has begun to recognize the seriousness of the problems at Midland, as evidenced by Mr. Keppler's recent announcement of a special inspection team for Midland. Shoddy work has been piling up for almost a decade.



halting future violations is not good enough. Far too many witnesses have confirmed that this plant is a disaster waiting to happen. General Public Utility's \$4 billion lawsuit blaming Three Mile Island on the NRC for not regulating strictly enough illustrates the desperate consequences even for a "near-miss."

The public drew the line at Three Mile Island and Love Canal. Workers inside and citizens outside the Midland plant want to be heard. We represent their collective voices.

*Billie Pirner Garde*

Billie Pirner Garde  
Government Accountability Project

# Midland Daily News

Charles A. Spence, Publisher

John A. Palen, Editor

Norman C. Rumple, Publisher Emeritus

## NRC should focus on major concerns

Consumers Power Co. is still complaining about the latest negative SALP (Systematic Assessment of Licensee Performance) rating given by the U.S. Nuclear Regulatory Commission to the Midland nuclear plant.

The utility has a right to complain, of course. But shouldn't the manpower-short NRC be handling this matter more efficiently so it can devote more of its resources to settling some of the more serious questions about the plant?

While the Midland project is undergoing a barrage of criticism based on allegations made by former plant workers that questionable construction practices may effect the plant's safe operation, a gathering of NRC and utility officials was held in Midland Thursday to argue politely about SALP ratings the NRC has said it won't change.

Meanwhile, a promised NRC investigation into the workers' allegations still hasn't been started, nearly a month after the charges were made. The reason? The NRC says it doesn't have the manpower.

The NRC apparently can't spare the inspectors to check out the allegations, yet two inspectors were flown from Illinois to Midland for Thursday's more-or-less pointless session. Two other NRC officials flew here from Washington, D.C., and another pair arrived from

### Our view

Illinois to attend.

For its part, Consumers sent representatives from Chicago and Jackson.

Who pays when federal officials fly around the country to attend a meeting that, by the NRC's own admission, could have been handled by a telephone conference call? The taxpayers.

Robert Warnick, acting director of the NRC's Office of Special Cases and one of those a Thursday's meeting, s Midland plant has received so much public criticism that the agency felt it would be better to conduct the SALP business in a public forum.

Yet none of the points argued over in Thursday's meeting really go near the heart of concerns about the nuclear plant. Operating in the open is absolutely essential — but even so, some judgment has to be exercised about what is important and what isn't.

We think the public would have been better served had the money and effort that went into this posturing been spent on checking into the allegations about the Midland plant.

Let's ground the unnecessary flights and get the investigation on the road.

AFFIDAVIT

My name is E. Earl Kent. I am making this statement of my own free will to Mr. David Crow, who has identified himself to me as an investigator for the Government Accountability Project. I am speaking without threat, *E.K.* or promise of material benefit. My reason for making this statement is to express my deep concern over the quality of construction <sup>IN NUCLEAR WORK, ESPECIALLY *E.K.*</sup> at the Midland nuclear plant, <sup>IN MY OPINION, *E.K.*</sup> where I was terminated in March of 1982 for persistently bringing defects in construction and specifications to the attention of my superiors *AND FELLOW EMPLOYEES: *E.K.**

I have worked for seventeen years in engineering, most recently at six nuclear plants. I <sup>HELD *E.K.*</sup> ~~held~~ the title of *E.K.* Senior Quality Control Engineer for nuclear welding. I have been a member of the American Society for Quality Control, and have published several books on welding and structural steels. Before coming to Bechtel, I worked as an engineer <sup>AND SENIOR WELDING ENGINEER *E.K.*</sup> for Litton Industries, as a field *E.K.* Welding Inspector for Boyle Engineering Corporation, and as a *E.K.* Welding Supervisor <sup>AND WELDING ENGINEER *E.K.*</sup> for Fluor Engineers. I have also worked as a *E.K.* Quality Assurance *E.K.* and *E.K.* Quality Control Engineer for Joy Manufacturing. *E.K.* *E.K.* *E.K.*

I have attended more than half a dozen professional education courses on engineering and quality control. Prior to moving to the Midland plant, I had worked for Bechtel at two of its other nuclear units, Palisades *E.K.*



and San Onofre Plants One, <sup>E.K.</sup> ~~and~~ Two, <sup>AND THREE. E.K.</sup> In both of these earlier Bechtel positions, I served as Senior Quality Control Engineer. I received top recommendations from my supervisors at both these plants. There is a letter on file with Bechtel's <sup>NORWALK E.K.</sup> ~~central~~ office, from the Vice President of Bechtel's Los Angeles Power Division, for my work there.

Based on <sup>E.K.</sup> ~~only~~ my years of <sup>ENGINEERING AND E.K.</sup> experience in nuclear plants, it is my professional opinion that the Midland plant is the worst nuclear facility I have ever seen. This affidavit will detail instances where Bechtel Corporation has systematically downgraded standards for safety-related equipment, to the point where I <sup>E.K.</sup> ~~do not~~ believe that much of the construction will not withstand the stresses it should be built to take. Bechtel has hired engineers and QC inspectors who are not adequately qualified or trained for the complicated work in a modern nuclear plant. I have seen Bechtel personnel, both QC inspectors and engineers with QC responsibilities, routinely accept substandard work.

I will also give examples of the unhealthy degree of reliance that certain NRC inspectors have placed in the Bechtel personnel whom they are supposed to monitor. NRC field inspectors showed a surprising willingness to let the Bechtel personnel do all the dirty work involved in supposedly independent investigations. Because NRC inspectors often didn't themselves try to take the

measurements, or climb into less accessible areas, the inspection reports that were supposed to represent a completely separate check on Bechtel performance often wound up basing their approval on Bechtel's evaluations of its own work.

My expertise is in welding, <sup>ENGINEERING AND E.I.</sup> inspection. When I first came to Midland, in December 1981, I reviewed Bechtel's specifications and procedures. I was astonished to see that in numerous places, Bechtel had established standards which fell below those of the ASME Code. The ASME Code reflects the best judgment of the national society of professionals in this area. It is the result of many years of <sup>RESEARCH AND E.I.</sup> testing. Despite this, Bechtel in some cases made the decision, based on their own engineers' <sup>E.I.</sup> <sup>OPINIONS OR E.I.</sup> short-term testing in San Francisco, to modify these standards.

If Bechtel had made these changes only to take account of particular needs at Midland, that would be one thing. But in the area of welding, where I was qualified to judge, the new specifications were inadequate to the needs of a nuclear facility. There is an inter-office memo, dated 24 April 1981, which I <sup>HAD E.I.</sup> ~~have~~ in my files. It is between the project QC head, E. Smith, and a main office materials and quality services official, D. Hackney. The subject is socket weld engagement length. Hackney states that as long as the pipe is not withdrawn from the fitting it will be approved. This means that a gap of nearly any length will be tolerated between the end of the pipe and the bottom of the socket. <sup>E.I.</sup> <sup>! E.I.</sup> These gaps weaken the joint, and make it susceptible to <sup>FAILURE, ESPECIALLY DURING E.I.</sup> vibration. The ASME Code

has, for this reason, established a much more rigorous specification.

This is only one example of the systematic downgrading of welding standards I saw at Midland. The Hackney memo became one of many sheet-memos placed in the specifications book.

Equally as serious as the problem of downgraded specifications were the problems created by the incompetence and ignorance of QC. Even something basic like knowing how to use the fillet gauges correctly to measure the size of welds was beyond the ability of some of the Bechtel inspectors, ~~AND ENGINEERS.~~ *E.K.*

In early February, I was working with one of these Bechtel QC inspectors, John Kunski. John was about to approve a fillet weld when I saw that it had not been fully welded. Fillet welds have to be full across the blade, not just touching one edge of the blade. I drew John a diagram to show him this. When John looked at the diagram, he saw that I was right. But the welder refused to put any more weld on -- he said he'd been doing it that way for two years, and his boss had always approved it. We finally had to call his boss in, and explain it to him, before we ~~would~~ *COULD* *E.K.* get the weld ~~to be~~ *redone* *E.K.*. Schulz, another QC ~~inspector~~ *ENGINEER* *E.K.*, was also there to hear the explanation, and he admitted after I showed him the diagram

that he'd been approving bad welds himself, ~~MISTAKENLY DOCUMENTING INADEQUATE FILLET WELDS AS BEING ADEQUATE.~~ *E.K.*

Undersized and improperly done welds were serious problems, but at least they didn't affect the integrity of the piping itself. High-pressure piping, which ~~contains~~ *SOMETIMES* *E.K.* up to 1500 pounds per square inch, is very vulnerable material. It ~~reacts~~ *CAN* *E.K.* like *E.K.*



a balloon to a pinprick. A weakness in any part of the piping is a danger to the entire length. Because of this, I was very concerned to discover that many welds in the piping had been improperly ground down, grinding down the pipe wall thickness along with it.

This was not only a violation in itself. It was part of a larger problem having to do with inspections of the parent metal for the piping systems. In small bore piping, the only way to <sup>THOROUGHLY E.K.</sup> inspect the inside of the piping for <sup>DEFECTS IN THICKNESS, OR</sup> corrosion, is to <sup>E.K.</sup> take what is called a thickness <sup>OF E.K.</sup> materials (TM) reading. <sup>E.K.</sup> <sup>SELDOM DONE ON ANY PIPE, IT IS E.K.</sup> This is a time-consuming process if done <sup>COMPLETELY AND E.K.</sup> correctly. To the best of my knowledge, the Bechtel QC inspectors rarely took the time necessary to do this type of verification. They usually relied on visual inspection only. Visual inspection can detect corrosion only on the outside of the piping, <sup>E.K.</sup> <sup>USUALLY, E.K.</sup>

When I performed a thorough inspection myself of the piping, using TM readings for the inside of the pipe wall, I discovered extensive corrosion. Although the QC reports appear to assure that the piping is of safety-grade quality, these reports fail to reflect the problems of the piping systems which I discovered. To allow severely corroded piping to be approved for safety-related systems is, in my opinion, inexcusable, <sup>E.K.</sup> <sup>E.K.</sup> and certainly very dangerous to the successful operation of <sup>ANY</sup> <sup>E.K.</sup> plant.

Another piping problem with which I was personally familiar developed because Bechtel allowed <sup>LOW-HYDROGEN E.K.</sup> electrodes used in <sup>HOT OVENS OR</sup> welding to be taken out of their hermetically-sealed containers <sup>E.K.</sup>

UP TO E.K.  
for eight hours before use. The American Welding Society (AWS) standard allows only four hours, <sup>MAXIMUM, E.K.</sup> in the open air. When the electrodes are left out, the chemicals in their coating attract ambient humidity. When this moisture is absorbed, it will become steam under the heat applied during the welding process. Each speck of moisture will expand to, <sup>ABOUT E.K.</sup> 750 times its initial volume, and results in substantial porosity, or simply empty space, within the completed weld. The weld will appear strong, but be weakened from within. The AWS standard is used for ordinary bridges and office buildings, but apparently Bechtel thought that twice as lenient a standard was appropriate for a nuclear plant.

E.K. CUT CORN  
X-ray inspections of welding, performed under these conditions, has revealed porosity. <sup>E.K.</sup> The welds have had to be <sup>E.K.</sup> cut out and redone, not just once but many times, often within the same joint. This is one more example of Bechtel's not doing it right the first time. Every time they had to tear the welds out and do them again, it added to their costs and to their profits.

Bechtel has a cost-plus contract, and had routinely wasted large amounts of money because they have little incentive to do the work right the first time. Each time further expenditures are required to redo work, it adds to their fee. I have seen work ripped out because of shoddy installation, redone, and then ripped out and redone again because it still wasn't right. One QC engineer, who has been at Midland ~~since~~ <sup>E.K.</sup> FOR MANY YEARS, E.K.

~~the beginning~~ <sup>E.K.</sup> told me that <sup>IN HIS OPINION, E.K.</sup> over 90 percent of the piping in the entire plant has had to be cut out and replaced at one point or other. In my mind, this raises serious questions of safety, but it also makes me wonder who is going to wind up paying the bill for Midland. Bechtel's indifference to quality will cost the ratepayers a bundle, if they are allowed to pass on their costs to the public.

The defects I have described are generic, <sup>ESPECIALLY E.K.</sup> to the Midland plant. They have happened because Bechtel has hired inexperienced <sup>ENGINEERS, E.K.</sup> welders and inspectors. There were few formal requirements to become a welder, or even an inspector. If this was supposed to be corrected through a thorough training program, it didn't happen. The training periods were only a couple of weeks, and based on my experience in working with the <sup>ENGINEERS, E.K.</sup> welders and the inspectors, I can state that they were not properly trained. When inspectors <sup>AND ENGINEERS E.K.</sup> don't know how to use a fillet gauge to measure welds, you know that the overall program standards cannot be very high, <sup>E.K.</sup> AND A COMPLETE INVESTIGATION IS WARRANTED.

NRC inspections often failed to correct problems. In the area of the inside wall corrosion in small-bore piping, <sup>NRC E.K.</sup> this was because the inspectors seemed too willing to trust the Bechtel inspectors when they made their tours. It was <sup>B. E.K.</sup> generally the Bechtel people who actually climbed around on the piping and called out their measurements, which the NRC inspectors would then write down. As a result, many of the inspection reports do not reflect anything more than Bechtel's own assertions.



Even when the NRC inspectors did show a willingness to carry out a real inspection, they would <sup>OFTEN E.K.</sup> be handicapped by their practice of not coming in unannounced. To the best of my knowledge, there were no NRC inspections that weren't preceded by ~~two or three days of~~ <sup>E.K.</sup> preparation directed by Bechtel, <sup>E.K.</sup> during which problems would be repaired and sometimes <sup>MODIFIED</sup> ~~concealed~~. As a result, the inspectors <sup>SELDOM E.K.</sup> ~~never~~ saw the plant as it really operated on an every-day basis.

My alarming experiences with the field welding and the <sup>ENGINEERS AND E.K.</sup> QC inspectors led me to speak to my boss, Mr. William Creel, numerous times in December and January. Bill generally had the same response: he said that all his men had passed the Bechtel tests and were fully qualified, and he was willing to take their word for it if they said construction was safe, <sup>E.K.</sup> ~~AND ADEQUATE~~.

My real problem began when I tried to talk to the head of Project QC, Mr. Eugene Smith. He told me what Bill Creel was saying, that everybody was qualified and so there couldn't be problems like the ones I was telling him existed.

On Friday, February 26, Eugene Smith called me into his office and told me I was to be terminated. Bill Creel was also there, and the two of them told me that I hadn't been able to adjust to the way things were done at Midland, and so they would have to let me go. They asked me if I had any written comments to make on the termination notice. I wrote down: "I do not agree with any of the above, and ask for a complete investigation of this and all other main problems, by the San Francisco home office, and especially Mr. S. Bechtel."

Never in my life have I ever seen so many critical welds accepted in nuclear work. <sup>AND THEN FOUND THEM TO BE UNACCEPTABLE, E.K.</sup> If this many errors are allowed to exist, the results could be catastrophic."

After I wrote this down, Mr. Smith must have called Ann Arbor Headquarters, because he told me to go see Mr. Don Daniels on Monday. Mr. Daniels met me at the Holiday Inn in Midland, and I tried to explain to him the problems I had seen in the field and with QC. I drew him the same diagrams I had drawn for John Kanski, about the welding standards. All he said to this was that all the <sup>ENGINEERS, E.K.</sup> welders and inspectors were qualified. The feeling I got was that even if I proved what I was saying, Daniels wouldn't do anything about it. He couldn't believe what I was telling him -- <sup>EVIDENTLY E.K.</sup> he believed in the papers that told him the Midland personnel were qualified.

Before Daniels finally told me that I would have to be fired, he made another phone call. I believe it was to Eugene Smith and Bill Creel. Creel was the one who most wanted me to go, <sup>IN MY OPINION, E.K.</sup>

I was also told that in addition to my bad adjustment to Midland, I was being terminated because I had failed to pass the Bechtel tests for Level I QC engineer. Now as I stated earlier, I have seventeen years of <sup>ENGINEERING E.K.</sup> experience in QC and welding. At other Bechtel installations, Palisades and San Onofre, I held both Level I and Level II certificates. <sup>E.K.</sup> Midland was not that different from these other Bechtel operations. I cannot believe that I hadn't passed the Level I test at Midland. I was never given a copy of the written part of

the test. I can only believe that I was fired for insisting that there were serious problems at Midland which my superiors refused to acknowledge, <sup>F.K.</sup> AND HENCE REFUSED TO REPAIR. <sup>F.L.</sup>

Because of the way I had been terminated by Bechtel, and because I felt that my observations had not received ~~any~~ <sup>any</sup> ADEQUATE attention from the internal hierarchy, I decided that I should speak to the NRC. On March 2, 1982, I arranged for a telephone interview with Roger Warnick, William Paton and Don Danielson of NRC. In that interview I told them <sup>GENERALLY F.K.</sup> what I have detailed here in this affidavit. I told them I felt that Bechtel was not adequately investigating the serious problems I had tried to bring to their attention, and that I felt I had been fired for trying to do this. <sup>F.K.</sup>

After I spoke to the NRC, they sent out an inspector <sup>F.L.</sup> to look into my allegations. His report indicates that he spent three days on-site. I don't think that a full investigation could be conducted in such a short period of time, by only one inspector. However, I do feel that the report confirmed my charges, based on what happened when the inspector met with the top men from Consumers, Mr. Marguglio and Mr. Bird. The inspector found them to be extremely hostile to any suggestion that there were serious deficiencies with welding and with QC procedures and qualifications. The inspection report found that further investigation was warranted in this area.

Although the report noted the need for further oversight, it seemed to feel that voluntary monitoring of Bechtel by Consumers would clear up the problem. The problems are too



serious and widespread, to be left to be corrected by the people who created them. I believe that only an independent and comprehensive investigation, by the NRC ~~and~~ <sup>AND E.K.</sup> by outside experts, can provide the assurance that Midland ~~is~~ <sup>WILL BE E.K.</sup> properly built. <sub>E.K.</sub>

I am sure that Consumers and Bechtel will respond to my charges the ~~same~~ <sup>SAME E.K.</sup> way they responded to the NRC inspection. They will <sup>IN MY OPINION, E.K.</sup> deny the problems and promise voluntary efforts to cure them. They will try to ruin my credibility, by saying that I was incompetent, that I couldn't pass the basic tests. Nevertheless, I stand by my statement. After nearly twenty years of work as an engineer, <sup>AND WELDING AUTHORITY, E.K.</sup> I know a deficient weld when I see one, and I know ~~how~~ <sup>E.K.</sup> many of these welds and other problems went undetected <sup>E.K.</sup> (or ignored) by the men responsible for inspecting them. Bechtel has shown by its attitude that it cannot be trusted to perform work of the high quality necessary in a nuclear plant. I feel that a full investigation into its management and construction practices will show that much work will have to be redone before Midland can go into operation. The cost will be enormous, if it can be done at all. Despite the cost, I cannot stand by and watch the plant go on-line in its present state of safety. To do so would be to betray my responsibilities as a professional, as an engineer, and

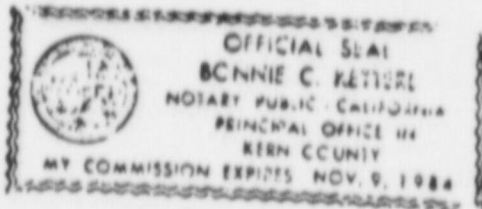
as a citizen.

I have read the above twelve- (12) page affidavit. To the best of my knowledge, it is true, accurate and complete.

E. Earl Kent  
E. EARL KENT

SUBSCRIBED AND SWORN TO before me  
this 16 day of JULY, 1982.

Bonnie C. Kettore  
Notary Public





# AGREEMENT AND ACKNOWLEDGMENT OF OBLIGATION

Attachment 4

THIS AGREEMENT AND ACKNOWLEDGMENT OF OBLIGATION, is executed by the undersigned Employee and delivered to Bechtel on the date set forth below.

1. I hereby acknowledge that I understand and agree that the provisions hereof are part of my employment contract with Bechtel, and that my employment by Bechtel and the payment of the compensation I receive from Bechtel are induced by and in consideration of my agreement to such provisions, and my acknowledgment of my obligations hereunder.

2. As used herein, "Bechtel" shall mean Bechtel Group, Inc., or Bechtel Power Corporation and any affiliate or subsidiary of Bechtel Power Corporation, or Bechtel Petroleum, Inc. and any affiliate or subsidiary of Bechtel Petroleum, Inc., or Bechtel Civil & Minerals, Inc. and any affiliate or subsidiary of Bechtel Civil & Minerals, Inc. "Client" shall mean any person or entity for whom Bechtel performs services or from whom Bechtel or Employee obtains information; "information" shall mean any information, knowledge, or data relating to plans, specification, documents, inventions, methods, processes, products or operations of Bechtel or Clients; and "employment" shall include employment for hourly wages, for salary, or as a consultant.

3. I recognize that the business of Bechtel and the nature of my employment will permit me to have access to information of Bechtel and its Clients, that such information is the property of Bechtel and of its Clients, and that any unauthorized disclosure thereof may be highly prejudicial to their interests. I further recognize that I may during the term of my employment make inventions, discoveries or improvements.

4. I shall not disclose or use, directly or indirectly, at any time, any information as above defined, unless such disclosure or use is in the course of my employment by Bechtel or has been expressly authorized in writing by Bechtel. I shall not remove any writings containing information from the premises or possession of Bechtel or its Clients unless I have obtained express authorization in writing by Bechtel to do so.

5. Any and all ideas, inventions, discoveries and improvements which I conceive, discover, or make during the term of my employment, in any way relating to the business of Bechtel or arising out of or resulting from my employment, shall be the sole and exclusive property of Bechtel or its nominee. I shall promptly advise Bechtel of each such idea, invention, discovery and improvement and, whenever requested by Bechtel, I, my executors, administrators, legally appointed guardians, conservators or representatives shall without further compensation promptly execute any and all instruments which Bechtel may deem necessary to assign and convey to it, its successors or assigns, all the right, title and interest in and to each such idea, invention, discovery and improvement, and Letters Patent for the same, or such other interests therein as I may acquire, together with all instruments deemed necessary by Bechtel to apply for and obtain Letters Patent of the United States or foreign countries, it being understood and agreed that all expense incident to the securing of such applications and Letters Patent shall be borne by Bechtel, its successors or assigns. I understand and agree that such obligation to execute such instruments shall continue after termination of my employment by Bechtel with respect to each such idea, invention, discovery and improvement, which I conceived, discovered or made during the term of my employment, in any way relating to the business of Bechtel or arising out of or resulting from my employment.

6. This Agreement and Acknowledgment of Obligation shall be effective as of the date that I commenced or will commence my employment with Bechtel.

Dated \_\_\_\_\_

This agreement does not apply to an invention for which no equipment, supplies, facility, or trade secret information of Bechtel is used and which is developed entirely on my own time, and (a) which does not relate (1) to the business of Bechtel or (2) to Bechtel's actual or demonstrably anticipated research or development, or (b) which does not result from any work performed by me for Bechtel.

Employee: \_\_\_\_\_

(Signature) \_\_\_\_\_

(Typed) \_\_\_\_\_

Attest: \_\_\_\_\_

(Signature) \_\_\_\_\_

(Typed) \_\_\_\_\_





On the occasion of the termination of your employment we should like to remind you of the nondisclosure and secrecy agreements which you have signed while in the employment of Bechtel Power Corporation and any affiliate or subsidiary of Bechtel Power Corporation and Bechtel Incorporated and any affiliate or subsidiary of Bechtel Incorporated.

You can obtain information concerning the contents of any such agreements to which you are a party by contacting either the undersigned or the Legal Department of Bechtel.

We bring to your attention the fact that the provisions of any secrecy agreements which you have signed while an employee of Bechtel remains in force until they expire by their terms and apply whether or not you are employed by Bechtel. Thus you are bound by such agreements after termination of your employment with Bechtel to the same extent as heretofore.

Your secrecy commitments form the basis for similar agreements which Bechtel has given to certain of its valued clients; hence your full cooperation in complying strictly with the terms of your commitments is of extreme importance and necessity and will be assumed and appreciated by Bechtel.

Yours very truly,

By \_\_\_\_\_

Title \_\_\_\_\_

(Signed) \_\_\_\_\_  
Employee

(Typed) \_\_\_\_\_

TO ORDER THE GROUP INSURANCE  
CONVERSION LETTER USE  
FORM NO. 11624

ORIGINAL - Master Personnel File  
YELLOW - Employee Copy

(If mailed, attach "Certificate of Mailing" here.)  
SEE PERSONNEL PROCEDURES MANUAL  
FOR INSTRUCTIONS.



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

MAR 24 1982

Docket No. 50-329(DETP)  
Docket No. 50-330(DETP)

Consumers Power Company  
ATTN: Mr. James W. Cook  
Vice President  
Midland Project  
1945 West Parnall Road  
Jackson, MI 49201

82-04

Gentlemen:

This refers to the routine safety inspection conducted by Mr. K. D. Ward of this office on March 2-4, 1982, of activities at the Midland Plant, Units 1 and 2, authorized by NRC Construction Permits No. CPPR-81 and No. CPPR-82 and to the discussion of our findings with Mr. W. Bird and others at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

No items of noncompliance with NRC requirements were identified during the course of this inspection.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractors) believe to be exempt from disclosure under 10 CFR 9.5(a)(4), it is necessary that you (a) notify this office by telephone within ten (10) days from the date of this letter of your intention to file a request for withholding; and (b) submit within twenty-five (25) days from the date of this letter a written application to this office to withhold such information. If your receipt of this letter has been delayed such that less than seven (7) days are available for your review,

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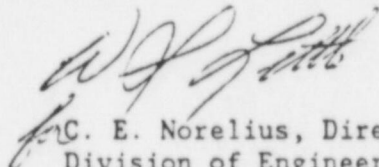
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MAR 24 1982

please notify this office promptly so that a new due date may be established. Consistent with Section 2.790(b)(1), any such application must be accompanied by an affidavit executed by the owner of the information which identifies the document or part sought to be withheld, and which contains a full statement of the reasons which are the bases for the claim that the information should be withheld from public disclosure. This section further requires the statement to address with specificity the considerations listed in 10 CFR 2.790(b)(4). The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified periods noted above, a copy of this letter and the enclosed inspection report will be placed in the Public Document Room.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

  
C. E. Norelius, Director  
Division of Engineering and  
Technical Programs

Enclosure: Inspection  
Report No. 50-329/82-04(DETP)  
and No. 50-330/82-04(DETP)

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  
Michael Miller  
Ronald Callen, Michigan  
Public Service Commission  
Myron M. Cherry  
Barbara Stamiris  
Mary Sinclair  
Wendell Marshall  
Steve J. Gadler



U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-329/82-04(DETP); 50-330/82-04(DETP)

Docket No. 50-329; 50-330

License No. CPPR-81; CPPR-82

Licensee: Consumers Power Company  
1945 W. Parnell Road  
Jackson, MI 49201

Facility Name: Midland Plant, Units 1 and 2

Inspection At: Midland Site, Midland, MI

Inspection Conducted: March 2-4, 1982

Inspector: *D.H. Danielson*  
K. D. Ward

3/10/82

Approved By: *D.H. Danielson*  
D. H. Danielson, Chief  
Materials & Processes Section

3/10/82

Inspection Summary

Inspection on March 2-4, 1982 (Report No. 50-329/82-04(DETP); 50-330/82-04(DETP))

Areas Inspected: Reports and radiographs of shop welds; previous inspection findings; nondestructive examination (NDE) personnel certifications of CPCo individuals; allegation. The inspection involved a total of 30 inspection-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

~~82-0409-389~~

bpp

## DETAILS

### Persons Contacted

#### Consumers Power Company (CPCo)

\*B. Marguglio, Director QA  
\*W. Bird, Manager QA  
\*R. Whitaker, Section Head - Fluids and Mechanical QA  
\*R. Davis, NDE/Welding Group Supervisor QA  
M. Curland, QA Superintendent

#### Bechtel Power Company (BPCo)

\*E. Smith, QC Engineer  
\*M. Dietrich, Project QA Engineer  
D. Fredianelli, LWQCE  
W. Creel, LPMQCE  
A. Van Den Bosoh, CQCE  
A. McClure, PQAE

The inspector also contacted and interviewed other licensee and contractor employees.

\*Denotes those attending the exit interview.

### Licensee Action on Previous Inspection Findings

(Closed) Deviation (329/80-01-02; 330/80-01-03): "No positive way of tracking design changes and assuring that completed work is modified in accordance with design changes and no procedure for handling design changes made after completion of work." The inspector reviewed the final response to RIII from CPCo dated May 15, 1980 and the following procedures which state the required information.

- . Bechtel, Design Change Packages Interim Drawing Changes Notices, EDP14.47.1
- . Bechtel, Functional Turnover of Systems, Subsystems and Items, AAPD/PSPG-11.1

(Open) Unresolved Item (329/80-17-02; 330/80-19-02): "Radiographic linear indications of welds in two borated water storage tanks." In the Summer of 1982, the tanks may be drained and made available for radiography.

(Open) Unresolved Item (329/81-21-01): Possible altered radiographs. Waiting results of RIV inspection of Grinnell. Four welds of altered radiographs were found out of 46,505 shop radiographic views reviewed on site.

## Functional or Program Areas Inspected

### 1. Allegations

- a. Region III received allegations indirectly from an individual who was previously employed at the Midland site by Bechtel Power Corporation for the purpose of training to be a Level I weld inspector in accordance with Bechtel Quality Control Instruction, Level I Fabrication, Welding, Heat Treating and Nondestructive Examinations of ASME Section III - Piping, PW-100. The individual failed the Level I test two times and was terminated.

The allegations were as follows:

- . Socket welds not being completely welded.
- . A steam line weld had concavity.
- . Problems in containment liner plate weld radiography.

BPCo had previously identified questionable areas in the inspection efforts of one QC welding inspector assigned to inspect socket welds. CPCo was notified of the problem March 2, 1982. BPCo is going to review 100% of the one QC welding inspector's efforts and random sample other inspector efforts in inspecting socket welds. CPCo may monitor the BPCo program. This is considered an unresolved item (329/82-04-01; 330/82-04-01) and the inspector will review this in depth at the next inspection.

The inspector visually examined the following socket welds in accordance with ASME Section III, 1971 Edition, Summer 1973 Addenda.

<u>Line #</u>	<u>Field Weld #</u>	<u>Diameter</u>
FSK-M-1HBC-58-2	FW50	2"
"	51	2"
"	56	2"
"	61	1"
"	62	1"
"	63	1"
"	64	2"
"	65	2"
"	88	2"
"	89	2"
"	90	2"
"	91	2"
FSK-M-1MBC-57-5	10	2"
"	11	2"
"	12	2"
"	13	2"



<u>Line #</u>	<u>Field Weld #</u>	<u>Diameter</u>
FSK-M-2HBC-57-1	118	2"
"	122	2"
"	123	2"
"	124	2"
"	125	2"
"	126	2"
"	127	2"
FSK-M-2HBC-57-1	128	2"
"	129	2"
"	130	2"
"	131	2"
"	132	2"
"	133	2"

The inspector visually examined steam line 2ELB-11 field weld 1, 36" diameter, nominal wall thickness 2.375". There is a slight offset which met ASME Section III, 1971 Edition, Summer 1973 Addenda. The weld has been blended for inservice inspection and appeared to be acceptable.

CPCo recently contracted Hartford Steam and Boiler/NDT Engineering, a company with qualified/certified radiographic film interpreters, to interpret the shop weld radiographs of Units 1 and 2 containment liner plates 100%. This consisted of approximately 900 views. The results of the review found that approximately 20 welds had weld quality or radiographic technique problems. The results are documented in nonconformance report #M-01-9-2-025 issued February 19, 1982.

- b. CPCo received four allegations concerning B&W NDE work from an individual previously employed at the Midland Site (File 16.0, Serial 98FWA80, dated April 11, 1980). Three of the allegations were closed (Reference NRC Report No. 50-329/80-27; 50-330/80-28 and No. 50-329/81-06; 50-330/81-06). The fourth allegation has not been resolved to date. CPCo management in Jackson, Michigan is reviewing the allegation and has hired Teledyne Engineering Services to analyze the as-welded conditions for acceptability.

No items of noncompliance or deviations were identified.

2. Radiographic Review of Shop Radiographs (See NRC Report No. 329/81-21; 330/81-21)

The inspector reviewed several nonconformance reports on the 46,505 shop radiographs reviewed in 1981. Approximately 50 items that were radiographed were found to be unacceptable in weld quality or radiographic techniques. The items are to be resolved in the near future.

No items of noncompliance or deviations were identified.

3. NDE Personnel Certifications

The inspector reviewed the following CPCo NDE personnel certifications in accordance with SNT-TC-1A, 1975 Edition:

<u>Name</u>	<u>RT</u>	<u>PT</u>	<u>MT</u>
R. Davis	II	II	II
T. Charette	II	II	

No items of noncompliance or deviations were identified.

4. Review of Shop Radiographs

The inspector reviewed radiographs and reports of the following shop components.

- a. Radiography performed by ARMCo for Guyon Alloy Company in accordance with ASME Section III, 1977 Edition, Winter 1978 Addenda.

<u>System</u>	<u>Weld</u>	<u>Diameter</u>	<u>Thickness</u>	<u>Date RT</u>
SNO-8842	1P	12"	1.371"	8/8/80
SNO-8843	1P	12"	1.371"	8/8/80

- b. Radiography performed by Peabody Testing, X-Ray Engineering Company for Bechtel Corporation in accordance with ASME Section III, 1974 Edition, Summer 1974 Addenda.

<u>Component</u>	<u>Diameter</u>	<u>Thickness</u>	<u>Date RT</u>
5346-14-1-8 Gate Valve	4"	1/8" - 1 1/2"	10/13/76

- c. Radiography performed by Taylor-Bonney Division for McJunkin Corporation in accordance with ASME Section III, 1977 Edition, Winter 1978 Addenda.

<u>Component</u>	<u>Weld</u>	<u>Diameter</u>	<u>Thickness</u>	<u>Date RT</u>
90 Ell 802352	14	18"	0.395	12/17/79

- d. Radiography performed by ITT Grinnell Industrial Piping Inc. for CPCo in accordance with ASME Section III, 1971 Edition, Summer 1973 Addenda.

<u>System</u>	<u>Weld</u>	<u>Diameter</u>	<u>Thickness</u>	<u>Date Rt</u>
2CCB-6-S-604-9-L	E	4"	0.593"	1/25/77
2HCB-2-5-613-5-11	CR3	18"	0.437"	8/9/76

2HCC-84-S-604-18-1	B	2 1/2"	0.192"	9/26/77
2ELB-11-S-632-1-1	BUZ	36"	1.379"	10/30/78
2HCB-16-S-604-6-2	C	6"	0.156"	6/22/77
2FCB-18-S-604-5-9	A	6"	0.312"	4/25/77

No items of noncompliance or deviations were identified.

#### Unresolved Matters

Unresolved matters are items about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during this inspection are discussed under the paragraph 1.a.

#### Exit Interview

The inspector met with site representatives (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report. The inspector has been going on inspections to Midland since September 1978 and this was the most hostile exit interview ever encountered. The acting NDE and Welding Supervisor, Section Head, Fluids and Mechanical QA and the new Site QA Superintendent were very concerned with the socket weld problem noted in paragraph 1.a. The Site QA Superintendent informed the inspector prior to the exit that CPCo would establish an overview program to check into the welding and inspection of socket welds and qualification of QC personnel. However, at the exit this program was completely unacceptable to the QA Manager and Director. This matter is an unresolved item and this area will be reviewed indepth during a subsequent inspection.



James Foster  
Inspection & Enforcement  
Region III, NRC

PRINCIPAL STAFF			
DIR	(u)	1127	
D/D		220	
A/D		310	
DRSPL	1127	Porter	
DESI		Bohler	1127
DEP&OS		File	1127

May 12, 1982

Dear Mr. Foster,

We have been in contact regarding certain welding allegations at the Midland plant. I note favorably that these allegation issues are considered unresolved in Inspection Report 82-04. There are several questions about these issues which still trouble me.

According to the I&E Report, the individual who made these allegations failed to pass his Level I exam twice. However this inspector was a Level I and Level II inspector previously and has extensive welding and QC experience (enclosed resume). This individual believes that he "failed" his Level I exam because of his open criticism of QC practices rather than because of a lack of competence on his part.

This inspector attempted to work within the established system, alerting his superiors to specific QC inadequacies and seeking reinspection of work previously accepted by inferior QC standards. After about a month of unsuccessful efforts in this regard, this individual was fired. He made a written statement disagreeing with the terms of his termination and calling for a top level Bechtel review of onsite welding conditions at the Midland plant.

Due to the circumstances regarding this inspector's open and ongoing criticism, a welding investigation was probably anticipated. The welding in question could have been redone. Welding rework prior to NRC inspection occurred at the Zimmer plant to discredit allegations in this fashion.

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One example of possible welding rework involves the reported concave condition of the 36" main steam pipeline from the containment building. The 1-1½ foot concave condition was witnessed by another inspector who, according to the alleged, agreed it was defective at the time they saw it together. When NRC Inspector Ward sought corroboration of the alleged statement, the second inspector was "noncommittal" saying something like "look for yourself- what do you think?", (as you related to me, following the inspection). Inspector Ward found the main steamline weld adequate when inspected. But the question as to whether this weld was previously concave, has not been pursued by the NRC.

In response to my questions about possible weld rework, Resident Inspector, Ron Cook, replied that the NRC had checked the records and found no paperwork indicating recent rework of any of the welds inspected. He considered such rework highly implausible. However if the NRC does not thoroughly investigate this possibility, important safety issues could go undetected.

The NRC has recently testified before Congress that their investigations seek to learn the root causes of problems as well as their specific effects. The possibility that a concerned individual has lost his job because of his willingness to speak up over the inadequacies he saw, should be pursued by the NRC. The second inspector could be placed under oath to answer questions about the main steamline weld. The job performance of the alleged and records of his "failed" Level I examinations should be thoroughly investigated.

The description of the exit interview as "the most hostile exit interview ever encountered" by this inspector since 1978 and the resistance

of OA Director Marguglio and OA Manager Bird to the commitment of the new Site OA Superintendent to establish an overview program to check welding and qualifications involved, raises serious questions about the functioning of the reorganized OA department, (an issue Mr. Keppler intended to closely monitor and assess, 2/2/82 testimony, 7097-8)

Due to the seriousness of these welding allegations and the related issues, I would like to see the following questions addressed by the NRC.

- 1) Are QC inspection practices conservative enough to identify inferior welding? Have they been so in the past?
- 2) Are QC (Level I, II) certification criteria so subjective that pass/fail decisions could be based on factors other than individual competence?
- 3) Are QC inspectors able to raise concerns and make criticisms within the QA/QC framework without fear of losing their jobs?
- 4) Does the QA/QC program address generic implications of identified problems even if that entails reviewing work previously judged acceptable by identified inadequate QC methods?

Perhaps you are already pursuing some of these questions in your continuing investigation. I note that Audit Finding Report MOI-217-1-03F of 3/2/82 identifies inadequate weld allowables in 6 of 10 calculations audited. Thank you for your ongoing efforts concerning these welding allegations.

Sincerely,

*Barbara Stamiris*

Barbara Stamiris  
5795 N. River  
Freeland, Mich. 48623

cc: W. Paton NRC  
T. Devine GAP  
C. Miller





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

OCT 12 1982

Government Accountability Project  
Institute for Policy Studies  
ATTN: Ms. Billie P. Garde  
Director  
Citizens Clinic for  
Accountable Government  
1901 Que Street, NW  
Washington, D.C. 20009

Dear Ms. Garde:

I have reviewed your September 6, 1982 letter to me and appreciate the opportunity to respond to your concerns.

The Midland allegations submitted by the Government Accountability Project earlier this year have been forwarded to the NRC's Office of Investigations for review and investigation. Region III will provide technical assistance for the investigators on the case.

Your comment that the special inspection team "has not arrived" is simply not true. The Office of Special Cases was formed in mid-July 1982 and the selection of personnel was made at that time. Robert Warnick is director of the new office and Wayne Shafer is chief of the Midland Section. They have been actively involved since then. I understand from Mr. Shafer of my staff that you would like to meet with the Midland Section personnel. I certainly encourage these types of meetings and urge you to schedule a meeting when it is convenient for both you and my staff.

One point needs to be clarified. I did not organize the Midland Section to perform investigations. They are performed by the NRC's Office of Investigations, and all investigators formerly assigned to me now work for James A. Fitzgerald, Acting Director, Office of Investigations. Region III continues to perform technical inspections and provides technical support for OI as requested. Inquiries about investigation policies should be addressed to Mr. Fitzgerald at the NRC in Washington, D.C.

Regarding the Zack Corporation problems, you are quite correct that the LaSalle plant has had priority over Midland. Many of the problems, however, have generic applicability to all the sites where the Zack Corporation is involved. As the investigation at the LaSalle plant and Zack corporate office continues, many of the generic problems that could apply equally to the Midland site are being reviewed. Specific Zack problems at the Midland site will be investigated as manpower availability permits. The Consumers Power Company investigation of the Zack allegations will not be a substitute for the NRC inquiry; we intend to both assess the adequacy of the Consumers Power investigation and continue our own investigation of the allegations relating to Midland. We have set January 1983 as a tentative date for completion of the Zack investigation. Until the investigation is complete, we will not be able to discuss the findings.

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As I am sure you know, the Systematic Appraisal of Licensee Performance (SALP) Program is an assessment of licensee performance based on input from all the inspectors involved in inspections with the licensee. The SALP rating in Support Systems, VI, applied only to Consumers Power Company's quality effort, not to the Zack Corporation. You may wish to discuss this with the Midland Section when you meet with them. NRC procedures require that the licensee be provided the opportunity to respond to the SALP findings, and the meetings we have held with Consumers Power are to fulfill that requirement.

Regarding the question of why Consumers Power Company did not report the Zack QA breakdown to the NRC in the fall of 1981, the documents provided by another allegor revealed that Consumers Power and Bechtel concluded that the problems would not have adversely impacted the safety of operations at the Midland plant. The basis for this decision will be reviewed during our site specific inspection at the Midland site.

The NRC became aware of the Zack Corporation problems in October 1981 when the Commonwealth Edison Company submitted a 50.55(e) report.

I have made no decision as to whether an independent audit of Zack work will need to be conducted at the Midland plant. Consumers Power Company is presently selecting one or more independent contractors to perform an independent third party review of a critical plant system or subsystem. In addition, Consumers Power plans to have an independent contractor conduct an INPO type construction project evaluation. My decision regarding an independent audit of Zack work at Midland will be based on the findings of our investigation and special inspections and the scope and findings of the licensee's third party independent assessments.

Regarding the interview with one of the allegors whose affidavit was presented to NRC by GAP, as you stated, the interview was taped. My staff has reviewed the transcript of this interview and noted no discussion regarding whether or not this person could go to the site to assist the NRC. Some of the allegor's concerns have been looked at by our Region III welding specialist. The balance of the allegors concerns will be addressed either by investigation or special inspection.

Our policy for taking personnel to the site is well known. The information provided by this individual is being reviewed by my staff. When our review is completed he will be contacted by the NRC and requested to accompany us on site.

OCT 12 1982

Regarding the Bechtel Employee Inventions and Secrecy Agreement, form 3002, we view this document as a standard form used by companies to protect the company's proprietary information and inventions. I have no knowledge of anyone being fired for talking to the NRC, with this document used as a basis for dismissal.

Effective later this month, new regulations will be in effect requiring licensees, including nuclear construction sites, to post notices informing employees of their protection against discrimination for providing information to the NRC. We will review the Bechtel form and its use further to determine if the workers' perception is that it prohibits discussions with NRC personnel. Certainly, the new posting requirement may help alleviate any perceived intimidation for workers desiring to provide information to the NRC. A copy of the required posting, NRC Form 3, is enclosed.

In closing, I want to personally assure you that the NRC is diligently working on the allegations that have been presented to us by GAP. I am sure that GAP wants our office to do a complete and thorough investigation and that is exactly our intent, but this is time consuming. We must assign our priorities to the most safety significant issues and I consider the Midland Remedial Soils Effort the most safety significant issue at the site. As priorities dictate, all relevant safety issues will be investigated.

Further, we sincerely do perceive our role as representatives of the public interest and certainly do not feel constrained by the utilities' timetables. Similarly, we should not feel bound by timetables called for by other interested individuals or organizations. This region has taken and will continue to take, appropriate and decisive action when problems are identified at nuclear plants.

Sincerely,

James G. Keppler  
Regional Administrator

Enclosure: As stated

bcc w/enclosure:

H. R. Denton

D. G. Eisenhut

W. D. Paton

R. C. DeYoung

RIII Midland Files

OFFICE	RIII	RFW	L	OK	OI:RIII	
SURNAME	Shaffer/ls	Warnick	Davis	Keppler	FOSTER	STRASSER
DATE	10/6/82	10/6/82	10/8/82	10/12/82	10/12/82	OK





UNITED STATES NUCLEAR REGULATORY COMMISSION  
Washington, D.C. 20555

# NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION (PART 20); NOTICES, INSTRUCTIONS, REPORTS TO WORKERS; INSPECTIONS (PART 19); EMPLOYEE PROTECTION

The Nuclear Regulatory Commission (NRC) in its Rules and Regulations: Part 20 has established standards for your protection against radiation hazards from radioactive material under license issued by the NRC. Part 19 has established certain provisions for the options of workers engaged in NRC licensed activities in Parts 30, 40, 50, and other parts containing provisions related to employee protection.

**POSTING REQUIREMENTS** Copies of this notice must be posted in a sufficient number of copies at every establishment where activities licensed by the NRC are conducted, to permit employees to obtain a copy on the way to or from their place of employment.

## YOUR EMPLOYER'S RESPONSIBILITY

Your employer is required to—

1. Apply these NRC regulations and the conditions of his NRC license to all work under the license.
2. Post or otherwise make available to you a copy of the NRC regulations, licenses, and operating procedures which apply to work you are engaged in, and explain their provisions to you.
3. Post Notices of Violation involving radiological working conditions, proposed imposition of civil penalties and orders.
4. Refrain from discriminatory acts against employees who provide information to NRC.

## YOUR RESPONSIBILITY AS A WORKER

You should familiarize yourself with those provisions of the NRC regulations, and the operating procedures which apply to the work you are engaged in. You should observe their provisions for your own protection and protection of your co-workers.

## WHAT IS COVERED BY THESE NRC REGULATIONS

1. Limits on exposure to radiation and radioactive material in restricted and unrestricted areas.
2. Measures to be taken after accidental exposure.
3. Personnel monitoring, surveys and equipment.
4. Caution signs, labels, and safety interlock equipment.
5. Exposure records and reports.
6. Options for workers regarding NRC inspections.
7. Identifies "protected activities" that employees may engage in.
8. Prohibits discrimination against employees who engage in these protected activities.
9. Identifies the Department of Labor as a source of relief in the event of discrimination, and
10. Related matters.

## REPORTS ON YOUR RADIATION EXPOSURE HISTORY

1. The NRC regulations require that your employer give you a written

report if you receive an exposure in excess of any applicable limit as set forth in the regulations or in the license. The basic limits for exposure to employees are set forth in Section 20.101, 20.103, and 20.104 of the Part 20 regulations. These Sections specify limits on exposure to radiation and exposure to concentrations of radioactive material in air.

2. If you work where personnel monitoring is required pursuant to Section 20.202:
  - (a) your employer must give you a written report of your radiation exposures upon the termination of your employment, if you request it, and
  - (b) your employer must advise you annually of your exposure to radiation, if you request it.

## INSPECTIONS

All activities under the license are subject to inspection by representatives of the NRC. In addition, any worker or representative of workers who believes that there is a violation of the Atomic Energy Act of 1954, the regula-

tions issued thereunder, or the terms of the employer's license with regard to radiological working conditions in which the worker is engaged, may request an inspection by sending a notice of the alleged violation to the appropriate United States Nuclear Regulatory Commission Regional Office (shown on map below). The request must set forth the specific grounds for the notice, and must be signed by the worker or the representative of the workers. During inspections, NRC inspectors may confer privately with workers, and any worker may bring to the attention of the inspectors any past or present condition which he believes contributed to or caused any violation as described above.

## EMPLOYEE PROTECTION

If an employee believes that discrimination has occurred due to engaging in the "protected activities" said employees may, within 30 days of the discriminatory act, file a complaint with the Department of Labor, Employment Standards Administration, Wage and Hour Division. The Department of Labor shall conduct an investigation

and shall, where discrimination has occurred, issue an order providing relief to the employee if relief is not provided by other means of settlement.

## PROTECTION OF INSPECTORS

The amended Atomic Energy Act, section 236, provides criminal penalties against any individual who kills, forcibly assaults, resists, opposes, impedes, intimidates or interferes with any person who performs any inspections which (1) are related to any activity or facility licensed by the Commission, and (2) are carried out to satisfy requirements under the Atomic Energy Act or under any other Federal law covering the safety of licensed facilities or the safety of radioactive materials. The acts described above are criminal not only if taken against inspection personnel who are engaged in the performance of such inspection duties, but also if taken against inspection personnel on account of such duties.

## SABOTAGE OF NUCLEAR FACILITIES OR FUEL

The amended Atomic Energy Act, section 238, provides criminal penalties against any individual who intentionally destroys or causes physical damage, or attempts to do so, to any production, utilization, or storage facility licensed under or any nuclear fuel or spent fuel regardless of location.

## UNITED STATES NUCLEAR REGULATORY COMMISSION REGIONAL OFFICE LOCATIONS

A representative of the Nuclear Regulatory Commission can be contacted at the following addresses and telephone numbers. The Regional Office will accept collect telephone calls from employees who wish to register complaints or concerns about radiological working conditions or other matters regarding compliance with Commission rules and regulations.

### Regional Offices

REGION	ADDRESS	TELEPHONE
I	U.S. Nuclear Regulatory Commission Region I 821 Park Avenue King of Prussia, PA 19406	215 337-
II	U.S. Nuclear Regulatory Commission Region II 181 Marietta St., N.W., Suite 3100 Atlanta, GA 30336	404 221-
III	U.S. Nuclear Regulatory Commission Region III 700 Renaissance Road Glen Ellyn, IL 60137	312 832-
IV	U.S. Nuclear Regulatory Commission Region IV 811 Ryan Plaza Drive, Suite 1000 Arlington, TX 76012	817 485-
V	U.S. Nuclear Regulatory Commission Region V 1450 Marie Lane, Suite 210 Walnut Creek, CA 94596	415 943-

