

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. Rumble, 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 ^{IN NUCLEAR WORK, ESPECIALLY *E.K.*} at the Midland nuclear plant, ^{IN MY OPINION, *E.K.*} 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 ~~held~~ ^{HELD *E.K.*} the title of *S* Senior Quality Control Engineer for nuclear welding. *E.K.* 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 ^{AND SENIOR WELDING ENGINEER *E.K.*} for Litton Industries, as a field ^{*E.K.*} Welding ^{*E.K.*} Inspector for Boyle Engineering Corporation, and as a ^{*E.K.*} Welding ^{*E.K.*} Supervisor ^{AND WELDING ENGINEER *E.K.*} for Fluor Engineers. I have also worked as a ^{*E.K.*} Quality Assurance ^{*E.K.*} and ^{*E.K.*} Quality ^{*E.K.*} Control ^{*E.K.*} Engineer for Joy Manufacturing.

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, ^{E.K.} ~~and~~ Two, ^{AND THREE, E.K.} 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 ^{NORWALK E.K.} ~~central~~ office, from the Vice President of Bechtel's Los Angeles Power Division, for my work there.

Based on ^{E.K.} my years of ^{ENGINEERING AND E.K.} 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 ^{E.K.} ~~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, ^{ENGINEERING AND E.L.} 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 ^{RESEARCH AND E.L.} testing. Despite this, Bechtel in some cases made the decision, based on their ^{E.L.} own engineers' ^{OPINIONS OR E.L.} 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 ^{HAD E.L.} 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. ^{E.L.} These gaps weaken the ^{! E.L.} joint, and make it susceptible to ^{FAILURE, ESPECIALLY DURING E.L.} 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.*

In early February, I was working with one of these *E.K.* 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~~ *E.K.* redone. Paul Schulz, another *ENGINEER* *E.K.* ~~inspector~~, 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 *SOMETIMES* *E.K.* contains up to 1500 pounds per square inch, is very vulnerable material. It *CAN* *E.K.* react 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 ^{THOROUGHLY E.K.} inspect the inside of the piping for ^{ERRORS IN THICKNESS, OR} corrosion, is to ^{E.K.} take what is called a thickness ^{OF E.K.} materials (TM) reading. ^{E.K.} This is ^{SELDOM DONE ON ANY PIPE, IT IS E.K.} a time-consuming process if done ^{COMPLETELY AND E.K.} 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, ^{USUALLY, E.K.}

When I performed a thorough ^{E.K.} inspection myself of the ^{E.K.} 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, ^{E.K.} inexcusable, ^{E.K.} and certainly very dangerous to the successful operation of ^{E.K.} ANY ^{E.K.} plant.

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

^{UP TO E.K.} for eight hours before use. The American Welding Society (AWS) standard allows only four hours ^{MAXIMUM, E.K.} 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 ^{ABOUT E.K.} 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.

X-ray inspections of welding, performed under these conditions, has revealed porosity. ^{E.K.} The welds have had to be ^{E.K.} ~~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~~

^{E.K.} FOR MANY YEARS,
^{E.K.}

^{E.K.}

~~the beginning~~, ^{E.K.} told me that ^{IN HIS OPINION, E.K.} 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, ^{ESPECIALLY E.K.} to the Midland plant. They have happened because Bechtel has hired inexperienced ^{ENGINEERS, E.K.} 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 ^{ENGINEERS, E.K.} welders and the inspectors, I can state that they were not properly trained. When inspectors ^{AND ENGINEERS E.K.} don't know how to use a fillet gauge to measure welds, you know that the overall program standards cannot be very high, ^{E.K.} 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, ^{NRC E.K.} this was because the inspectors seemed too willing to trust the Bechtel inspectors when they made their tours. It was generally the ^{B, E.K.} 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 ^{OFTEN E.K.} 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 ~~was or three days of~~ ^{E.K.} preparation directed by Bechtel, ^{E.K.} during which problems would be repaired and sometimes ^{MODIFIED} ~~concealed~~. As a result, the inspectors ^{SELDOM E.K.} ~~never~~ saw the plant as it really operated on an every-day basis.

My alarming experiences with the field welding and the ^{ENGINEERS AND E.K.} 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, ^{E.K.} 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. ^{AND THEN FOUND THEM TO BE UNACCEPTABLE, E.K.} 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 ^{ENGINEERS, E.K.} 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 -- he ^{EVIDENTLY E.K.} 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, *IN MY OPINION. E.K.*

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 ^{ENGINEERING E.K.} experience in QC
and welding. At other Bechtel installations, Palisades and
San Onofre, I held both Level I and Level II certificates.
^{E.K.} Midland was not that different from these other Bechtel opera-
tions. 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, *E.K.* AND HENCE REFUSED TO REPAIR. *E.K.*

Because of the way *E.K.* I had been terminated by Bechtel, and because I felt that my observations had not received ~~any~~ ADEQUATE *E.K.* 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 *E.K.* GENERALLY what I have detailed here in this affidavit. I told them I felt that Bechtel was *E.K.* 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.

After I spoke to the NRC, they sent out an inspector *E.K.* 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~~ ^{E.K.} by outside ^{AND E.K.} experts, can provide the assurance that Midland ~~is~~ ^{WILL BE E.K.} properly ^{E.K.} built.

I am sure that Consumers and Bechtel will respond to my charges the ~~same~~ ^{SAME E.K.} way they responded to the NRC inspection. They will ^{IN MY OPINION, E.K.} deny the problems and promise voluntary ^{E.K.} 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 ^{AND WELDING AUTHOR, E.K.}, I know a deficient weld when I see one, and I know ~~how~~ ^{E.K.} many of these welds and other problems went undetected ^{E.K.} (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

Page Twelve .

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. Ketterl
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: _____

Employee: _____

(Signature) _____

(Typed) _____

Attest: _____

(Signature) _____

(Typed) _____

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.



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

R. F. Warnick
File

September 23, 1982

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

Dear Ms. Garde,

Enclosed please find the summary report of the telephone communications you and I had on September 17, 1982. While the report is not a word summary of our communications, I do feel that the salient issues are addressed.

Should you have any questions regarding this communication I will be happy to discuss them with you.

Sincerely,

W. D. Shafer
W. D. Shafer Chief
Midland Section

Enclosure: As stated

cc w/o enclosure:
✓ R. F. Warnick
A. B. Davis
J. G. Keppler

~~8406020187~~

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