Gardner

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

November 16, 1982

MEMORANDUM FOR: James E. Foster, Acting Director, Office of Investigations, Chicago Field Office

FROM: Robert F. Warnick, Acting Director, Office of Special Cases

SUBJECT: ALLEGATIONS RE: COMSTOCK QC AT MIDLAND - DOCKET NO. 50-329; 50-330 (FO3013482)

The attached allegations regarding Comstock QC at the Midland site have been reviewed by this office. Each of the specific allegations has been entered in the Region III Tracking System.

It is our understanding that a followup inspection to resolve these allegations will be initiated at the same time OI personnel look into other concerns brought forth by this alleger.

The Office of Special Cases considers the AITS closed and responsibility for the investigation to be with OI.

R F Warnick

R. F. Warnick, Acting Director
Office of Special Cases

Attachment: As stated

cc w/o attachment:
C. E. Norelius

DO NOT DISCLOSE
Contains identity of confidential source

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

05/10/84

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#01-01	INDIVIDUAL A (166)	ALLEGATION	MIDLAND 1			GARDNER	83-03
		HE HAS PERSONALLY SEEN CIRCUMSTANCES THAT SUGGEST HEAVY ALCOHOL CONSUMPTION BY WORKERS ON THE JOB. PLANT WORKERS ARE PURCHASING ALCOHOLIC BEVERAGES AT OWENS PARTY STORE WHILE ON THEIR WAY TO WORK.					
329/82#01-02	INDIVIDUAL A	ALLEGATION	MIDLAND 1			GARDNER	83-03
		PLANT WORKER INFORMED ME THAT SOME TRUCKERS, FOR 50 DOLLARS, WILL PICK UP ANYTHING IN THE PLANT THEY CAN CARRY-PIPING, TOOLS, WELD ROD, MATERIAL, ETC.-AND DELIVER TO -URCHASERS RESIDENCE. HE SAYS THIS IS COMMON KNOWLEDGE.					
329/82#01-03	INDIVIDUAL A	ALLEGATION	MIDLAND 1			GARDNER	83-03
		OTHER EMPLOYEES HAVE TOLD ME THAT MIDLAND WORKERS MANUFACTURE PIPES AND BELT BUCKLES OUT OF NUCLEAR MATERIAL WHILE THEY ARE IDLE ON THE JOB. I HAVE PERSONALLY SEEN SUCH AROUND TOWN.					
329/82#01-04	INDIVIDUAL A	ALLEGATION	MIDLAND 1			GARDNER	83-03
		THE CONTROL ROOM HAS BEEN PLAGUED WITH RIPPED OUT WIRES, CUT CABLES, AND SPLATTERED PAINT.					
329/82#01-05	INDIVIDUAL A	ALLEGATION	MIDLAND 1			GARDNER	83-03
		GAMBLING IS WIDESPREAD INVOLVING GENERAL FOREMEN WHO RUN POOLS OF UP TO 100 DOLLARS PER MEMBER ON GAMES SUCH AS SPORTSCORE. HE HAS HEARD THAT GENERAL FOREMEN RECEIVE A CUT OF THE OPERATION. HE IS FEARFUL THAT GOOD WORKERS WILL BE RETALIATED AGAINST BECAUSE OF A BAD DEBT CAUSING CONFLICTS WITH PLANT CONSTRUCTION QUALITY.					

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#01-06	INDIVIDUAL A	ALLEGATION A BECHTEL INSPECTOR WHO WAS THE NEIGHBOR OF A RELATIVE MADE INTERNAL CHALLENGES TO PLANT CONSTRUCTION AND WAS REBUFFED. THE INSPECTOR LEFT BECHTEL AND AFTER RETURNING SEVERAL YEARS LATER HE STATED CONSTRUCTION WAS STILL STYMIED BY THE SAME DEFECTS THAT HAD BEEN PRESENT TWO YEARS EARLIER.	MIDLAND 1			GARDNER	83-03
329/82#01-07	INDIVIDUAL A	ALLEGATION CONSUMERS IS MAKING REPAIRS PREMATURELY BEFORE OBTAINING NRC APPROVAL.	MIDLAND 1			GARDNER	83-03
329/82#01-08	INDIVIDUAL A	ALLEGATION AN ELECTRICIAN SAID THAT HE HAS TO DO THE SAME WORK OVER AND OVER. I HAVE BEEN INFORMED THAT THE WRONG SIZE CONDUITS WERE INSTALLED. THEY HAD TO BE RIPPED OUT AND REPLACED WITH LARGER CONDUITS.	MIDLAND 1			GARDNER	83-03
329/82#01-09	INDIVIDUAL A	ALLEGATION I HAVE BEEN TOLD THAT MANY WORKERS SHOVE THEIR GARBAGE IN PIPES AND THEN LATER CLOSE THE PIPES UP WITH THE GARBAGE STILL THERE.	MIDLAND 1			GARDNER	83-03
329/82#02-01	INDIVIDUAL H (167)	ALLEGATION CONCERNS ABOUT STATEMENTS OVERHEARD BETWEEN NRC PERSONNEL AND CPCO ATTORNEYS WHILE IN THE LOBBY OF THE MIDLAND COUNTY COURTHOUSE DURING THE OCTOBER 15, 1981 ASLB HEARINGS. TOOK NOTES ON THESE STATEMENTS. (OIA)	MIDLAND 1			GARDNER	84-03

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#03-01	INDIVIDUAL C (135)	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		I SAW HEAVY DRINKING AROUND THE HOLIDAYS AT THE POSEYVILLE LAYDOWN AREA. ROUTINELY WORKERS GO DOWN TO OWENS PARTY STORE AT LUNCH AND GET BEER. AT LUNCH SOME WORKERS ALSO SMOKED GRASS. THIS ITEM CLOSED BASED ON AUGUST 4, 1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 7-8). INDIVIDUAL C'S SWORN STATEMENT SENT TO OI ON AUGUST 30,1983. THE INDIVIDUAL WAS UNABLE TO PROVIDE DETAILS OF HOW THE CONCERN IMPACTED SAFETY RELATED CONSTRUCTION ACTIVITIES.					
329/82#03-02	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		PIPEFITTERS HAD HELTHUCKLES CONSTRUCTED FROM STAINLESS STEEL PIPE AND WELDING RODS. SOME WERE MANUFACTURED IN THE COMMO SHOP. A WORKER FROM THE AUXILIARY BUILDING MADE BARBECUE SKEWERS. YOU COULD GET ALMOST ANYTHING YOU WANTED IF YOU KNEW THE RIGHT PEOPLE. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGE 10). THE INDIVIDUAL WAS UNABLE TO PROVIDE DETAILS OF HOW THE CONCERN IMPACTED SAFETY RELATED CONSTRUCTION ACTIVITIES.					
329/82#03-03	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		THERE WAS A LOT OF GOOFING OFF BY WORKERS AT THE PLANT. WORKERS WERE SLEEPING ON THE JOB. I HEARD RUMORS THAT SOME WORKERS WOULD WALK AROUND WITH THE SAME PLANK ALL DAY LONG IN ORDER TO LOOK BUSY. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGE 11). THE INDIVIDUAL WAS UNABLE TO PROVIDE DETAILS OF HOW THE CONCERN IMPACTED SAFETY RELATED CONSTRUCTION ACTIVITIES.					

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329/82*03-04	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

IN 1979 THE ZACK BLUEPRINTS AND DRAWINGS WERE IN HORRIBLE CONDITION. MOST OF THE ZACK QUALITY CONTROL PROCEDURES FOR CONTROLLING DRAWINGS WERE NOT FOLLOWED. DRAWINGS AND DRAWING REVISIONS WERE NOT PROPERLY CONTROLLED. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGE 12-29) AND SECTIONS II AND III OF REPORT 83-08. (ONE VIOLATION).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82*03-05	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

I NOTICED THAT SOME CONSTRUCTION MODIFICATIONS WERE DONE BEFORE THE CHANGES HAD BEEN APPROVED. THIS OFTEN INVOLVED HANGER DESIGN CHANGES. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 29-33).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82*03-06	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

PROBLEM WAS IDENTIFIED IN 1979 CONCERNING MATERIAL TRACEABILITY. I WAS REVIEWING A BLUEPRINT AND SAW THAT A DUCT REQUIRED A PITTSBURGH SEAM. NEITHER THE ZACK PROJECT MANAGER NOR THE FOREMAN KNEW WHAT A PITTSBURGH SEAM WAS. IT WASN'T BEING USED. THE FOREMAN AND THE PROJECT MANAGER TOLD ME TO DROP THE SUBJECT BECAUSE THEY WOULD TAKE CARE OF IT. I DON'T KNOW IF THEY EVER DID. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 33-37). PITTSBURG SEAM WAS NOT USED IN SAFETY RELATED APPLICATIONS.

ITEM NO./ RESPONSE DUE	INSPECTION/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82*03-07	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

QC WAS SUPPOSED TO CONDUCT INDEPENDENT INSPECTIONS OF INSTALLED HVAC UNITS TO VERIFY THAT UNITS NOT YET INSTALLED WERE KEPT COVERED AND CLEAN AS REQUIRED. INSTEAD WE JUST COPIED THE MAINTENANCE SUPERVISOR'S RECORDS WITHOUT PERFORMING INSPECTIONS. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 37-50).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

329/82*03-08	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

ZACK WELDERS STARTED DOING ARC-BRAZING WELDS BEFORE A PROCEDURE WAS DEVELOPED TO COVER BRAZING REQUIREMENTS OR WELDER QUALIFICATION REQUIRMENTS FOR BRAZING. QC DID STOP THE WORK AND PUT HOLDS ON ALL WORK ALREADY DONE. FINALLY ZACK CAME UP WITH A PROCEDURE AND HAD THE WELDERS TESTED AND QUALIFIED. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 50-55) AND REPORT 83-08 SECTIONS I AND II.

329/82*03-09	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

THERE WERE MANY BAD WELDS IN THE CONTROL ROOM CLASS 1 HVAC DUCTWORK WITH DEFECTS SUCH AS BLOW HOLES AND EXCESSIVE POROSITY. SOME WELDS WERE BARELY ACCESSIBLE, IF AT ALL. I DON'T KNOW IF, OR HOW, THEY WERE ALL RECHECKED. QC INSPECTORS FOUND FIVE OR SIX BAD WELDS ON ONE PIECE OF DUCTWORK. THE FOREMAN DIDN'T WANT TO CUT THE PART OUT AND REPLACE IT BECAUSE THAT WOULD BE TOO MUCH WORK. I DON'T KNOW IF THE PIECE WAS EVER REPAIRED OR REPLACED. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 55-62) AND REPORT 83-08 SECTIONS I AND II.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

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329/82#03-10	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

IN THE EARLY SUMMER OF 1979 THERE WAS NO CONTROL OVER THE USE OF WELD RODS. WORKERS JUST GRABBED AS MANY RODS AS THEY WANTED BY THE HANDFUL AND DROPPED THEM OFF LATER. THERE WERE NO SIGN-INS OR SIGN-OUTS. INSPECTORS WOULD FIND THE RODS LYING IN THE FIELD ALONG WITH THE ROD STUBS AND HALF USED PIECES. THE WELD ROD CONTROL PROCEDURE WAS SUBSEQUENTLY REVISED AND ENFORCED. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 62-65) AND REPORT 83-08 SECTIONS II, III, AND V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

329/82#03-11	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

IN SOME CASES THE QC INSPECTORS SAID THERE WAS NO DOCUMENTATION THAT THE ANCHOR BOLTS FOR THE HVAC SYSTEM WERE EITHER TORQUED AT ALL OR TORQUED WITH A CALIBRATION TORQUE WRENCH. SOME OF THE BOLTS IN QUESTION WERE NO LONGER ACCESSIBLE. QC WENT BACK AND TORQUED AND DOCUMENTED AS MANY AS THEY COULD REACH BUT I DON'T KNOW WHAT HAPPENED TO THE REST. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 66-74) AND REPORT 83-08 SECTIONS I & II.

329/82#03-12	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

A QC MANUAL WAS SO VAGUE IT WAS USELESS. THE MANUAL WAS REVISED IN OCTOBER 1979. I DO NOT KNOW IF THE PREVIOUS INSPECTION REPORTS DONE UNDER UNRELIABLE QC INSPECTION STANDARDS WERE RECHECKED TO SEE IF THE EARLIER TESTS HAD MISSED PROBLEMS. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 74-77) AND REPORT 83-08 SECTIONS II, III AND V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#03-13	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

I WAS INFORMED THAT THE TESTING PROCEDURES UNDER WHICH INSPECTORS WERE QUALIFIED WERE NOT GOOD ENOUGH TO COVER THE KEY SKILLS. I UNDERSTAND THAT THE REQUIREMENTS HAVE BEEN REVISED, BUT AGAIN, UNQUALIFIED INSPECTORS MAY HAVE MISSED QUALITY FLAWS FOR A LONG TIME. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 77-84) AND REPORT 83-08 SECTIONS II, III, AND V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

329/82#03-14	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

DUE TO SCHEDULING PRESSURES NONCONFORMING HVAC DUCTWORK WAS INSTALLED IN THE PLANT. THE ZACK CHICAGO QA MANAGER AND VICE PRESIDENT SAW THE DUCTWORK AND LET IT GO TO THE FIELD. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 84-94) AND REPORT 83-08, SECTIONS I, II, III, IV, V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

329/82#03-15	INDIVIDUAL C	ALLEGATION	MIDLAND 1			HAWKINS	83-08

THERE IS STRONG RESENTMENT AGAINST BECHTEL AND ZACK QC AT MIDLAND. INSPECTORS ARE REFERRED TO AS TROUBLEMAKERS OR AS A JOKE. QC SUPERVISOR FORCED OUT AFTER TRYING TO MAKE QC STRONGER. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 94-97).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

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329/82#04-01	INDIVIDUAL D (136)	ALLEGATION	MIDLAND 1			GARDNER	83-10
		DURING INSTALLATION OF THE SWITCHGEAR IN THE BATTERY ROOMS ON THE 614 ELEVATION WE WERE UNABLE TO OBTAIN MINIMUM ANCHOR BOLT IMBEDMENT BECAUSE OF REINFORCEMENT ROD INTERFERENCE. THE STANDARD PROCEDURE TO RECEIVE QC WAS TO ADD THREADS TO AN ANCHOR BOLT. CUT IT OFF. AND DRESS IT UP WITH A GRINDER. THIS INSTANCE WAS NOT UNIQUE.					
329/82#04-02	INDIVIDUAL D	ALLEGATION	MIDLAND 1			GARDNER	83-10
		I HAVE SEEN WORKERS AND SUPERVISORS THROW PEANUT SHELLS. ORANGE PEELS. BANANA PEELS. OR WAXED PAPER INTO 2 INCH AND SMALLER PIPES.					
329/82#04-03	INDIVIDUAL D	ALLEGATION	MIDLAND 1			GARDNER	83-10
		IT IS MY BELIEF THAT THE ACTUAL CONTROL ROOM IS SIMPLY NOT LARGE ENOUGH TO PROVIDE ADEQUATE WORK SPACE FOR A FULL CONTROL ROOM CREW.					
329/82#04-04	INDIVIDUAL D	ALLEGATION	MIDLAND 1				
		IN THE CABLE CUT SHOP WE WERE FREE TO SUBSTITUTE A SIMILAR TYPE OF CABLE FOR A TYPE THAT WAS UNAVAILABLE OR OUT OF STOCK. THESE SUBSTITUTE CABLES WERE NOT SPECIFIED IN THE BLUEPRINTS. SUCH SUBSTITUTIONS ARE ROUTINELY MADE WITHOUT CONSULTATION AND WITHOUT REGARD TO THE PURPOSE. LOCATION OR OPERATION IN WHICH THE CABLE IS USED.					
329/82#04-05	INDIVIDUAL D	ALLEGATION	MIDLAND 1				
		I FOUND THAT MANY CONDUITS SUPPORTS HAD BEEN IN PLACE AND WERE SUPPORTING WEIGHT GREATER THAN PERMITTED BY SPECIFICATIONS. QC INSPECTORS WERE AWARE OF THE PROBLEM BUT MAINTAIN THAT THIS WAS BECHTELS RESPONSIBILITY AND IF BECHTEL HAD APPROVED THE HANGER THE QC STAFF WOULD NOT WRITE AN NCR. THERE WAS NO MECHANISM TO INSURE THAT THE ELECTRICAL CONDUITS WERE CORRECTLY INSTALLED AND SUPPORTING ONLY LOADS ALLOWED BY SPECIFICATIONS.					

ITEM					RESOLUTION	
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329/82#04-06	INDIVIDUAL D	ALLEGATION	MIDLAND 1			OI	
		IT IS MY BELIEF THAT MY TERMINATION WAS A DIRECT RESULT OF MY COMMUNICATION TO THE NRC.					
329/82#04-07	INDIVIDUAL D	ALLEGATION	MIDLAND 1				
		HE OBSERVED THE IMPROPER INSTALLATION AND USE OF THE TYPE 30 CONDUIT SUPPORTS WHICH ARE ATTACHED TO THE FLANGES OF STEEL I-BEAMS.					
329/82#04-08	INDIVIDUAL D	ALLEGATION	MIDLAND 1				
		OUT OF THE 12 INSPECTORS I WORKED WITH, ONLY ONE COULD BE CONSIDERED EVEN MARGINALLY COMPETENT OR QUALIFIED.					
329/82#04-09	INDIVIDUAL D	ALLEGATION	MIDLAND 1				
		WHEN HE TRIED TO BRING QC COMPLAINTS TO THE ATTENTION OF HIS FOREMAN, GENERAL FOREMAN, AND SUPERINTENDENT HE DID NOT GET ADEQUATE SUPPORT. HE WAS TOLD THAT IT WAS NOT HIS JOB TO POINT OUT VIOLATIONS.					
329/82#05-01	INDIVIDUAL E (137)	ALLEGATION	MIDLAND 1				
		IT IS MY PROFESSIONAL OPINION THAT THE MIDLAND PLANT IS THE WORST NUCLEAR FACILITY I HAVE EVER SEEN.					
329/82#05-02	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		BECHTEL HAS HIRED ENGINEERS AND QC INSPECTORS WHO ARE NOT ADEQUATELY QUALIFIED OR TRAINED FOR THE COMPLICATED WORK IN A MODERN NUCLEAR PLANT.					

ITEM NO./ RESPONSE DUE	INSPECTION/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
		ITEM				RESOLUTION	
329/82#05-03	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		I HAVE SEEN BECHTEL PERSONNEL, BOTH QC INSPECTORS AND ENGINEERS WITH QC RESPONSIBILITIES, ROUTINELY ACCEPT SUBSTANDARD WORK.					
329/82#05-04	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		NRC FIELD INSPECTORS SHOWED A SURPRISING WILLINGNESS TO LET THE BECHTEL PERSONNEL DO ALL THE DIRTY WORK INVOLVED IN SUPPOSEDLY INDEPENDENT INVESTIGATIONS. IN THE AREA OF THE INSIDE WALL CORROSION IN SMALL BORE PIPING IT WAS GENERALLY THE BECHTEL PEOPLE WHO ACTUALLY CLIMBED AROUND ON THE PIPING AND CALLED OUT THE MEASUREMENTS TO THE NRC. AS A RESULT, MANY OF THE INSPECTION REPORTS DO NOT REFLECT ANYTHING MORE THAN BECHTEL'S ASSERTIONS.					
329/82#05-05	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		BECHTEL HAD ESTABLISHED STANDARDS WHICH FELL BELOW THOSE OF THE ASME CODE. THERE IS AN INTER-OFFICE MEMO DATED APRIL 24, 1981 CONCERNING SOCKET WELD ENGAGEMENT LENGTH. THE MEMO 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. THESE GAPS WEAKEN THE JOINT.					
329/82#05-06	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		THERE ARE MANY SHEET-MEMOS PLACED IN THE SPECIFICATIONS BOOK WHICH DOWNGRADE THE WELDING STANDARDS.					
329/82#05-07	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		BECHTEL HAS HIRED INEXPERIENCED ENGINEERS, WELDERS AND INSPECTORS WHO WERE NOT PROPERLY TRAINED. WHEN INSPECTORS AND ENGINEERS DON'T KNOW HOW TO USE A FILLET GAUGE TO MEASURE WELDS YOU KNOW THAT THE OVERALL PROGRAM STANDARDS CANNOT BE VERY HIGH AND A COMPLETE INVESTIGATION IS WARRANTED.					

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329/82#05-08	INDIVIDUAL E	ALLEGATION	MIDLAND 1				

HECHTEL HAD ESTAHLISHED STANDARDS WHICH FELL HELOW THOSE OF THE AMERICAN WELDING SOCIETY. HECHTEL ALLOWED LOW-HYDROGEN ELECTRODES USED IN WELDING TO BE TAKEN OUT OF THEIR HOT OVENS OR HERMETICALLY-SEALED CONTRAINERS FOR UP TO EIGHT HOURS HEFORE USE. THE AWS STANDARD ALLOWS ONLY 4 HOURS MAX. IN THE OPEN AIR

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329/82#05-09	INDIVIDUAL E	ALLEGATION	MIDLAND 1				

HE OHSERVED ONE QC INSPECTOR ABOUT TO APPROVE A FILLET WELD THAT HAD NOT HEEN FULLY WELDED. HE CONVINCED THE INSPECTOR THAT HE WAS RIGHT HUT THE WELDER REFUSED TO PUT ANY MORE WELD ON. THE WELDER SAID HE HAD HEEN DOING IT THAT WAY FOR TWO YEARS AND HIS HOSS HAD ALWAYS APPROVED IT. ANOTHER QC INSPECTOR HEARD HIS EXPLANATIONS AND ADMITTED THAT HE HAD HEEN APPROVING HAD WELDS HIMSELF.

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329/82#05-10	INDIVIDUAL E	ALLEGATION	MIDLAND 1				

HE DISCOVERED THAT MANY WELDS IN THE HIGH PRESSURE PIPING HAD HEEN IMPROPERLY GROUND DOWN. GRINDING DOWN THE PIPE WALL THICKNESS ALONG WITH IT.

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329/82#05-11	INDIVIDUAL E	ALLEGATION	MIDLAND 1				

HE PERFORMED AN INSPECTION OF SMALL HORE PIPING AND DISCOVERED EXTENSIVE CORROSION. HECHTEL QC REPORTS FAILED TO REFLECT THE PROHLEMS WHICH HE DISCOVERED. WHILE HECHTEL QC INSPECTORS USUALLY RELIEF ON VISUAL INSPECTIONS ONLY, HE TOOK WHAT IS CALLED THICKNESS AND MATERIALS READINGS. HE CONTENDS THAT VISUAL INSPECTIONS CAN DETECT CORROSION ONLY ON THE OUTSIDE OF THE PIPING.

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329/82#05-12	INDIVIDUAL E	ALLEGATION	MIDLAND 1				

ONE QC ENGINEER, WHO HAS HEEN AT MIDLAND SINCE THE HEGINNING, TOLD ME THAT OVER 90% OF THE PIPING IN THE ENTIRE PLAN HAS HAD TO HE CUT OUT AND REPLACED AT ONE POINT OR OTHER.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION: INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
329/82#05-13	INDIVIDUAL F	ALLEGATION	MIDLAND 1				
		NRC INSPECTORS ARE HANDICAPPED BY THEIR PRACTICE OF NOT COMING IN UNANNOUNCED. TO THE BEST OF HIS KNOWLEDGE, THERE WERE NO NRC INSPECTIONS THAT WEREN'T PRECEDED BY TWO OR THREE DAYS OF PREPARATION DIRECTED BY BECHTEL, DURING WHICH, PROBLEMS WOULD BE REPAIRED AND SOMETIMES CONCEALED.					
329/82#05-14	INDIVIDUAL E	ALLEGATION	MIDLAND 1				
		HE BELIEVES THAT HE WAS TERMINATED FOR INSISTING THAT THERE WERE SERIOUS PROBLEMS AT MIDLAND WHICH SUPERVISORS REFUSED TO ACKNOWLEDGE. HE REQUESTED A COMPLETE INVESTIGATION BY THE SAN FRANCISCO HOME OFFICE.					
329/82#06-01	INDIVIDUAL F (138)	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		IN THE INTRODUCTION TO THE INVESTIGATION (NRC INSPECTION REPORT ON ZACK) THE LIST OF DOCUMENTS APPLICABLE TO THE HVAC ACTIVITIES FAILED TO INCLUDE THE AMERICAN WELDING SOCIETY (AWS) D-19 CODES REFERENCING THE WELDING OF GALVANIZED STEEL. HE BELIEVES THAT THIS SHOULD HAVE BEEN CHECKED BECAUSE THE AWS CODES PROVIDE THE GALVANIZED STEEL WELDING REQUIREMENTS THAT SHOULD HAVE BEEN ENFORCED. CLOSED IN REPORT 83-08 (REFERENCE INTRODUCTION SECTION AND SECTION I) IND. F. WAS NOT SATISFIED WITH THE RESULTS OF 80-10; 80-11, CLOSEOUT AND RESOLUTION OF CONCERNS ARE DOCUMENTED IN REPORTS 80-21,80-22; 80-22, 80-23; 80-23, 80-24; 80-26, 80-27; AND 82-15, 82-15. INDIVIDUAL F'S AFFIDAVIT SENT TO OIA ON AUGUST 9,1983.					
329/82#06-02	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE BELIEVES THAT THERE IS SOMETHING SIGNIFICANTLY MISSING IN THE DISCUSSION OF ALLEGATION ONE (NRC INSPECTION REPORT ON ZACK) ABOUT THE TRAVELERS FROM CHICAGO NOT BEING ANNOTATED TO SHOW WHETHER OR NOT THEY WERE SCRAP. HE DISCOVERED THAT ALL SCRAPPED PARTS WERE NOT ACTUALLY DISCARDED. HE BELIEVES THAT MEANT THAT EVEN DEFECTIVE PARTS WERE BEING USED TO BUILD THE PLANT. RESOLUTION SAME AS 82#06-01.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#06-03	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		IN THE FINDING OF ALLEGATION ONE HE HAS SIGNIFICANT DISCREPANCIES WITH THE INVESTIGATORS. TO THE BEST OF HIS KNOWLEDGE THE INITIALING OF THE LEFT-SIDE OF THE TRAVELER WAS NEVER A PART OF THE QC PROCEDURE UNTIL AFTER HE INITIATED THE ORIGINAL ALLEGATIONS. HE BELIEVES THE POST-INITIALING OF THE TRAVELERS DOES NOT CONSTITUTE A CONFIRMATION OF CURRENT ACCURACY IN THE TRAVELERS. RESOLUTION SAME AS #2#06-01.					
329/82#06-04	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE BELIEVES THAT CONTRARY TO THE NRC INSPECTION REPORT ON ZACK, CHICAGO PAINTED WELDS WERE COMPLETELY COVERED WITH THICK PAINT AND THAT THE PAINT OR LACK OF IT WAS A RELIABLE FACTOR IN DETERMINING THE SITE OF FABRICATION AND QUESTIONABLE DUCT PIECES. HE BELIEVES THIS MEANS THAT ZACK WAS ABLE TO MAKE PIECES AT THEIR LEISURE WITHOUT TRACEABILITY OR QC INSPECTIONS. RESOLUTION SAME A #2#06-01.					
329/82#06-05	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE BELIEVES THAT ANOTHER SPECIFIC EXAMPLE OF OVERSIGHT IN THE NRC INSPECTION REPORT ON ZACK IS THE LACK OF FINDING FOR TRAVELER NUMBER V03-42R-F10171. HE CONTENDS THAT IT IS DIFFICULT TO UNDERSTAND WHY THE NRC WOULD ACCEPT THE WORD OF ZACK OVER THE BLACK AND WHITE DOCUMENT PROVIDED OT THEM. HE ALSO QUESTIONS WHETHER THE ITEM V03-SM2-2-F9437 WAS ACTUALLY PHYSICALLY SCRAPPED AND THE DATE IT WAS SCRAPPED. RESOLUTION SAME AS #2#06-01.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#06-06	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		CONCERNING THE FINDING ON ALLEGATION NUMBER 4 PERTAINING TO TRAVELER NUMBER V27-SH3A-29-F4410 (NRC INSPECTON REPORT ON ZACK) HE CONTENDS THAT IN THE LIGHT OF ZACK'S RAMPANT MISLEADING STATEMENTS TO THE NRC AND CONSUMERS POWER CO., IT IS CURIOUS TO NOTE THAT NO FURTHER VERIFICATION WAS MADE, OTHER THAN A PAPERWORK REVIEW, TO INSURE THAT THE ITEM WAS IN FACT RETURNED. HE KNOWS PERSONALLY THAT THE ITEM WAS NOT RETURNED. RESOLUTION SAME AS #2#06-01.				
329/82#06-07	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		IT IS HIS UNDERSTANDING THAT CONSUMERS POWER COMPANY HAD DECIDED TO FORGET OR IGNORE THE UNRESOLVED ITEMS REFERENCED IN MCAR MD-1 (NRC INSPECTION REPORT ON ZACK). HE BELIEVES THAT A LETTER SENT TO ZACK FROM CPCO IN MID-FEBRUARY CONGRATULATING THEM ON A CLEAN BILL OF HEALTH AND AUTHORIZING ZACK TO CONTINUE UNFETTERED WITH THEIR OWN REPAIR PROGRAM, HE REMAINS UNCONVINCED THAT 100% OF ALL ZACK WELDS WERE REINSPECTED. RESOLUTION SAME AS #2#06-01.				
329/82#06-08	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		ON TRAVELER NUMBER V2A-SH2H-46.1-P1S1S HE DOES NOT SEE WHERE THE DEEPER PROBLEM EVIDENT FROM THE NRC FINDING IS ADDRESSED BY THE NRC INSPECTION REPORT ON ZACK. HE SAYS THAT IT APPEARS THAT ZACK OPERATED UNDER THE ASSUMPTION THAT FIELD TESTING FOR GAS TIGHTNESS WOULD PRECLUDE VISUAL INSPECTION. HE SAYS THIS IS NOT ALLOWED PER APPLICABLE CODES AND IT IS IMPOSSIBLE TO PERFORM 100% INSPECTION AFTER INSTALLATION. RESOLUTION SAME AS #2#06-01.				

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#06-09	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE HAS A SIGNIFICANT DISCREPANCY WITH ITEM 5(A) (ALLEGATION 5) IN NRC INSPECTION REPORT ON ZACK. IT IS PRACTICALLY IMPOSSIBLE TO HAVE THE IDENTICAL SAME MATERIAL AVAILABLE FOR ONSITE REPAIR AS FOR THE ORIGINATION OF THE ITEM. EVEN IF REPAIRS WERE EXACTLY ACCORDING TO PROCEDURE A DIFFERENCE WOULD COME WITH INDIVIDUAL WELDERS DOING THE REPAIRS. MATERIAL TRACEABILITY AND REQUIREMENT FOR REGULAR INSPECTORS AFTER CERTAIN PHASES OF REPAIR IS LOST. RESOLUTION SAME AS 82#06-01				
329/82#06-10	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE SAYS THAT IN ITS CONCLUSION OF FINDING FOR ALLEGATION 10 THE NRC BLATENTLY DISREGARDS THE REQUIREMENTS FOR MATERIAL TRACEABILITY AND DOCUMENTATION. (NRC INSPECTION REPORT ON ZACK). RESOLUTION SAME AS 82#06-01.					
329/82#06-11	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE SAYS THAT THE NRC WAS INCORRECT IN THE FINDING ON ALLEGATION 5(D) FOR WHICH CPCO PAID 3500 DOLLARS FOR NOT HAVING CARBON DIOXIDE AVAILABLE FOR USE AS A SHIELDED GAS. HE BELIEVES THAT CARBON DIOXIDE WAS ALWAYS AVAILABLE ON THE SITE. RESOLUTION SAME AS 82#06-01.					
329/82#06-12	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		REGARDING ALLEGATION 14 (NRC REPORT ON ZACK) HE SAYS THE NRC COMPLETELY FAILS TO ADDRESS THE FACT THAT ALL ASPECTS OF REPAIR ARE NOT DOCUMENTED WITH RESPECT TO INDIVIDUAL TRAVELERS. HE SAYS THAT A NONCONFORMANCE REPORT OR HOLD REPORT IN NO WAY SUBSTITUTES THE REQUIREMENT FOR NOTATION OF REPAIRS ON EACH COMPONENTS DOCUMENT. RESOLUTION SAME AS 82#06-01.					

ITEM NO./ RESPONSE DUE	INSPECTION/ MODULE NO.	ITEM TYPE/ ITEM DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#06-13	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		REGARDING ALLEGATION 13 HE HAS CONCERNS WITH STATEMENTS ABOUT THE WELDING ROD ISSUE ROOM (NRC REPORT ON ZACK). HE SAYS THAT THE ROOM WAS NOT LOCKED DURING THE MAJORITY OF THE TIME HE WORKED THERE. WELDING RODS WERE TAGGED ONLY AFTER NRC CAME TO INVESTIGATE HIS ALLEGATIONS. HE SEES OBVIOUS CONTRADICTIONS BETWEEN THE NRC'S OWN FINDING ABOUT THE WELDING ROD SITUATION, HIS PERSONAL OBSERVATIONS, AND WITH LATER NRC REPORT STATEMENTS. RESOLUTION SAME AS 82#06-01				
329/82#06-14	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE SAYS THAT THE NRC REPORT FAILED TO MENTION RON COOK'S STATEMENT TO HE THAT APPROXIMATELY 10,000 POUNDS OF NONCONFORMING 70-10 ROD HAD BEEN RECEIVED AND THAT THE ONLY EXPLANATION OFFERED BY ZACK WAS THAT THE ROD HAD ALL BEEN THROWN AWAY. HE DOES NOT CONSIDER THIS AN ACCEPTABLE RESPONSE TO ALLEGATION 15. RESOLUTION SAME AS 82#06-01.				
329/82#06-15	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		HE SAYS THAT THE NRC, IN THE PROBLEM SURROUNDING RUSKIN FIRE DAMPERS (ALLEGATION 16), FAILED TO REALIZE THAT REQUIRED INDIVIDUAL SERIAL NUMBERS ARE NON-EXISTENT ON THE ACTUAL FIRE DAMPERS. RESOLUTION SAME AS 82#06-01.				
329/82#06-16	INDIVIDUAL F	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		IN REGARDS TO ALLEGATION 20 HE FOUND NOTHING IN THE FINDING (NRC REPORT ON ZACK) FOR THIS ALLEGATION TO INDICATE THAT A CHECK WAS MADE TO ASSURE INACCURATE TRAVELERS WERE NOT BEING REPLACED ASIDE FROM ASKING THREE MENTIONED INSPECTORS. HE BELIEVES A SIMPLE REVIEW WOULD REVEAL THE CONTRARY. HE IS ALSO CONCERNED ABOUT MATERIAL TRACEABILITY OF NEW MATERIAL AND WELDER IDENTIFICATION. RESOLUTION SAME AS 82#06-01.				

ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ ITEM DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#06-17	INDIVIDUAL F	ALLEGATION REGARDING ALLEGATION 21. CONCERNING PORTABLE WELD ROD CARRIER CALIBRATION STICKERS. HE BELIEVES THAT THE FINDING (NRC REPORT ON ZACK) DID NOT REVEAL THE FACT THAT THE EQUIPMENT FOR CALIBRATION ANY OF THE CARRIERS WAS INSUFFICIENT. HE CONSIDERS ANY AND ALL SUCH UNITS TO THUS BE OUT OF CALIBRATION. RESOLUTION SAME AS 82#06-01.	MIDLAND 1			HAWKINS	83-08
329/82#06-18	INDIVIDUAL F	ALLEGATION HE SAYS THAT THE NRC REPORT ON ZACK DOES NOT MENTION HOW OR IF THE ANGLE IRON DIMENSION DISCREPANCIES FOR PART NUMBER F-916. VI-3 HAVE BEEN RESOLVED. RESOLUTION SAME AS 82#06-01.	MIDLAND 1			HAWKINS	83-08
329/82#06-19	INDIVIDUAL F	ALLEGATION HE SAYS THAT IN REGARDS TO ALLEGATION 18 THE NRC OVERLOOKED THE FACT THAT A COPY OF THE AUDIT TO BE PERFORMED WAS SENT TO MIDLAND SEVERAL DAYS BEFORE THE ACTUAL AUDIT TOOK PLACE. (NRC REPORT ON ZACK). RESOLUTION SAME AS 82#06-01.	MIDLAND 1			HAWKINS	83-08
329/82#07-01	INDIVIDUAL G (139)	ALLEGATION HE SAYS THAT RATS ARE EATING INSULATION ON THE ELECTRICAL CABLES IN THE REACTOR BUILDING.	MIDLAND 1			HARRISON	
329/82#07-02	INDIVIDUAL G	ALLEGATION HE SAYS THAT SALT MINES UNDER THE REACTOR SITE WILL EFFECT THE PLANT'S SEISMIC DESIGN.	MIDLAND 1			HARRISON	83-21
329/82#07-03	INDIVIDUAL G	ALLEGATION HOW MILLER HAS CONTROL OVER MPQAU WHICH RESULTS IN UNDUE PRESSURE BEING IMPOSED ON THEM.	MIDLAND 1			HARRISON	

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION: INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
329/82#07-04	INDIVIDUAL G	ALLEGATION	MIDLAND 1				

CONSUMERS POWER COMPANY FAILED TO REPORT INCORRECT PIPE STRESS CALCULATIONS TO THE NRC AS REQUIRED BY ITEM 6 OF IAL DATED MAY 22, 1981. APPROXIMATELY THREE WEEKS AFTER THE IAL ISSUANCE AN ENGINEER MISCALCULATED THE PIPE STRESS BY A FACTOR OF THREE. CONSUMERS POWER COMPANY NEVER REPORTED THIS INFORMATION TO THE NRC AS REQUIRED BY THE IAL.

329/82#07-05	INDIVIDUAL G	ALLEGATION	MIDLAND 1				

IN THE FOUR DAYS FOLLOWING THE ISSUANCE OF THE MAY 22, 1981 IAL NO EFFORTS WERE MADE OR WERE BEING MADE TO BRING THE PROJECT INTO COMPLIANCE ON PROCEDURES FOR FIELD MODIFICATIONS OF PIPING SUSPENSION BLUEPRINTS. CHANGES IN DESIGN, CALLED REDLINING, WERE BEING MADE WITHOUT THE REQUIRED CALCULATIONS.

329/82#07-06	INDIVIDUAL G	ALLEGATION	MIDLAND 1				

ON SEPTEMBER 8, 1982 CPCO WAS PROCEEDING WITH THE INSTALLATION OF NEW PIPING SYSTEMS ON TWO 60 HOUR PER WEEK SHIFTS. IN MY PROFESSIONAL OPINION, IT WOULD HAVE BEEN IMPOSSIBLE FOR CPCO TO HAVE COMPLETED THE WORK WHICH INSPECTOR YIN INDICATED SHOULD BE DONE IN THE NRC JULY 15, 1982 REPORT PRIOR TO SEPTEMBER 8, 1982.

329/82#07-07	INDIVIDUAL G	ALLEGATION	MIDLAND 1				

ITEM E OF THE AUGUST 21, 1981 REPORT REMAINS A PROBLEM DESPITE THE FACT THAT DON MILLER TOLD ME THAT IT HAD BEEN ACCOMPLISHED TWO DAYS AFTER NRC ISSUED THE REQUIREMENT.

329/82#08-01	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08

CONSUMERS POWER (MECHTEL) WAS NOTIFIED OF LACK INCONSISTENCIES BY LETTER DATED AUGUST 24, 1981 (7220-M-151). CALKINS TO DAVIS. RE: CORRECTIVE ACTION REQUEST (CAR) 014. (EXHIBIT 2). SEE REPORT NARR SECTION 1 FOR RESOLUTION (50.55(E) VIOLATION). INDIVIDUAL HAS AFFIDAVIT AND SWORN STATEMENT SENT TO OIA AND OI ON NOV. 9/81 AND AUG. 30,1983, RESPECTIVELY.

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#08-02	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		MIDLAND QA CONTRACT EMPLOYEE DIRECTED PERSONNEL TO SIGN TRAINING FORM. PERSONNEL CLAIMED THEY RECEIVED NO TRAINING. (EXHIBIT 5) (CHECK APPLICABILITY OF THIS TO ZACK SITE PERSONNEL). (EXHIBIT 5). SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS 2 AND 4 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-03	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		CATEGORIZATION OF MAJOR DISCREPANCIES IN INTERIM REPORT 10-02-81 TO BECHTEL (7220-M-151-C/B-548) ON 10-09-81 (EXHIBIT 6.A) AND (EXHIBIT 7). RESOLUTION SAME AS 82#08-01.					
329/82#08-04	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		THIRD INTERIM REPORT ON DISCREPANCIES (10-23-81) SENT TO BECHTEL 10-23-81 (7220-M-151-C/B-552). (EXHIBIT 8) PGS. 3, 6, 9, 12, AND 15. RESOLUTION SAME AS 82#08-01.					
329/82#08-05	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		QUESTIONABLE BECHTEL ENGINEERING ANALYSIS OF ZACK DISCREPANCIES, LETTER DAVIS TO GREENE, 12-21-81. (EXHIBIT 11). RESOLUTION SAME AS 82#08-01.					
329/82#08-06	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		INDIVIDUAL STATED THAT CALKINS HAD CALLED H. LEONARD AT MIDLAND (PG 14 OF AFFIDAVIT). RESOLUTION SAME AS 82#08-01.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#08-07	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		BECHTEL HAD KNOWLEDGE OF ZACK MATERIAL BEING SHIPPED TO THE SITE IN NONCONFORMING CONDITION. LETTER DAVIS TO EICHSTAEDT, 11-05-80 (EXHIBIT 15). RESOLUTION SAME AS 82#08-01.					
329/82#08-08	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		EXAMPLES OF FALSIFIED TEST REPORTS. ONE COPY PRIOR TO FALSIFICATION. ONE COPY AFTER. STICKERS WERE DATED 11-06-80 BUT REQUEST FOR U.S. STEEL TO UPGRADE TEST REPORTS NOT MADE BEFORE 01-23-81. (EXHIBIT 17) (EXHIBIT 18). SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 8,9, AND 10 FOR RESOLUTION. ALSO OI REPORT 3-82-025. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-09	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		U. S. STEEL LETTER PETERS TO HAGEN, 09-21-81, IDENTIFYING 26 PO'S THAT WERE NOT ORIGINALLY ORDERED "SAFETY-RELATED". (EXHIBIT 20). SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 11 AND RIII REPORT 83-08 SECTIONS IV AND V FOR RESOLUTION. NRC MATERIAL TESTING INCLUDED SIX SAMPLES OF U.S. STEEL MATERIAL. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-10	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		ZACK AUDIT OF EDGECOMB METALS IDENTIFIES UNACCEPTABLE QA PROGRAM (EXHIBIT 21). DETERMINE IF EDGECOMB PRODUCTS WERE USED AT MIDLAND. SEE ALSO EXHIBITS 43, NRC ID02. SEE REPORT 83-08 SECTIONS IV AND V. NRC MATERIAL TESTING INCLUDED 10 SAMPLES OF EDGECOMB MATERIAL. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#08-11	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		ZACK REMOVES DELTA SCREW (DS) COMPANY FROM APPROVED VENDOR LIST ON 10-20-81 (EXHIBIT 24); HOWEVER, 38 PO'S SENT TO DS DURING THE TIME THEY WERE SUPPOSEDLY REMOVED FROM LIST. (EXHIBIT 25). DETERMINE IF DS MATERIAL WAS USED AT MIDLAND. SEE REPORT C999000785/82-02 (RIV) ALLEGATIONS 7 AND 13 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-12	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		QUALIFICATIONS OF ZACK QA/QC PERSONNEL QUESTIONABLE (EXHIBIT 26). DETERMINE IF ZACK PERSONNEL AT MIDLAND ARE QUALIFIED. SEE REPORT C999000785/82-02 (RIV) ALLEGATIONS 2 AND 4 FOR RESOLUTION. ALSO REPORT 83-08 SECTIONS II AND III. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND C NSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-13	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		CERTIFICATION OF TEST RESULTS (EXHIBIT 27A) ENSURES MATERIAL ORDERED ON PO C-1253 WAS SUBJECT TO TESTING. PO C-1253 IS ON U.S.S. LIST AS NON SR (EXHIBIT 20). SEE REPORT C999000785/ 82-02 (RIV) ALLEGATION 11 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-14	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		ZACK PRESIDENT DOES QA REVIEW (EXHIBIT 27A AND B) 02-23-81. NOT TRAINED UNTIL 08-31-81 (EXHIBIT 28). SEE REPORT C999000785/ 82-02 (RIV) ALLEGATION 6 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#08-15	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		MIDLAND MEETING NOTES OF 11-03-81 (EXHIBIT 29). DETERMINE IF ALL COMMITMENTS WERE MET. RESOLUTION SAME AS 82#08-01.					
329/82#08-16	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		DELTA SCREW MATERIAL IDENTIFIED AS NONCONFORMING C4286-NCR Q-112, C4484-NCR-M-110. NO MARKS ON BOLTHEADS TO IDENTIFY MANUFACTURER. BECHTEL CLEARED FOR USE WITHOUT BASIS (EXHIBIT 20A, H, C). (EXHIBIT 31). AND (EXHIBIT 32). SEE REPORT C99900785/ 82-02 (RIV) ALLEGATION 7 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#08-17	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		REVIEW CPCO INVESTIGATION (APRIL 15, 1980) OF ALLEGERS' ALLEGATIONS FOR CREDIBILITY. SEE REPORT 83-08 (BACKGROUND AND METHODOLOGY SECTIONS AND AUGUST 30, 1983 LETTER TO OI FROM DE. THIS ITEM IS RELATED TO OI INVESTIGATIONS OF INDIVIDUALS WRONGFUL FIRING (3-82-057).					
329/82#08-18	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		DETERMINE IF WELDSTAR WAS INVOLVED IN SUPPLYING WELD MATERIAL TO MIDLAND. (EXHIBIT 41). IF SO, DETERMINE IF CERTS EXIST FOR MATERIAL PURCHASED IN 1978 OR PRIOR TO THAT DATE. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 10 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/82#08-19	INDIVIDUAL H	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		ZACK AUDIT IZC/81-7 (09-10-81) IDENTIFIES SIGNIFICANT QA BREAKDOWN (EXHIBIT 42). DETERMINE APPLICABILITY TO MIDLAND. RESOLUTION SAME AS 82#08-01. (BASIS FOR ZACK'S AUG.28, 1981 LETTER TO MIDLAND ON CERTIFICATION DEFICIENCIES).					
329/82#08-20	INDIVIDUAL H	ALLEGATION	MIDLAND 1			RIV	82-02
		REVIEW NRC Q111 WRITTEN ON C4406 FOR POSSIBLE FALSIFICATION AND APPLICABILITY TO MIDLAND (EXHIBIT 43, NRC ID 01). SEE REPORT C999007#5/82-02 (RIV) ALLEGATION 7 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/82#09-01	INDIVIDUAL I (141)	ALLEGATION	MIDLAND 1				
		IN ALMOST ALL OF THE AUXILIARY BUILDING STRUCTURAL STEEL HE INSPECTED THE PRIMER COATING WAS TOO THICK. THUS IT WAS NOT POSSIBLE TO DETERMINE THE ACCURACY OF THE THICKNESS OF THE TOP COAT. HE REPORTED THESE DISCREPANCIES TO THIS SUPERVISOR AND REFUSED TO SIGN OFF THE WORK BUT ANOTHER INSPCTOR DID SIGN. HE DOES NOT BELIEVE THAT AN NCR WAS EVER GENERATED. HE SUGGESTS THAT THE LINER PLATE COATINGS BE REVIEWED ALSO.					
329/82#09-02	INDIVIDUAL I	ALLEGATION	MIDLAND 1				
		IN INSPECTING WELDED LINER PLATE SYMMETRY AND SHAPE HIS ONLY TOOL WAS A CRUDE WOODEN TEMPLATE. THIS METHOD OF INSPECTION COMBINED WITH THE DIFFICULTY OF ACCESS TO THE UPPER PORTIONS LACKS SUFFICIENT ACCURACY TO MEASURE THE SHAPE TO THE GIVEN TOLERANCE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/82#09-03	INDIVIDUAL I	ALLEGATION	MIDLAND 1				
		ON SEVERAL OCCASIONS HE NOTICED CADWELDS WHICH HAD BEEN APPROVED BY OTHER INSPECTORS THAT DID NOT MEET THE CRITERIA "NO SLAG IN TAP HOLE". HE WAS NOT ABLE TO INSPECT ALL THE SPLICES WHICH WERE INSPECTED BY OTHERS AND HE FEELS CERTAIN THAT THERE ARE NONCONFORMING SPLICES IN PLACE.					
329/82#10-01	INDIVIDUAL J (142)	ALLEGATION	MIDLAND 1				
		GRINDING WHEELS USED IN POLISHING WELDS WERE NOT OF THE SAFETY GRADES REQUIRED BY NRC CODE.					
329/83#01-01	INDIVIDUAL K (020)	ALLEGATION	MIDLAND 1			COOK	
		OUT OF ALMOST 300 INSTALLED SNUBBERS IN UNIT 2 ONLY 20 TO 30 ARE PROPERLY PROTECTED BY COVERS.					
329/83#01-02	INDIVIDUAL K	ALLEGATION	MIDLAND 1			COOK	
		STAINLESS AND CARBON STEEL WELD RODS ARE BEING MIXED TOGETHER AND ARE NOT BEING STORED IN HEAT OVENS. WELDERS ARE PICKING THE WELD RODS RIGHT OFF THE FLOOR AND WELDING MATERIAL WITH THEM.					
329/83#02-01	INDIVIDUAL L (144)	ALLEGATION	MIDLAND 1			COOK	
		FOR YEARS THE NRC HAS BEEN COLLUDING WITH BECHTEL BY PROVIDING WARNINGS OF EXACTLY WHERE AND WHEN THE NRC WOULD CONDUCT ITS HARDWARE INSPECTIONS. A RECENT EXAMPLE OCCURRED IN JANUARY 1983.					
329/83#02-02	INDIVIDUAL L	ALLEGATION	MIDLAND 1			COOK	
		THERE WAS A SEVERE PROBLEM WITH THE QUALIFICATIONS FOR CERTAIN OF ITS QUALITY CONTROL INSPECTORS AND ENGINEERS. THEY WERE HIRED FROM THE SECRETARIAL POOLS, OR OFF THE STREETS. THERE WAS A SIMILAR PROBLEM WITH UNQUALIFIED ENGINEERS. IN MY OPINION THE LACK OF QUALIFIED PERSONNEL CONSTITUTED MISMANAGEMENT AND COMPROMISED THE QUALITY OF THE WORK.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#02-03	INDIVIDUAL L	ALLEGATION	MIDLAND 1			COOK	
		ANOTHER EXAMPLE INVOLVED BECHTELS PATTERN OF REASSIGNING WORKERS, AND PARTICULARLY GENERAL FOREMEN AND SUPERVISORS, BEFORE THEY COMPLETED THEIR ASSIGNMENTS. AS A RESULT, THE EXPERIENCE AND EXPERTISE OF THE PREVIOUS EMPLOYEES WERE LOST, AND A NEW MAN HAD TO BE BROKEN IN.					
329/83#02-04	INDIVIDUAL L	ALLEGATION	MIDLAND 1			COOK	
		THE EFFECT OF THE MISMANAGEMENT WAS UNNECESSARY REWORK AND COST OVERRUNS. DESIGN AND INSTALLATION ESSENTIALLY WERE DONE ON A TRIAL AND ERROR BASIS. THE SAME WORK WAS DONE OVER AND OVER. THIS HAS LED TO A TREMENDOUS AMOUNT OF UNNECESSARY OVERTIME.					
329/83#02-05	INDIVIDUAL L	ALLEGATION	MIDLAND 1			COOK	
		SOMETIMES THE GROSS WASTE OCCURRED FROM THROWING OUT GOOD MATERIALS OR PRACTICALLY GIVING THEM AWAY.					
329/83#02-06	INDIVIDUAL L	ALLEGATION	MIDLAND 1			COOK	
		ANOTHER PROBLEM ON-SITE WAS INTOXICATION THROUGH DRINKING AND SMOKING MARIJUANA ON THE JOB.					
329/83#03-01	INDIVIDUAL M (145)	ALLEGATION	MIDLAND 1			RIV	82-02
		CMTRS WERE ALTERED TO RESOLVE THE LACK OF PROPERLY REFERENCED STANDARDS AND MISSING AUTHENTICATION SIGNATURE. THESE DOCUMENT ALTERATIONS WERE IDENTIFIED IN THE INTERIM REPORTS LACK SUPPLIED TO THE UTILITIES FOR A SIGNIFICANT EVENT DISCLOSURE. HE WOULD RATHER CLASSIFY THE ALTERATIONS AS FORGERIES. SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS 8 AND 9 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/83#03-02	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		SCATTERED AND MISSING PURCHASE ORDERS AND RELATED DOCUMENTATION WERE CONTINUALLY INCLUDED IN THE PURCHASE ORDER FOLDERS WITHOUT BEING LOGGED INTO THE DOCUMENT CONTROL LOG BOOK AS REQUIRED. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 5 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#03-03	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		PURCHASE ORDERS WERE INCOMPLETE. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 11 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#03-04	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		INABILITY OF SUBTIER VENDORS TO SUPPLY MISSING INFORMATION. SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 6,7,10 AND 11 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#03-05	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		AN APPROVED VENDORS LIST THAT FAILED TO REFLECT ZACK'S PURCHASING PRACTICES. SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 12 AND 13 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#03-06	INDIVIDUAL M	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		THE PURCHASE ORDER FOR MATERIAL SUPPLIED TO MIDLAND WOULD READ LASALLE. SEE LASALLE REPORTS 373/82-51;374/82-18 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#03-07	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		AN OCTOBER 9, 1981 REPORT IDENTIFIED (1) ALTERED CERTIFICATIONS; (2) WHITE-OUT USED AND RETYPED; AND (3) HEAT NUMBERS ALTERED TO AGREE WITH CERTIFICATIONS. REFER TO REPORTS 83-08 SECTION 1, C99900785/82-02 (RIV) ALLEGATIONS 8 AND 9, AND OI 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#03-08	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		THE DOCUMENT CONTROL WAS SO POOR TRADITIONALLY THAT THE RECORDS HAD BEEN PILED ON FLOORS IN BOXES. EVEN AFTER THE DOCUMENT CONTROL CENTER HAD BEEN ESTABLISHED, UNAUTHORIZED PERSONNEL WERE REMOVING QUALITY DOCUMENTS WITHOUT SIGNING THEM OUT. REFER TO REPORT C99900785/82-02 (RIV) ALLEGATIONS 1 AND 5 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

REGION III TRACKING SYSTEM
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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83*03-09	INDIVIDUAL M	ALLEGATION	MIDLAND 1			RIV	82-02
		INTERIM REPORTS WERE PRODUCED ON A RUSH BASIS IN ORDER TO SHOW DOCUMENTED EVIDENCE THAT ZACK WAS IMPLEMENTING CORRECTIVE ACTION AND THAT THE UTILITIES COULD PROCEED WITH CONSTRUCTION. THESE INTERIM REPORTS WERE INACCURATE AND SHOULD HAVE BEEN CONTINUALLY REVISED TO REFLECT AN ACCURATE STATUS REPORT. SEE REPORTS C9900785/82-02 (RIV) ALLEGATION 16 AND 83-08 SECTION I (50.55(E)) FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83*03-10	INDIVIDUAL M	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		AN OCTOMER 23, 1981 REPORT ACCURATELY IDENTIFIED PROBLEMS WITH MATERIAL CERTIFICATIONS, IMPROPER ACCESS TO DOCUMENTS, AND UNAUTHORIZED DOCUMENT ALTERATIONS. RESOLUTION SAME AS 82*08-01.					
329/83*04-01	INDIVIDUAL N (146)	ALLEGATION	MIDLAND 1			RIV	82-02
		I HAD VIRTUALLY NO FORMAL TRAINING FOR MY WORK. SEE REPORT C9900785/82-02 (RIV) ALLEGATION 4 FOR RESOLUTION REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83*04-02	INDIVIDUAL N	ALLEGATION	MIDLAND 1			RIV	82-02
		REPRODUCED COPIES WERE NOT IDENTICAL TO THE ORIGINAL PO. DISCREPANCIES INCLUDED FREQUENT SPACES ON THE REPRODUCTIONS WHICH HAD BEEN WHITED-OUT AND SOMETIMES FILLED IN OVER AGAIN. SEE REPORT C9900785/82-02 (RIV) ALLEGATIONS 8 AND 9 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/83#04-03	INDIVIDUAL N	ALLEGATION	MIDLAND 1			RIV	82-02
		MANUFACTURERS DID NOT SEEM ESPECIALLY CAREFUL IN MONITORING THE EQUIPMENT PAPERWORK. ONE MANUFACTURER SENT US A TYPICAL CERTIFICATION FORM FOR SEVERAL LOTS OF WELDING MATERIAL, ALONG WITH A LETTER INDICATING THAT WE COULD FILL IN THE SPECIFICATIONS AND MATCH THEM UP WITH THE PO'S THEMSELVES. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 10 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#04-04	INDIVIDUAL N	ALLEGATION	MIDLAND 1			RIV	82-02
		COMMENTS CONCERNING POOR DOCUMENT CONTROL. REFER TO REPORT C999007B5/82-02 (RIV) ALLEGATIONS 1 AND 5 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#04-05	INDIVIDUAL N	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		DURING THE TIME I WORKED FOR ZACK, THE NRC DID NOTHING THAT I AM AWARE OF TO INSPECT ZACK PROCEDURES OR MONITOR THEIR QA PROGRAM. SEE LETTERS FROM RIII WHICH REFER THIS ISSUE TO OIA (DATED AUG.4,AND 31, 1983) FOR APPROPRIATE ACTION. THE LETTERS FOWARDED IND. M'S AFFIDAVIT AND SWORN STATEMENT AND IND. O'S AFFIDAVIT REGARDING SAME ISSUE. REPORT 83-08 REFERS TO ISSUES SENT TO OIA.					
329/83#05-01	INDIVIDUAL O (147)	ALLEGATION	MIDLAND 1			RIV	82-02
		COMMENTS REGARDING POOR DOCUMENT CONTROL. SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 1 AND 2 AND OI REPORT 3-82-025 FOR RESOLUTION. INDIVIDUAL O'S AFFIDAVIT FOWARDED TO OIA IN LETTER DATED AUGUST 9,1982. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM					RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#05-02	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		THERE WAS NO CONTROL OVER NUCLEAR PURCHASE ORDERS. AFTER I WAS FIRED I LEARNED THAT SOMEONE HAD GONE INTO SOME OF THE FILES TO FIX OR CORRECT THE VARIOUS PO'S. SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS 8 AND 9 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#05-03	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		COMMENTS REGARDING LACK OF FORMAL TRAINING. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 6 FOR RESOLUTION REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#05-04	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		TO THE BEST OF MY PERSONAL KNOWLEDGE A COMPLETE AUDIT IS STILL NOT FINISHED AT ZACK. (QA DOCUMENTATION). SEE REPORT C99900785/82-02 (RIV) ALLEGATION 16 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#05-05	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		A NUMBER OF THE CMTR'S I INSPECTED WERE ALTERED. SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS 8 AND 9 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/83#05-06	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		I WAS NOT QUALIFIED TO MAKE A RESOLUTION OR EXCUSE FOR PROBLEMS LIKE MISSING CERTIFICATIONS (CONCERNING NCRS SHE WAS FORCED TO WRITE). SEE REPORT C99900785/82-02 (RIV) ALLEGATION 4 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#05-07	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		IN LETTER FROM A SUB-TIER VENDOR CONCERNING MISSING CERTIFICATIONS OR SPECIFICATIONS THE VENDOR TOLD ZACK TO JUST FILL IN THE BLANKS. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 10 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#05-08	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			HAWKINS	83-03
		TO THE BEST OF MY KNOWLEDGE THERE WAS NEVER AN NRC INVESTIGATION AT THE ZACK SITE DURING MY EMPLOYMENT THERE. REPORT 83-08 REFERS TO AFFIDAVITS AND STATEMENTS WHICH WERE SENT TO OIA. REFER TO AUGUST 9,1983 LETTER FROM REGION III TO OIA.					
329/83#05-09	INDIVIDUAL 0	ALLEGATION	MIDLAND 1			RIV	82-02
		I ALSO BELIEVE THERE SHOULD BE A REVIEW OF ZACK WELDER QUALIFICATION RECORDS. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 3 AND RIII REPORTS 83-13;83-14,(COOK RELEASE OF ZACK WORK) FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#06-01	INDIVIDUAL P (148)	ALLEGATION	MIDLAND 1			GARDNER	84-03
		ALLEGATIONS CONCERNING GEOTECHNICAL DRAWING CONTROL AT THE BECHTEL COMPANY, ANN ARBOR, MICHIGAN. RIV REPORT					
329/83#07-01	INDIVIDUAL Q 47/149	ALLEGATION	MIDLAND 1			GARDNER	84-03
		AT THE MIDLAND NUCLEAR POWER PLANT, YOU BASICALLY HAVE A POORLY TRAINED, DEMORALIZED, FAMILY ORIENTED, AND UNCOMMITTED TO DUTY CONTRACT SECURITY FORCE.					
329/83#08-01	INDIVIDUAL R 53/150	ALLEGATION	MIDLAND 1			COOK	83-11
		UNQUALIFIED PERSONNEL AT MIDLAND INCLUDE LEO DAVIS, DICK SODERHOLM, CLARK ASH, AND ED ENTROKIN. REFER TO JUNE 27, 1983 LETTER TO SINCLAIR FROM KEPPLER. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#08-02	INDIVIDUAL R	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		ZACK ALSO DID NOT HAVE QUALIFIED PEOPLE FOR DESIGN WORK THEY WERE DOING. SEE REPORT 83-08 SECTION I FOR RESOLUTION (ATTACHMENT E TO REPORT 8308)					
329/83#08-03	INDIVIDUAL R	ALLEGATION	MIDLAND 1			COOK	83-11
		HE CLAIMS THAT ALL WORK ON ANY CONTRUCTION PROJECT BEYOND A CERTAIN LIMITED SIZE MUST BE DONE AS A MICHIGAN REGISTERED ENGINEER OR ARCHITECT. ALSO SEE REPORT 83-08 SECTION I AND JUNE 27, 1983 LETTER TO SINCLAIR FROM KEPPLER FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
329/83#08-04	INDIVIDUAL H	ALLEGATION	MIDLAND 1			COOK	83-11
		HE TOLD ME THAT A VERY GOOD WELDER QUIT THE PROJECT RECENTLY BECAUSE THE SCHEDULING WAS SO ERRATIC. SEE JUNE 27,1983 LETTER TO SINCLAIR FROM KEPPLER FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#09-01	INDIVIDUAL S (151)	ALLEGATION	MIDLAND 1			COOK	
		ALLEGATIONS REGARDING THEFT - BIG WIDE MOUTH THERMOS BOTTLES, FALSE BOTTOM COOLERS, AND REGULAR THERMOS BOTTLES. THIS IS PETTY TO WHAT IS BEING TAKEN OUT BY TRUCK, FOR EVERYONE FROM TOMMY DAVIS AND HIS STAFF RIGHT ON DOWN TO THE COMMON WORKER.					
329/83#09-02	INDIVIDUAL S	ALLEGATION	MIDLAND 1			COOK	
		ONE WORKER GATHERED TOOLS AND TOOL BUCKETS DURING THE DAY AND PLACED THEM IN A PICKUP SPOT FOR THE MAN ON THE NIGHT SHIFT TO TAKE OUT ON THE BECHTEL TEAMSTER TRUCK AT NIGHT. HIS NAME IS COOK.					
329/83#09-03	INDIVIDUAL S	ALLEGATION	MIDLAND 1			COOK	
		SEVERAL GRINDERS HAVE BEEN TAKEN BY RANDY FAYER & ED WARDWELL. HOSS CARTWRIGHTS GARAGE IS FULL OF TOOLS FROM H&W. SO IS SUCK WARDWELLS. ROY YEAGER TOOK TOOLS INCLUDING GRINDERS, WELDING TORCH AND OTHER THINGS. THE PURCHASING PERSON, ROSCOE VASCIO OR SOMETHING LIKE THAT HAD STUFF DELIVERED TO HIS HOUSE.					
329/83#09-04	INDIVIDUAL S	ALLEGATION	MIDLAND 1			COOK	
		PEOPLE WHO HAVE NEVER EVEN SEEN A NUCLEAR POWER HOUSE BEFORE IN THEIR LIFE ARE IN POSITIONS OF FOREMAN, GENERAL FOREMAN, SUPERINTENDENTS, JOB STEWARDS, AND OTHER POSITIONS THAT THEY HAVE NO QUALIFICATIONS FOR AT ALL.					

ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#10-01	INDIVIDUAL T (051)	ALLEGATION ONE OF THE UNDERPINNING PIERS IS SINKING MORE THAN ANTICIPATED.	MIDLAND 1			LANDSMAN	83-13
329/83#11-01	INDIVIDUAL U 69/152	ALLEGATION THERE IS NO TRACEABILITY FOR TOIA LINCOLN ELECTRODE TO THE LOCATION OF CONSUMPTION.	MIDLAND 1			GARDNER	84-03
329/83#11-02	INDIVIDUAL U	ALLEGATION PROJECT QUALITY CONTROL INSTRUCTIONS #HICH HE HAD IN HIS POSSESSION CONTAINED MISTAKES.	MIDLAND 1			GARDNER	84-03
329/83#12-01	INDIVIDUAL V (153)	ALLEGATION #E HAD ADVANCE KNO#LEDGE OF NRC INSPECTIONS AND #ERE TOLD TO DO THE JOB BY THE BOOK #HILE THEY #ERE AT THE PLANT. AT OTHER TIMES PROCEDURES VARIED IN ORDER TO MEET TIME LIMITS.	MIDLAND 1			COOK	
329/83#12-02	INDIVIDUAL V	ALLEGATION IN SOME INSTANCES QC INSPECTORS WOULD SIGN OFF ON THE WORK DESPITE ITS NOT HAVING BEEN DONE IN THE CORRECT SEQUENCE. AS A RESULT, QC INSPECTORS COULD NOT CHECK THE THICKNESS OR TAPER ON A BEVEL, INSPECT THE CLEANLINESS OF A PIPE'S INTERIOR, OR VERIFY THAT A PIPE HAD THE PROPER HEAT NUMBER ON IT.	MIDLAND 1			COOK	
329/83#13-01	INDIVIDUAL W (154)	ALLEGATION RESUMES OF SOME OF THE PERSONNEL SUPPLIED UNDER CONTRACT TO H A W BY BARCLAY WERE FALSIFIED.	MIDLAND 1			PAWLIK	

REGION III TRACKING SYSTEM
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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/83#14-01	INDIVIDUAL X (155)	ALLEGATION	MIDLAND 1			RIV	82-02
		TRAINING WAS INADEQUATE IN PREPARARING HIM TO PERFORM HIS JOB WITH ZACK. SEE REPORT C9490078S/82-02 (RIV) ALLEGATION 4 AND 83-08 SECTION I FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#14-02	INDIVIDUAL X	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		UPPER LEVEL ZACK MANAGEMENT PRESSURES HAVE AFFECTED THE QUALITY OF WORK. SEE REPORT 83-08 SECTION I AND 01 REPORT 3-82-057 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#14-03	INDIVIDUAL X	ALLEGATION	MIDLAND 1			RIV	82-02
		HE FREQUENTLY SAW DOCUMENTS HAVING EVIDENCE OF SIGNATURES OF QUESTIONABLE AUTHENTICITY, WHITE OUTS AND HEAT NUMBER ALTERATIONS. SEE 01 REPORTS 3-82-025, RIII REPORT 83-08 SECTION 1, AND RIV REPORT C9490078S/82-02 RIV ALLEGATION 8 AND 9 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
329/83#15-01	INDIVIDUAL Y (156)	ALLEGATION	MIDLAND 1			HAWKINS	83-08
		DUE TO THE FAILURE OF CPCO TO POST X-RAY SIGNS, HE WAS EXPOSED TO RADIATION PRODUCED BY X-RAY EQUIPMENT. SEE REPORT 83-08 SECTION I FOR RESOLUTION. THE INDIVIDUAL DID NOT WISH TO PURSUE THIS ISSUE WITH THE NRC.					

REGION III TRACKING SYSTEM
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05/10/84

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
329/83#16-01	INDIVIDUAL Z 95/157	ALLEGATION IMPROPER DEFICIENCY TRENDING TECHNIQUES AT ZACK. SEE REPORT 83-08 SECTION I AND III FOR RESOLUTION. INDIVIDUAL Z'S SWORN STATEMENT SENT TO OI ON 11-3-83.	MIDLAND 1			HAWKINS	83-08
329/83#16-02	INDIVIDUAL Z	ALLEGATION UNQUALIFIED COMSTOCK PERSONNEL PERFORMING ENGINEERING AND QUALITY FUNCTIONS.	MIDLAND 1			GARDNER	
329/83#16-03	INDIVIDUAL Z	ALLEGATION INADEQUATE DESIGN AND CONSTRUCTION OF INSTRUMENT TUBING AND SUPPORTS BY BECHTEL AND COMSTOCK. SEE REPORT 83-08 SECTION I FOR DETAIL OF RESOLUTION.	MIDLAND 1			COOK	83-21
329/83#17-01	INDIVIDUAL AA	ALLEGATION BECHTEL HAS HIRED LOTS OF PEOPLE WHO ARE NOT QUALIFIED TO PERFORM THE ASSIGNED WORK. ATS NOS. 87, 158, 161 ALSO INDIVIDUAL DD.	MIDLAND 1			BURGESS	84-03
329/83#18-01	INDIVIDUAL BB 88/159	ALLEGATION MIDLAND PLANT FIRE PROTECTION SYSTEM IS INADEQUATE. ALSO, INDIVIDUAL BB.	MIDLAND 1			BURGESS	84-03
329/83#19-01	INDIVIDUAL CC 96/160	ALLEGATION IMPROPER USE OF ONSITE DESIGN CHANGE METHODS. SEE REPORT 83-08 SECTION I FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.	MIDLAND 1			HAWKINS	83-08

ITEM					RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO. / INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#19-02	INDIVIDUAL CC	ALLEGATION INCORRECT INSTALLATION OF ANCHOR BOLTS FOR SURFACE MOUNTED PLATES. SEE REPORT 83-08 SECTION I AND II FOR RESOLUTION.	MIDLAND 1		HAWKINS	83-08
329/83-19-03	INDIVIDUAL CC	ALLEGATION EXTENSIVE PROPOSED CONTROL ROOM HVAC REDESIGN. SEE REPORT 83-08 SECTION I FOR RESOLUTION. REFERRED TO TERA FOR INCORPORATION INTO THE CONTROL ROOM HVAC DESIGN REVIEW.	MIDLAND 1		HAWKINS	83-08
329/83#19-04	INDIVIDUAL CC	ALLEGATION EXCESSIVE BLOWHOLES IN THE CONTROL ROOM DUCTWORK. SEE REPORT 83-08 SECTION I AND II FOR RESOLUTION.	MIDLAND 1		HAWKINS	83-08
329/83#19-05	INDIVIDUAL CC	ALLEGATION BECHTELS USE OF NONDISCLOSURE STATEMENTS. ALSO SEE REPORT 83-08 SECTION I. REPORT NO. 83-10 (ALSO CLOSED).	MIDLAND 1		HARRISON	83-10
329/83#20-01	INDIVIDUAL DO 87/161	ALLEGATION UNTRAINED AND UNQUALIFIED PERSONNEL WERE PERFORMING ENGINEERING FUNCTIONS IN THE ELECTRICAL INSTRUMENTATION SECTION.	MIDLAND 1		COOK	
329/83#21-01	INDIVIDUAL EF 90/162	ALLEGATION MEMBERS OF QA/QC HAD DOCUMENTED NONCONFORMANCES WHICH THEY WERE NOT ALLOWED BY MANAGEMENT TO ADDRESS THROUGH THE USE OF AN NCR.	MIDLAND 1		BURGESS	
329/83#21-02	INDIVIDUAL EF	ALLEGATION A CONSUMERS NCR ASSOCIATED WITH ASME REQUIREMENTS WAS DISPOSITIONED WITHOUT ALLOWING THE ANI TO IMPLEMENT A HOLD POINT AS REQUIRED BY THE CODE.	MIDLAND 1		BURGESS	

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ITEM					RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#22-01	INDIVIDUAL FF (161)	ALLEGATION CONCERN WITH THE INSTALLATION OF SHIMS IN HELBA WHIP RESTRAINTS.	MIDLAND 1			BURGESS	
329/83#22-02	INDIVIDUAL FF (163)	ALLEGATION CONCERN INVOLVING CHANGE OF WELDING SPEC M-326, ASME CODE CHANGES	MIDLAND 1			BURGESS	
329/83#22-03	INDIVIDUAL FF (163)	ALLEGATION A MAJOR CHANGE WAS MADE TO A PQCI WITHOUT SUFFICIENT RETRAINING OF QA/QC PERSONNEL, RE: PQCI 2.30	MIDLAND 1			BURGESS	
329/83#23-01	INDIVIDUAL GG	ALLEGATION WELDERS WERE UNABLE TO WELD TO SPECIFICATIONS. AIS NOS. 100-105 AND 164; HVAC-SEE 83-08	MIDLAND 1			LANDSMAN	
329/83#23-02	INDIVIDUAL GG	ALLEGATION FAILURE TO INSPECT Q-SUPPORTS FOR NON-Q SYSTEMS.	MIDLAND 1			LANDSMAN	
329/83#23-03	INDIVIDUAL GG	ALLEGATION HILTI EXPANSION BOLTS USED AS Q-SUPPORTS IN GROUTED BLOCK AND POSSIBLY CEMENT WALLS.	MIDLAND 1			LANDSMAN	
329/83#23-04	INDIVIDUAL GG	ALLEGATION CEMENT IN BACKFILL	MIDLAND 1			LANDSMAN	
329/83#23-05	INDIVIDUAL GG	ALLEGATION WITNESS IN THE BACKFILL AND USE OF A NON-Q MACHINE.	MIDLAND 1			LANDSMAN	

ITEM					RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#23-06	INDIVIDUAL GG	ALLEGATION ADEQUACY OF SOIL UNDER THE DIESEL GENERATOR PEDESTALS.	MIDLAND 1			LANDSMAN	
329/83#23-07	INDIVIDUAL GG	ALLEGATION BECHTEL HAD ADVANCE NOTICE OF NRC INSPECTIONS.	MIDLAND 1			LANDSMAN	
329/83#24-01	INDIVIDUAL HH 88/159	ALLEGATION INSTALLATION OF DETECTORS ON BEAM FLANGES RATHER THAN ON CEILING. ALSO INDIVIDUAL BH.	MIDLAND 1			BURGESS	
329/83#24-02	INDIVIDUAL HH	ALLEGATION DETECTORS INACCESSIBLE AND HIDDEN FROM VIEW	MIDLAND 1			BURGESS	
329/83#24-03	INDIVIDUAL HH	ALLEGATION DETECTORS DIFFICULT TO MAINTAIN DUE TO CEILING HEIGHTS	MIDLAND 1			BURGESS	
329/83#24-04	INDIVIDUAL HH	ALLEGATION THE MULTIZONE FIRE PANELS ARE NOT BUILT SUCH THAT TWO INDEPENDENT POWER SUPPLIES CAN BE TERMINATED PROPERLY.	MIDLAND 1			BURGESS	
329/83#24-05	INDIVIDUAL HH	ALLEGATION POWER SUPPLY CABLE IS INSTALLED IN CONFLICT TO VENDOR RECOMMENDATIONS.	MIDLAND 1			BURGESS	
329/83#24-06	INDIVIDUAL HH	ALLEGATION AIR DUCT DETECTORS HAVE BEEN INSTALLED IN CONFLICT WITH VENDOR RECOMMENDATIONS.	MIDLAND 1			BURGESS	

ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
329/83#24-07	INDIVIDUAL HH	ALLEGATION	MIDLAND 1			BURGESS	
		NO ACCESS TO DETECTORS THAT ARE LOCATED ABOVE CLIP-DOWN CEILINGS.					
329/83#24-08	INDIVIDUAL HH	ALLEGATION	MIDLAND 1			BURGESS	
		SPOT DETECTORS ARE INCORRECTLY LOCATED					
329/83#24-09	INDIVIDUAL HH	ALLEGATION	MIDLAND 1			BURGESS	
		POSSIBLE INCORRECT TYPE OF DETECTOR FOR ITS INTENDED USE.					
329/83-25-01	INDIVIDUAL II 83-113	ALLEGATION	MIDLAND 1			HARRISON	83-21
		ALLEGATIONS CONCERNING COOLING TOWER CONSTRUCTION.					
329/84#01-01	INDIVIDUAL JJ 84/20	ALLEGATION	MIDLAND 1			HARRISON	
		GENERAL CONCERNS WITH THEFT, SECURITY, WASTED FUNDS, TRASH IN PIPES, ALCOHOL AND DRUG ABUSE, AND RADIOGRAPHY.					
330/82#01-01	INDIVIDUAL A (166)	ALLEGATION	MIDLAND 2			GARDNER	83-03
		HE HAS PERSONALLY SEEN CIRCUMSTANCES THAT SUGGEST HEAVY ALCOHOL CONSUMPTION BY WORKERS ON THE JOB. PLANT WORKERS ARE PURCHASING ALCOHOLIC BEVERAGES AT OWENS PARTY STORE WHILE ON THEIR WAY TO WORK.					
330/82#01-02	INDIVIDUAL A	ALLEGATION	MIDLAND 2			GARDNER	83-03
		PLANT WORKER INFORMED ME THAT SOME TRUCKERS, FOR 50 DOLLARS, WILL PICK UP ANYTHING IN THE PLANT THEY CAN CARRY-PIPING, TOOLS, WELD ROD, MATERIAL, ETC.-AND DELIVER TO PURCHASERS RESIDENCE. HE SAYS THIS IS COMMON KNOWLEDGE.					

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ITEM NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION ASSIGNED	INSPECTOR	RESOLUTION CLOSEOUT REPORT NO.
330/82#01-03	INDIVIDUAL A ALLEGATION OTHER EMPLOYEES HAVE TOLD ME THAT MIDLAND WORKERS MANUFACTURE PIPES AND BELT BUCKLES OUT OF NUCLEAR MATERIAL WHILE THEY ARE IDLE ON THE JOB. I HAVE PERSONALLY SEEN SUCH AROUND TOWN.	MIDLAND 2		GARDNER	83-03	
330/82#01-04	INDIVIDUAL A ALLEGATION THE CONTROL ROOM HAS BEEN PLAGUED WITH RIPPED OUT WIRES, CUT CABLES, AND SPLATTERED PAINT.	MIDLAND 2		GARDNER	83-03	
330/82#01-05	INDIVIDUAL A ALLEGATION GAMBLING IS WIDESPREAD INVOLVING GENERAL FOREMEN WHO RUN POOLS OF UP TO 100 DOLLARS PER MEMBER ON GAMES SUCH AS SPORTSCORE. HE HAS HEARD THAT GENERAL FOREMEN RECEIVE A CUT OF THE OPERATION. HE IS FEARFUL THAT GOOD WORKERS WILL BE RETALIATED AGAINST BECAUSE OF A BAD DEBT CAUSING CONFLICTS WITH PLANT CONSTRUCTION QUALITY.	MIDLAND 2		GARDNER	83-03	
330/82#01-06	INDIVIDUAL A ALLEGATION A BECHTEL INSPECTOR WHO WAS THE NEIGHBOR OF A RELATIVE MADE INTERNAL CHALLENGES TO PLANT CONSTRUCTION AND WAS REBUFFED. THE INSPECTOR LEFT BECHTEL AND AFTER RETURNING SEVERAL YEARS LATER HE STATED CONSTRUCTION WAS STILL STYMIED BY THE SAME DEFECTS THAT HAD BEEN PRESENT TWO YEARS EARLIER.	MIDLAND 2		GARDNER	83-03	
330/82#01-07	INDIVIDUAL A ALLEGATION CONSUMERS IS MAKING REPAIRS PREMATURELY BEFORE OBTAINING NRC APPROVAL.	MIDLAND 2		GARDNER	83-03	

ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#01-08	INDIVIDUAL A	ALLEGATION	MIDLAND 2			GARDNER	83-03
		AN ELECTRICIAN SAID THAT HE HAS TO DO THE SAME WORK OVER AND OVER. I HAVE BEEN INFORMED THAT THE WRONG SIZE CONDUITS WERE INSTALLED. THEY HAD TO BE RIPPED OUT AND REPLACED WITH LARGER CONDUITS.					
330/82#01-09	INDIVIDUAL A	ALLEGATION	MIDLAND 2			GARDNER	83-03
		I HAVE BEEN TOLD THAT MANY WORKERS SHOVE THEIR GARBAGE IN PIPES AND THEN LATER CLOSE THE PIPES UP WITH THE GARBAGE STILL THERE.					
330/82#02-01	INDIVIDUAL B (167)	ALLEGATION	MIDLAND 2			GARDNER	84-03
		CONCERNS ABOUT STATEMENTS OVERHEARD BETWEEN NRC PERSONNEL AND CPCO ATTORNEYS WHILE IN THE LOBBY OF THE MIDLAND COUNTY COURTHOUSE DURING THE OCTOBER 15, 1981 ASLB HEARINGS. TOOK NOTES ON THESE STATEMENTS. (OIA)					
330/82#03-01	INDIVIDUAL C (135)	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		I SAW HEAVY DRINKING AROUND THE HOLIDAYS AT THE POSEYVILLE LAYDOWN AREA. ROUTINELY WORKERS GO DOWN TO OWENS PARTY STORE AT LUNCH AND GET BEER. AT LUNCH SOME WORKERS ALSO SMOKED GRASS. THIS ITEM CLOSED BASED ON AUGUST 4, 1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 7-8). INDIVIDUAL C'S SWORN STATEMENT SENT TO OI ON AUGUST 30,1983. THE INDIVIDUAL WAS UNABLE TO PROVIDE DETAILS OF HOW THE CONCERN IMPACTED SAFETY RELATED CONSTRUCTION ACTIVITIES.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#03-02	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

PIPEFITTERS HAD BELTBUCKLES CONSTRUCTED FROM STAINLESS STEEL PIPE AND WELDING RODS. SOME WERE MANUFACTURED IN THE COMHO SHOP. A WORKER FROM THE AUXILIARY BUILDING MADE BARBECUE SKEWERS. YOU COULD GET ALMOST ANYTHING YOU WANTED IF YOU KNEW THE RIGHT PEOPLE. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGE 10).
THE INDIVIDUAL WAS UNABLE TO PROVIDE DETAILS OF HOW THE CONCERN IMPACTED SAFETY RELATED CONSTRUCTION ACTIVITIES.

330/82#03-03	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

THERE WAS A LOT OF GOOFING OFF BY WORKERS AT THE PLANT. WORKERS WERE SLEEPING ON THE JOB. I HEARD RUMORS THAT SOME WORKERS WOULD WALK AROUND WITH THE SAME PLANK ALL DAY LONG IN ORDER TO LOOK BUSY. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGE 11).
THE INDIVIDUAL WAS UNABLE TO PROVIDE DETAILS OF HOW THE CONCERN IMPACTED SAFETY RELATED CONSTRUCTION ACTIVITIES.

330/82#03-04	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

IN 1979 THE ZACK BLUEPRINTS AND DRAWINGS WERE IN HORRIBLE CONDITION. MOST OF THE ZACK QUALITY CONTROL PROCEDURES FOR CONTROLLING DRAWINGS WERE NOT FOLLOWED. DRAWINGS AND DRAWING REVISIONS WERE NOT PROPERLY CONTROLLED. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGE 12-29) AND SECTIONS II AND III OF REPORT 83-08.
(ONE VIOLATION).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-05	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

I NOTICED THAT SOME CONSTRUCTION MODIFICATIONS WERE DONE BEFORE THE CHANGES HAD BEEN APPROVED. THIS OFTE INVOLVED HANGER DESIGN CHANGES. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 29-33).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-06	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

PROBLEM WAS IDENTIFIED IN 1979 CONCERNING MATERIAL TRACEABILITY. I WAS REVIEWING A BLUEPRINT AND SAW THAT A DUCT REQUIRED A PITTSBURGH SEAM. NEITHER THE ZACK PROJECT MANAGER NOR THE FOREMAN KNEW WHAT A PITTSBURGH SEAM WAS. IT WASN'T BEING USED. THE FOREMAN AND THE PROJECT MANAGER TOLD ME TO DROP THE SUBJECT BECAUSE THEY WOULD TAKE CARE OF IT. I DON'T KNOW IF THEY EVER DID. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 33-37). PITTSBURG SEAM WAS NOT USED IN SAFETY RELATED APPLICATIONS.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-07	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

QC WAS SUPPOSED TO CONDUCT INDEPENDENT INSPECTIONS OF INSTALLED HVAC UNITS TO VERIFY THAT UNITS NOT YET INSTALLED WERE KEPT COVERED AND CLEAN AS REQUIRED. INSTEAD WE JUST COPIED THE MAINTENANCE SUPERVISOR'S RECORDS WITHOUT PERFORMING INSPECTIONS. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 37-38).
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-08	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

ZACK WELDERS STARTED DOING ARC-BRAZING WELDS BEFORE A PROCEDURE WAS DEVELOPED TO COVER BRAZING REQUIREMENTS OR WELDER QUALIFICATION REQUIREMENTS FOR BRAZING. QC DID STOP THE WORK AND PUT HOLDS ON ALL WORK ALREADY DONE. FINALLY ZACK CAME UP WITH A PROCEDURE AND HAD THE WELDERS TESTED AND QUALIFIED. THIS ITEM CLOSED BASED ON AUGUST 4,1983 SWORN STATEMENT OF INDIVIDUAL C (PAGES 50-55) AND REPORT 83-08 SECTIONS I AND II.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-09	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

THERE WERE MANY BAD WELDS IN THE CONTROL ROOM CLASS I HVAC DUCTWORK WITH DEFECTS SUCH AS BLOW HOLES AND EXCESSIVE POROSITY. SOME WELDS WERE BARELY ACCESSIBLE, IF AT ALL. I DON'T KNOW IF, OR HOW, THEY WERE ALL RECHECKED. QC INSPECTORS FOUND FIVE OR SIX BAD WELDS ON ONE PIECE OF DUCTWORK. THE FOREMAN DIDN'T WANT TO CUT THE PART OUT AND REPLACE IT BECAUSE THAT WOULD BE TOO MUCH WORK. I DON'T KNOW IF THE PIECE WAS EVER REPAIRED OR REPLACED. REFER TO SWORN STATEMENT OFINDIVIDUAL C (PAGES 55-62) AND REPORT 83-08 SECTIONS I AND II.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-10	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

IN THE EARLY SUMMER OF 1979 THERE WAS NO CONTROL OVER THE USE OF WELD RODS. WORKERS JUST GRABBED AS MANY RODS AS THEY WANTED BY THE HANDFUL AND DROPPED THEM OFF LATER. THERE WERE NO SIGN-INS OR SIGN-OUTS. INSPECTORS WOULD FIND THE RODS LYING IN THE FIELD ALONG WITH THE ROD STUBS AND HALF USED PIECES. THE WELD ROD CONTROL PROCEDURE WAS SUBSEQUENTLY REVISED AND ENFORCED. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 62-66) AND REPORT 83-08 SECTIONS II,III,AND V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

REGION III TRACKING SYSTEM
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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-11	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

IN SOME CASES THE QC INSPECTORS SAID THERE WAS NO DOCUMENTATION THAT THE ANCHOR BOLTS FOR THE HVAC SYSTEM WERE EITHER TORQUED AT ALL OR TORQUED WITH A CALIBRATION TORQUE WRENCH. SOME OF THE BOLTS IN QUESTION WERE NO LONGER ACCESSIBLE. QC WENT BACK AND TORQUED AND DOCUMENTED AS MANY AS THEY COULD REACH BUT I DON'T KNOW WHAT HAPPENED TO THE REST. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 66-74) AND REPORT 83-08 SECTION I AND II.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-12	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

A QC MANUAL WAS SO VAGUE IT WAS USELESS. THE MANUAL WAS REVISED IN OCTOBER 1979. I DO NOT KNOW IF THE PREVIOUS INSPECTION REPORTS DONE UNDER UNRELIABLE QC INSPECTION STANDARDS WERE RECHECKED TO SEE IF THE EARLIER TESTS HAD MISSED PROBLEMS. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 74-77) AND REPORT 83-08 SECTIONS II, III AND V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-13	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08

I WAS INFORMED THAT THE TESTING PROCEDURES UNDER WHICH INSPECTORS WERE QUALIFIED WERE NOT GOOD ENOUGH TO COVER THE KEY SKILLS. I UNDERSTAND THAT THE REQUIREMENTS HAVE BEEN REVISED, BUT AGAIN, UNQUALIFIED INSPECTORS MAY HAVE MISSED QUALITY FLAWS FOR A LONG TIME. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 77-84) AND REPORT 83-08 SECTIONS II, III, AND V.
THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.

REGION III TRACKING SYSTEM
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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#03-14	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		DUE TO SCHEDULING PRESSURES NONCONFORMING HVAC DUCTWORK WAS INSTALLED IN THE PLANT. THE ZACK CHICAGO QA MANAGER AND VICE PRESIDENT SAW THE DUCTWORK AND LET IT GO TO THE FIELD. THIS REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 84-94) AND REPORT 83-08. SECTIONS I. II. III. IV. AND V. THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.				
330/82#03-15	INDIVIDUAL C	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		THERE IS STRONG RESENTMENT AGAINST BECHTEL AND ZACK QC AT MIDLAND. INSPECTORS ARE REFERRED TO AS TROUBLEMAKERS OR AS A JOKE. QC SUPERVISOR FORCED OUT AFTER TRYING TO MAKE QC STRONGER. REFER TO SWORN STATEMENT OF INDIVIDUAL C (PAGES 94-97). THIS ALLEGATION WAS CATEGORIZED AS AN UNDEFINED CONCERN (I.E. LACK OF SPECIFICITY) AND WAS ADDRESSED UNDER THE FIVE PHASE PROGRAM IN REPORT 83-08.				
330/82#04-01	INDIVIDUAL D (136)	ALLEGATION	MIDLAND 2			GARDNER	83-10
		DURING INSTALLATION OF THE SWITCHGEAR IN THE BATTERY ROOMS ON THE 614 ELEVATION WE WERE UNABLE TO OBTAIN MINIMUM ANCHOR BOLT EMBEDMENT BECAUSE OF REINFORCEMENT ROD INTERFERENCE. THE STANDARD PROCEDURE TO DECEIVE QC WAS TO ADD THREADS TO AN ANCHOR BOLT, CUT IT OFF, AND DRESS IT UP WITH A GRINDER. THIS INSTANCE WAS NOT UNIQUE.				
330/82#04-02	INDIVIDUAL D	ALLEGATION	MIDLAND 2			GARDNER	83-10
		I HAVE SEEN WORKERS AND SUPERVISORS THROW PEANUT SHELLS, ORANGE PEELS, BANANA PEELS, OR WAXED PAPER INTO 2 INCH AND SMALLER PIPES.					

ITEM					RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#04-03	INDIVIDUAL D	ALLEGATION	MIDLAND 2			GARDNER	83-10
		IT IS MY BELIEF THAT THE ACTUAL CONTROL ROOM IS SIMPLY NOT LARGE ENOUGH TO PROVIDE ADEQUATE WORK SPACE FOR A FULL CONTROL ROOM CREW.					
330/82#04-04	INDIVIDUAL D	ALLEGATION	MIDLAND 2				
		IN THE CABLE CUT SHOP WE WERE FREE TO SUBSTITUTE A SIMILAR TYPE OF CABLE FOR A TYPE THAT WAS UNAVAILABLE OR OUT OF STOCK. THESE SUBSTITUTE CABLES WERE NOT SPECIFIED IN THE BLUEPRINTS. SUCH SUBSTITUTIONS ARE ROUTINELY MADE WITHOUT CONSULTATION AND WITHOUT REGARD TO THE PURPOSE, LOCATION OR OPERATION IN WHICH THE CABLE IS USED.					
330/82#04-05	INDIVIDUAL D	ALLEGATION	MIDLAND 2				
		I FOUND THAT MANY CONDUITS SUPPORTS HAD BEEN IN PLACE AND WERE SUPPORTING WEIGHT GREATER THAN PERMITTED BY SPECIFICATIONS. QC INSPECTORS WERE AWARE OF THE PROBLEM BUT MAINTAIN THAT THIS WAS BECHTELS REPONSIBILITY AND IF BECHTEL HAD APPROVED THE HANGER THE QC STAFF WOULD NOT WRITE AN NCR. THERE WAS NO MECHANISM TO INSURE THAT THE ELECTRICAL CONDUITS WERE CORRECTLY INSTALLED AND SUPPORTING ONLY LOADS ALLOWED BY SPECIFICATIONS.					
330/82#04-06	INDIVIDUAL D	ALLEGATION	MIDLAND 2			01	
		IT IS MY BELIEF THAT MY TERMINATION WAS A DIRECT RESULT OF MY COMMUNICATION TO THE NRC.					
330/82#04-07	INDIVIDUAL D	ALLEGATION	MIDLAND 2				
		HE OBSERVED THE IMPROPER INSTALLATION AND USE OF THE TYPE 30 CONDUIT SUPPORTS WHICH ARE ATTACHED TO THE FLANGES OF STEEL I-BEAMS.					

ITEM				RESOLUTION			
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#04-08	INDIVIDUAL D	ALLEGATION	MIDLAND 2				
		OUT OF THE 12 INSPECTORS I WORKED WITH, ONLY ONE COULD BE CONSIDERED EVEN MARGINALLY COMPETENT OR QUALIFIED.					
330/82#04-09	INDIVIDUAL D	ALLEGATION	MIDLAND 2				
		WHEN HE TRIED TO BRING QC COMPLAINTS TO THE ATTENTION OF HIS FOREMAN, GENERAL FOREMAN, AND SUPERINTENDENT HE DID NOT GET ADEQUATE SUPPORT. HE WAS TOLD THAT IT WAS NOT HIS JOB TO POINT OUT VIOLATIONS.					
330/82#05-01	INDIVIDUAL E (137)	ALLEGATION	MIDLAND 2				
		IT IS MY PROFESSIONAL OPINION THAT THE MIDLAND PLANT IS THE WORST NUCLEAR FACILITY I HAVE EVER SEEN.					
330/82#05-02	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		BECHTEL HAS HIRED ENGINEERS AND QC INSPECTORS WHO ARE NOT ADEQUATELY QUALIFIED OR TRAINED FOR THE COMPLICATED WORK IN A MODERN NUCLEAR PLANT.					
330/82#05-03	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		I HAVE SEEN BECHTEL PERSONNEL, BOTH QC INSPECTORS AND ENGINEERS WITH QC RESPONSIBILITIES, ROUTINELY ACCEPT SUBSTANDARD WORK.					
330/82#05-04	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		NRC FIELD INSPECTORS SHOWED A SURPRISING WILLINGNESS TO LET THE BECHTEL PERSONNEL DO ALL THE DIRTY WORK INVOLVED IN SUPPOSEDLY INDEPENDENT INVESTIGATIONS. IN THE AREA OF THE INSIDE WALL CORROSION IN SMALL BORE PIPING IT WAS GENERALLY THE BECHTEL PEOPLE WHO ACTUALLY CLIMBED AROUND ON THE PIPING AND CALLED OUT THE MEASUREMENTS TO THE NRC. AS A RESULT, MANY OF THE INSPECTION REPORTS DO NOT REFLECT ANYTHING MORE THAN BECHTEL'S ASSERTIONS.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION: INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
330/82#05-05	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		BECHTEL HAD ESTABLISHED STANDARDS WHICH FELL BELOW THOSE OF THE ASME CODE. THERE IS AN INTER-OFFICE MEMO DATED APRIL 24, 1981 CONCERNING SOCKET WELD ENGAGEMENT LENGTH. THE MEMO 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. THESE GAPS WEAKEN THE JOINT.					
330/82#05-06	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		THERE ARE MANY SHEET-MEMOS PLACED IN THE SPECIFICATIONS BOOK WHICH DOWNGRADE THE WELDING STANDARDS.					
330/82#05-07	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		BECHTEL HAS HIRED INEXPERIENCED ENGINEERS, WELDERS AND INSPECTORS WHO WERE NOT PROPERLY TRAINED. WHEN INSPECTORS AND ENGINEERS DON'T KNOW HOW TO USE A FILLET GAUGE TO MEASURE WELDS YOU KNOW THAT THE OVERALL PROGRAM STANDARDS CANNOT BE VERY HIGH AND A COMPLETE INVESTIGATION IS WARRANTED.					
330/82#05-08	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		BECHTEL HAD ESTABLISHED STANDARDS WHICH FELL BELOW THOSE OF THE AMERICAN WELDING SOCIETY. BECHTEL ALLOWED LOW-HYDROGEN ELECTRODES USED IN WELDING TO BE TAKEN OUT OF THEIR HOT OVENS OR HERMETICALLY-SEALED CONTRAINERS FOR UP TO EIGHT HOURS BEFORE USE. THE AWS STANDARD ALLOWS ONLY 4 HOURS MAX. IN THE OPEN AIR					

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#05-09	INDIVIDUAL E	ALLEGATION	MIDLAND 2				

HE OBSERVED ONE QC INSPECTOR ABOUT TO APPROVE A FILLET WELD THAT HAD NOT BEEN FULLY WELDED. HE CONVINCED THE INSPECTOR THAT HE WAS RIGHT BUT THE WELDER REFUSED TO PUT ANY MORE WELD ON. THE WELDER SAID HE HAD BEEN DOING IT THAT WAY FOR TWO YEARS AND HIS BOSS HAD ALWAYS APPROVED IT. ANOTHER QC INSPECTOR HEARD HIS EXPLANATIONS AND ADMITTED THAT HE HAD BEEN APPROVING BAD WELDS HIMSELF.

330/82#05-10	INDIVIDUAL E	ALLEGATION	MIDLAND 2				

HE DISCOVERED THAT MANY WELDS IN THE HIGH PRESSURE PIPING HAD BEEN IMPROPERLY GROUND DOWN. GRINDING DOWN THE PIPE WALL THICKNESS ALONG WITH IT.

330/82#05-11	INDIVIDUAL E	ALLEGATION	MIDLAND 2				

HE PERFORMED AN INSPECTION OF SMALL BORE PIPING AND DISCOVERED EXTENSIVE CORROSION. BECHTEL QC REPORTS FAILED TO REFLECT THE PROBLEMS WHICH HE DISCOVERED. WHILE BECHTEL QC INSPECTORS USUALLY RELIEF ON VISUAL INSPECTIONS ONLY, HE TOOK WHAT IS CALLED THICKNESS AND MATERIALS READINGS. HE CONTENDS THAT VISUAL INSPECTIONS CAN DETECT CORROSION ONLY ON THE OUTSIDE OF THE PIPING.

330/82#05-12	INDIVIDUAL E	ALLEGATION	MIDLAND 2				

ONE QC ENGINEER, WHO HAS BEEN AT MIDLAND SINCE THE BEGINNING, TOLD ME THAT OVER 90% OF THE PIPING IN THE ENTIRE PLAN HAS HAD TO BE CUT OUT AND REPLACED AT ONE POINT OR OTHER.

330/82#05-13	INDIVIDUAL E	ALLEGATION	MIDLAND 2				

NRC INSPECTORS ARE HANDICAPPED BY THEIR PRACTICE OF NOT COMING IN UNANNOUNCED. TO THE BEST OF HIS KNOWLEDGE, THERE WERE NO NRC INSPECTIONS THAT WEREN'T PRECEDED BY TWO OR THREE DAYS OF PREPARATION DIRECTED BY BECHTEL, DURING WHICH, PROBLEMS WOULD BE REPAIRED AND SOMETIMES CONCEALED.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION: INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
330/82#05-14	INDIVIDUAL E	ALLEGATION	MIDLAND 2				
		HE BELIEVES THAT HE WAS TERMINATED FOR INSISTING THAT THERE WERE SERIOUS PROBLEMS AT MIDLAND WHICH SUPERVISORS REFUSED TO ACKNOWLEDGE. HE REQUESTED A COMPLETE INVESTIGATION BY THE SAN FRANCISCO HOME OFFICE.					
330/82#06-01	INDIVIDUAL F (13H)	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		IN THE INTRODUCTION TO THE INVESTIGATION (NRC INSPECTION REPORT ON ZACK) THE LIST OF DOCUMENTS APPLICABLE TO THE HVAC ACTIVITIES FAILED TO INCLUDE THE AMERICAN WELDING SOCIETY (AWS) D-19 CODES REFERENCING THE WELDING OF GALVANIZED STEEL. HE BELIEVES THAT THIS SHOULD HAVE BEEN CHECKED BECAUSE THE AWS CODES PROVIDE THE GALVANIZED STEEL WELDING REQUIREMENTS THAT SHOULD HAVE BEEN ENFORCED. CLOSED IN REPORT 83-08 (REFERENCE INTRODUCTION SECTION AND SECTION I) IND. F. WAS NOT SATISFIED WITH THE RESULTS OF 80-10; 80-11. CLOSEOUT AND RESOLUTION OF CONCERNS ARE DOCUMENTED IN REPORTS 80-21,80-22; 80-22, 80-23; 80-23, 80-24; 80-26, 80-27; AND 82-15, 82-15. INDIVIDUAL F'S AFFIDAVIT SENT TO OIA ON AUGUST 9,1983.					
330/82#06-02	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE BELIEVES THAT THERE IS SOMETHING SIGNIFICANTLY MISSING IN THE DISCUSSION OF ALLEGATION ONE (NRC INSPECTION REPORT ON ZACK) ABOUT THE TRAVELERS FROM CHICAGO NOT BEING ANNOTATED TO SHOW WHETHER OR NOT THEY WERE SCRAP. HE DISCOVERED THAT ALL SCRAPPED PARTS WERE NOT ACTUALLY DISCARDED. HE BELIEVES THAT MEANT THAT EVEN DEFECTIVE PARTS WERE BEING USED TO BUILD THE PLANT. RESOLUTION SAME AS 82#06-01.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION: INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
330/82#06-03	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		IN THE FINDING OF ALLEGATION ONE HE HAS SIGNIFICANT DISCREPANCIES WITH THE INVESTIGATORS. TO THE BEST OF HIS KNOWLEDGE THE INITIALING OF THE LEFT-SIDE OF THE TRAVELER WAS NEVER A PART OF THE QC PROCEDURE UNTIL AFTER HE INITIATED THE ORIGINAL ALLEGATIONS. HE BELIEVES THE POST-INITIALING OF THE TRAVELERS DOES NOT CONSTITUTE A CONFIRMATION OF CURRENT ACCURACY IN THE TRAVELERS. RESOLUTION SAME AS 82#06-01.				
330/82#06-04	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE BELIEVES THAT CONTRARY TO THE NRC INSPECTION REPORT ON ZACK, CHICAGO PAINTED WELDS WERE COMPLETELY COVERED WITH THICK PAINT AND THAT THE PAINT OR LACK OF IT WAS A RELIABLE FACTOR IN DETERMINING THE SITE OF FABRICATION AND QUESTIONABLE DUCT PIECES. HE BELIEVES THIS MEANS THAT ZACK WAS ABLE TO MAKE PIECES AT THEIR LEISURE WITHOUT TRACEABILITY OR QC INSPECTIONS. RESOLUTION SAME A 82#06-01.				
330/82#06-05	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE BELIEVES THAT ANOTHER SPECIFIC EXAMPLE OF OVERSIGHT IN THE NRC INSPECTION REPORT ON ZACK IS THE LACK OF FINDING FOR TRAVELER NUMBER V03-42#-F10171. HE CONTENDS THAT IT IS DIFFICULT TO UNDERSTAND WHY THE NRC WOULD ACCEPT THE WORD OF ZACK OVER THE BLACK AND WHITE DOCUMENT PROVIDED OT THEM. HE ALSO QUESTIONS WHETHER THE ITEM V03-SH2-2-F9437 WAS ACTUALLY PHYSICALLY SCRAPPED AND THE DATE IT WAS SCRAPPED. RESOLUTION SAME AS 82#06-01.				

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#06-06	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		CONCERNING THE FINDING ON ALLEGATION NUMBER 4 PERTAINING TO TRAVELER NUMBER V27-SH3A-29-F4410 (NRC INSPECTON REPORT ON ZACK) HE CONTENDS THAT IN THE LIGHT OF ZACK'S RAMPANT MISLEADING STATEMENTS TO THE NRC AND CONSUMERS POWER CO., IT IS CURIOUS TO NOTE THAT NO FURTHER VERIFICATION WAS MADE, OTHER THAN A PAPERWORK REVIEW, TO INSURE THAT THE ITEM WAS IN FACT RETURNED. HE KNOWS PERSONALLY THAT THE ITEM WAS NOT RETURNED. RESOLUTION SAME AS 82#06-01.				
330/82#06-07	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		IT IS HIS UNDERSTANDING THAT CONSUMERS POWER COMPANY HAD DECIDED TO FORGET OR IGNORE THE UNRESOLVED ITEMS REFERENCED IN MCAR MD-1 (NRC INSPECTION REPORT ON ZACK). HE BELIEVES THAT A LETTER SENT TO ZACK FROM CPCO IN MID-FEBRUARY CONGRATULATING THEM ON A CLEAN BILL OF HEALTH AND AUTHORIZING ZACK TO CONTINUE UNFETTERED WITH THEIR OWN REPAIR PROGRAM. HE REMAINS UNCONVINCED THAT 100% OF ALL ZACK WELDS WERE REINSPECTED. RESOLUTION SAME AS 82#06-01.				
330/82#06-08	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		ON TRAVELER NUMBER V26-SH2B-46.1-P1515 HE DOES NOT SEE WHERE THE DEEPER PROBLEM EVIDENT FROM THE NRC FINDING IS ADDRESSED BY THE NRC INSPECTION REPORT ON ZACK. HE SAYS THAT IT APPEARS THAT ZACK OPERATED UNDER THE ASSUMPTION THAT FIELD TESTING FOR GAS TIGHTNESS WOULD PRECLUDE VISUAL INSPECTION. HE SAYS THIS IS NOT ALLOWED PER APPLICABLE CODES AND IT IS IMPOSSIBLE TO PERFORM 100% INSPECTION AFTER INSTALLATION. RESOLUTION SAME AS 82#06-01.				

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#06-09	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE HAS A SIGNIFICANT DISCREPANCY WITH ITEM 5(A) (ALLEGATION 5) IN NRC INSPECTION REPORT ON ZACK. IT IS PRACTICALLY IMPOSSIBLE TO HAVE THE IDENTICAL SAME MATERIAL AVAILABLE FOR ONSITE REPAIR AS FOR THE ORIGINATION OF THE ITEM. EVEN IF REPAIRS WERE EXACTLY ACCORDING TO PROCEDURE A DIFFERENCE WOULD COME WITH INDIVIDUAL WELDERS DOING THE REPAIRS. MATERIAL TRACEABILITY AND REQUIREMENT FOR REGULAR INSPECTORS AFTER CERTAIN PHASES OF REPAIR IS LOST. RESOLUTION SAME AS 82#06-01				
330/82#06-10	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE SAYS THAT IN ITS CONCLUSION OF FINDING FOR ALLEGATION 10 THE NRC BLATENTLY DISREGARDS THE REQUIREMENTS FOR MATERIAL TRACEABILITY AND DOCUMENTATION. (NRC INSPECTION REPORT ON ZACK). RESOLUTION SAME AS 82#06-01.					
330/82#06-11	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE SAYS THAT THE NRC WAS INCORRECT IN THE FINDING ON ALLEGATION 5(D) FOR WHICH CPCO PAID 3500 DOLLARS FOR NOT HAVING CARBON DIOXIDE AVAILABLE FOR USE AS A SHIELDED GAS. HE BELIEVES THAT CARBON DIOXIDE WAS ALWAYS AVAILABLE ON THE SITE. RESOLUTION SAME AS 82#06-01.					
330/82#06-12	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		REGARD, 5 ALLEGATION 13 (NRC REPORT ON ZACK) HE SAYS THE NRC COMPLETELY FAILS TO ADDRESS THE FACT THAT ALL ASPECTS OF REPAIR ARE NOT DOCUMENTED WITH RESPECT TO INDIVIDUAL TRAVELERS. HE SAYS THAT A NONCONFORMANCE REPORT OR HOLD REPORT IN NO WAY SUBSTITUTES THE REQUIREMENT FOR NOTATION OF REPAIRS ON EACH COMPONENT'S DOCUMENT. RESOLUTION SAME AS 82#06-01.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#06-13	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		REGARDING ALLEGATION 15 HE HAS CONCERNS WITH STATEMENTS ABOUT THE WELDING ROD ISSUE ROOM (NRC REPORT ON ZACK). HE SAYS THAT THE ROOM WAS NOT LOCKED DURING THE MAJORITY OF THE TIME HE WORKED THERE. WELDING RODS WERE TAGGED ONLY AFTER NRC CAME TO INVESTIGATE HIS ALLEGATIONS. HE SEES OBVIOUS CONTRADICTIONS BETWEEN THE NRC'S OWN FINDING ABOUT THE WELDING ROD SITUATION, HIS PERSONAL OBSERVATIONS, AND WITH LATER NRC REPORT STATEMENTS. RESOLUTION SAME AS 82#06-01				
330/82#06-14	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE SAYS THAT THE NRC REPORT FAILED TO MENTION RON COOK'S STATEMENT TO HE THAT APPROXIMATELY 10,000 POUNDS OF NONCONFORMING 70-18 ROD HAD BEEN RECEIVED AND THAT THE ONLY EXPLANATION OFFERED BY ZACK WAS THAT THE ROD HAD ALL BEEN THROWN AWAY. HE DOES NOT CONSIDER THIS AN ACCEPTABLE RESPONSE TO ALLEGATION 15. RESOLUTION SAME AS 82#06-01.				
330/82#06-15	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE SAYS THAT THE NRC, IN THE PROBLEM SURROUNDING RUSKIN FIRE DAMPERS (ALLEGATION 16), FAILED TO REALIZE THAT REQUIRED INDIVIDUAL SERIAL NUMBERS ARE NON-EXISTENT ON THE ACTUAL FIRE DAMPERS. RESOLUTION SAME AS 82#06-01.				
330/82#06-16	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		IN REGARDS TO ALLEGATION 20 HE FOUND NOTHING IN THE FINDING (NRC REPORT ON ZACK) FOR THIS ALLEGATION TO INDICATE THAT A CHECK WAS MADE TO ASSURE INACCURATE TRAVELERS WERE NOT BEING REPLACED ASIDE FROM ASKING THREE MENTIONED INSPECTORS. HE BELIEVES A SIMPLE REVIEW WOULD REVEAL THE CONTRARY. HE IS ALSO CONCERNED ABOUT MATERIAL TRACEABILITY OF NEW MATERIAL AND WELDER IDENTIFICATION. RESOLUTION SAME AS 82#06-01.				

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#06-17	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		REGARDING ALLEGATION 21. CONCERNING PORTABLE WELD ROD CARRIER CALIBRATION STICKERS. HE BELIEVES THAT THE FINDING (NRC REPORT ON ZACK) DID NOT REVEAL THE FACT THAT THE EQUIPMENT FOR CALIBRATION ANY OF THE CARRIERS WAS INSUFFICIENT. HE CONSIDERS ANY AND ALL SUCH UNITS TO THUS BE OUT OF CALIBRATION. RESOLUTION SAME AS 82#06-01.					
330/82#06-18	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE SAYS THAT THE NRC REPORT ON ZACK DOES NOT MENTION HOW OR IF THE ANGLE IRON DIMENSION DISCREPANCIES FOR PART NUMBER F-916, VI-3 HAVE BEEN RESOLVED. RESOLUTION SAME AS 82#06-01.					
330/82#06-19	INDIVIDUAL F	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HE SAYS THAT IN REGARDS TO ALLEGATION 18 THE NRC OVERLOOKED THE FACT THAT A COPY OF THE AUDIT TO BE PERFORMED WAS SENT TO MIDLAND SEVERAL DAYS BEFORE THE ACTUAL AUDIT TOOK PLACE. (NRC REPORT ON ZACK). RESOLUTION SAME AS 82#06-01.					
330/82#07-01	INDIVIDUAL G (139)	ALLEGATION	MIDLAND 2			HARRISON	
		HE SAYS THAT RATS ARE EATING INSULATION ON THE ELECTRICAL CABLES IN THE REACTOR BUILDING.					
330/82#07-02	INDIVIDUAL G	ALLEGATION	MIDLAND 2			HARRISON	83-22
		HE SAYS THAT SALT MINES UNDER THE REACTOR SITE WILL EFFECT THE PLANT'S SEISMIC DESIGN.					
330/82#07-03	INDIVIDUAL G	ALLEGATION	MIDLAND 2			HARRISON	
		DON MILLER HAS CONTROL OVER MPQAD WHICH RESULTS IN UNDUE INFLUENCE BEING IMPOSED ON THEM.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#07-04	INDIVIDUAL G	ALLEGATION	MIDLAND 2				

CONSUMERS POWER COMPANY FAILED TO REPORT INCORRECT PIPE STRESS CALCULATIONS TO THE NRC AS REQUIRED BY ITEM 6 OF IAL DATED MAY 22, 1981, APPROXIMATELY THREE WEEKS AFTER THE IAL ISSUANCE AN ENGINEER MISCALCULATED THE PIPE STRESS BY A FACTOR OF THREE. CONSUMERS POWER COMPANY NEVER REPORTED THIS INFORMATION TO THE NRC AS REQUIRED BY THE IAL.

330/82#07-05	INDIVIDUAL G	ALLEGATION	MIDLAND 2				

IN THE FOUR DAYS FOLLOWING THE ISSUANCE OF THE MAY 22, 1981 IAL NO EFFORTS WERE MADE OR WERE BEING MADE TO BRING THE PROJECT INTO COMPLIANCE ON PROCEDURES FOR FIELD MODIFICATIONS OF PIPING SUSPENSION BLUEPRINTS. CHANGES IN DESIGN, CALLED REDLINING, WERE BEING MADE WITHOUT THE REQUIRED CALCULATIONS.

330/82#07-06	INDIVIDUAL G	ALLEGATION	MIDLAND 2				

ON SEPTEMBER 8, 1982 CPCO WAS PROCEEDING WITH THE INSTALLATION OF NEW PIPING SYSTEMS ON TWO 60 HOUR PER WEEK SHIFTS. IN MY PROFESSIONAL OPINION, IT WOULD HAVE BEEN IMPOSSIBLE FOR CPCO TO HAVE COMPLETED THE WORK WHICH INSPECTOR YIN INDICATED SHOULD BE DONE IN THE NRC JULY 15, 1982 REPORT PRIOR TO SEPTEMBER 8, 1982.

330/82#07-07	INDIVIDUAL G	ALLEGATION	MIDLAND 2				

ITEM E OF THE AUGUST 21, 1981 REPORT REMAINS A PROBLEM DESPITE THE FACT THAT DON MILLER TOLD ME THAT IT HAD BEEN ACCOMPLISHED TWO DAYS AFTER NRC ISSUED THE REQUIREMENT.

330/82#08-01	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08

CONSUMERS POWER (BECHTEL) WAS NOTIFIED OF ZACK INCONSISTENCIES BY LETTER DATED AUGUST 28, 1981 (7220-M-151), CALKINS TO DAVIS. REF: CORRECTIVE ACTION REQUEST (CAR) 814. (EXHIBIT 2). SEE REPORT 83-08 SECTION 3 FOR RESOLUTION (50.55(E) VIOLATION). INDIVIDUAL H'S AFFIDAVIT AND SWORN STATEMENT SENT TO OIA AND OI ON AUG. 9/31 AND AUG. 30, 1983, RESPECTIVELY.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#08-02	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		MIDLAND QA CONTRACT EMPLOYEE DIRECTED PERSONNEL TO SIGN TRAINING FORM. PERSONNEL CLAIMED THEY RECEIVED NO TRAINING. (EXHIBIT 5) (CHECK APPLICABILITY OF THIS TO ZACK SITE PERSONNEL). (EXHIBIT 5). SEE REPORT C4990078S/82-02 (RIV) ALLEGATIONS 2 AND 4 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/82#08-03	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		CATEGORIZATION OF MAJOR DISCREPANCIES IN INTERIM REPORT 10-02-81 TO BECHTEL (7220-M-151-C/8-548) ON 10-09-81 (EXHIBIT 6.A) AND (EXHIBIT 7). RESOLUTION SAME AS 82#08-01.					
330/82#08-04	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		THIRD INTERIM REPORT ON DISCREPANCIES (10-23-81) SENT TO BECHTEL 10-23-81 (7220-M-151-C/8-552). (EXHIBIT 8) PGS. 3, 6, 9, 12, AND 15. RESOLUTION SAME AS 82#08-01.					
330/82#08-05	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		QUESTIONABLE BECHTEL ENGINEERING ANALYSIS OF ZACK DISCREPANCIES. LETTER DAVIS TO GREUNE, 12-21-81. (EXHIBIT 11). RESOLUTION SAME AS 82#08-01.					
330/82#08-06	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		INDIVIDUAL STATED THAT CALKINS HAD CALLED H. LEONARD AT MIDLAND (PG 14 OF AFFIDAVIT). RESOLUTION SAME AS 82#08-01.					

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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/82#08-07	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		HECHTEL HAD KNOWLEDGE OF ZACK MATERIAL BEING SHIPPED TO THE SITE IN NONCONFORMING CONDITION. LETTER DAVIS TO EICHSTAEDT, 11-05-80 (EXHIBIT 15). RESOLUTION SAME AS #2#08-01.					
330/82#08-08	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		EXAMPLES OF FALSIFIED TEST REPORTS. ONE COPY PRIOR TO FALSIFICATION. ONE COPY AFTER. STICKERS WERE DATED 11-06-80 BUT REQUEST FOR U.S. STEEL TO UPGRADE TEST REPORTS NOT MADE BEFORE 01-23-81. (EXHIBIT 17) (EXHIBIT 16). SEE REPORT C#99007#5/#2-02 (RIV) ALLEGATIONS 8,9, AND 10 FOR RESOLUTION. ALSO 01 REPORT 3-#2-025. REPORT #3-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/82#08-09	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		U. S. STEEL LETTER PETERS TO HAGEN, 09-21-81, IDENTIFYING 26 PO'S THAT WERE NOT ORIGINALLY ORDERED "SAFETY-RELATED". (EXHIBIT 20). SEE REPORT C#99007#5/#2-02 (RIV) ALLEGATION 11 AND RIII REPORT #3-08 SECTIONS IV AND V FOR RESOLUTION. NRC MATERIAL TESTING INCLUDED SIX SAMPLES OF U.S. STEEL MATERIAL. REPORT #3-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/82#08-10	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		ZACK AUDIT OF EDGECOMB METALS IDENTIFIES UNACCEPTABLE QA PROGRAM (EXHIBIT 21). DETERMINE IF EDGECOMB PRODUCTS WERE USED AT MIDLAND. SEE ALSO EXHIBITS 43, NRC 1002. SEE REPORT 83-08 SECTIONS IV AND V. NRC MATERIAL TESTING INCLUDED 10 SAMPLES OF EDGECOMB MATERIAL. REPORT #3-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82*08-11	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02

ZACK REMOVES DELTA SCREW (DS) COMPANY FROM APPROVED VENDOR LIST ON 10-20-81 (EXHIBIT 24); HOWEVER, 38 PO'S SENT TO DS DURING THE TIME THEY WERE SUPPOSEDLY REMOVED FROM LIST. (EXHIBIT 25). DETERMINE IF DS MATERIAL WAS USED AT MIDLAND. SEE REPORT C999007R5/82-02 (RIV) ALLEGATIONS 7 AND 13 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/82*08-12	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02

QUALIFICATIONS OF ZACK QA/QC PERSONNEL QUESTIONABLE (EXHIBIT 26). DETERMINE IF ZACK PERSONNEL AT MIDLAND ARE QUALIFIED. SEE REPORT C999007R5/82-02 (RIV) ALLEGATIONS 2 AND 4 FOR RESOLUTION. ALSO REPORT 83-08 SECTIONS II AND III. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/82*08-13	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02

CERTIFICATION OF TEST RESULTS (EXHIBIT 27A) ENSURES MATERIAL ORDERED ON PO C-1253 WAS SUBJECT TO TESTING. PO C-1253 IS ON U.S.S. LIST AS NON SR (EXHIBIT 20). SEE REPORT C999007R5/82-02 (RIV) ALLEGATION 11 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/82*08-14	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02

ZACK PRESIDENT DOES QA REVIEW (EXHIBIT 27A AND B) 02-23-81. NOT TRAINED UNTIL 08-31-81 (EXHIBIT 28). SEE REPORT C999007R5/82-02 (RIV) ALLEGATION 4 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#08-15	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		MIDLAND MEETING NOTES OF 11-03-81 (EXHIBIT 29). DETERMINE IF ALL COMMITMENTS WERE MET. RESOLUTION SAME AS 82#08-01.					
330/82#08-16	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		DELTA SCREW MATERIAL IDENTIFIED AS NONCONFORMING C4286-NCR W-112, C4484-NCR-M-110. NO MARKS ON BOLTHEADS TO IDENTIFY MANUFACTURER. BECHTEL CLEARED FOR USE WITHOUT BASIS (EXHIBIT 20A, B, C), (EXHIBIT 31), AND (EXHIBIT 32). SEE REPORT C999007B5/ 82-02 (RIV) ALLEGATION 7 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/82#08-17	INDIVIDUAL H	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		REVIEW CPCO INVESTIGATION (APRIL 15, 1980) OF ALLEGERS' ALLEGATIONS FOR CREDIBILITY. SEE REPORT 83-08 (BACKGROUND AND METHODOLOGY SECTIONS AND AUGUST 30, 1983 LETTER TO OI FROM DE. THIS ITEM IS RELATED TO OI INVESTIGATIONS OF INDIVIDUALS WRONGFUL FIRING (3-82-057).					
330/82#08-18	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		DETERMINE IF WELDSTAR WAS INVOLVED IN SUPPLYING WELD MATERIAL TO MIDLAND, (EXHIBIT 41). IF SO, DETERMINE IF CERTS EXIST FOR MATERIAL PURCHASED IN 1978 OR PRIOR TO THAT DATE. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 10 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/82#08-19	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		ZACK AUDIT IZC/81-7 (09-10-81) IDENTIFIES SIGNIFICANT QA BREAKDOWN (EXHIBIT 42). DETERMINE APPLICABILITY TO MIDLAND. RESOLUTION SAME AS 82#08-01. (BASIS FOR ZACK'S AUG. 28, 1981 LETTER TO MIDLAND ON CERTIFICATION DEFICIENCIES).					
330/82#08-20	INDIVIDUAL H	ALLEGATION	MIDLAND 2			RIV	82-02
		REVIEW NRC Q111 WRITTEN ON C#406 FOR POSSIBLE FALSIFICATION AND APPLICABILITY TO MIDLAND (EXHIBIT 43, NRC IJ 01). SEE REPORT C9990785/82-02 (RIV) ALLEGATION 7 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/82409-01	INDIVIDUAL I (141)	ALLEGATION	MIDLAND 2				
		IN ALMOST ALL OF THE AUXILIARY BUILDING STRUCTURAL STEEL HE INSPECTED THE PRIMER COATING WAS TOO THICK. THUS IT WAS NOT POSSIBLE TO DETERMINE THE ACCURACY OF THE THICKNESS OF THE TOP COAT. HE REPORTED THESE DISCREPANCIES TO HIS SUPERVISOR AND REFUSED TO SIGN OFF THE WORK BUT ANOTHER INSPCTOR DID SIGN. HE DOES NOT BELIEVE THAT AN NCR WAS EVER GENERATED. HE SUGGESTS THAT THE LINER PLATE COATINGS BE REVIEWED ALSO.					
330/82#09-02	INDIVIDUAL I	ALLEGATION	MIDLAND 2				
		IN INSPECTING WELDED LINER PLATE SYMMETRY AND SHAPE HIS ONLY TOOL WAS A CRUDE WOODEN TEMPLATE. THIS METHOD OF INSPECTION COMBINED WITH THE DIFFICULTY OF ACCESS TO THE UPPER PORTIONS LACKS SUFFICIENT ACCURACY TO MEASURE THE SHAPE TO THE GIVEN TOLERANCE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE / BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	RESOLUTION: INTERIM INSPECTION	RESOLUTION: INSPECTOR ASSIGNED	RESOLUTION: CLOSEOUT REPORT NO.
330/82#09-03	INDIVIDUAL I	ALLEGATION	MIDLAND 2				
		ON SEVERAL OCCASIONS HE NOTICED CADWELDS WHICH HAD BEEN APPROVED BY OTHER INSPECTORS THAT DID NOT MEET THE CRITERIA "NO SLAG IN TAP HOLE". HE WAS NOT ABLE TO INSPECT ALL THE SPLICES WHICH WERE INSPECTED BY OTHERS AND HE FEELS CERTAIN THAT THERE ARE NONCONFORMING SPLICES IN PLACE.					
330/82#10-01	INDIVIDUAL J (142)	ALLEGATION	MIDLAND 2				
		GRINDING WHEELS USED IN POLISHING WELDS WERE NOT OF THE SAFETY GRADES REQUIRED BY NRC CODE.					
330/83#01-01	INDIVIDUAL K (020)	ALLEGATION	MIDLAND 2			COOK	
		ONLY OF ALMOST 300 INSTALLED SNUBBERS IN UNIT 2 ONLY 20 TO 30 ARE PROPERLY PROTECTED BY COVERS.					
330/83#01-02	INDIVIDUAL K	ALLEGATION	MIDLAND 2			COOK	
		STAINLESS AND CARBON STEEL WELD RODS ARE BEING MIXED TOGETHER AND ARE NOT BEING STORED IN HEAT OVENS. WELDERS ARE PICKING THE WELD RODS RIGHT OFF THE FLOOR AND WELDING MATERIAL WITH THEM.					
330/83#02-01	INDIVIDUAL L (144)	ALLEGATION	MIDLAND 2			COOK	
		FOR YEARS THE NRC HAS BEEN COLLUDING WITH BECHTEL BY PROVIDING WARNINGS OF EXACTLY WHERE AND WHEN THE NRC WOULD CONDUCT ITS HARDWARE INSPECTIONS. A RECENT EXAMPLE OCCURRED IN JANUARY 1983.					
330/83#02-02	INDIVIDUAL L	ALLEGATION	MIDLAND 2			COOK	
		THERE WAS A SEVERE PROBLEM WITH THE QUALIFICATIONS FOR CERTAIN OF ITS QUALITY CONTROL INSPECTORS AND ENGINEERS. THEY WERE HIRED FROM THE SECRETARIAL POOLS, OR OFF THE STREETS. THERE WAS A SIMILAR PROBLEM WITH UNQUALIFIED ENGINEERS. IN MY OPINION THE LACK OF QUALIFIED PERSONNEL CONSTITUTED MISMANAGEMENT AND COMPROMISED THE QUALITY OF THE WORK.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/83#02-03	INDIVIDUAL L	ALLEGATION	MIDLAND 2			COOK	
		ANOTHER EXAMPLE INVOLVED BECHTELS PATTERN OF REASSIGNING WORKERS, AND PARTICULARLY GENERAL FOREMEN AND SUPERVISORS, BEFORE THEY COMPLETED THEIR ASSIGNMENTS. AS A RESULT, THE EXPERIENCE AND EXPERTISE OF THE PREVIOUS EMPLOYEES WERE LOST, AND A NEW MAN HAD TO BE BROKEN IN.					
330/83#02-04	INDIVIDUAL L	ALLEGATION	MIDLAND 2			COOK	
		THE EFFECT OF THE MISMANAGEMENT WAS UNNECESSARY REWORK AND COST OVERRUNS. DESIGN AND INSTALLATION ESSENTIALLY WERE DONE ON A TRIAL AND ERROR BASIS. THE SAME WORK WAS DONE OVER AND OVER. THIS HAS LED TO A TREMENDOUS AMOUNT OF UNNECESSARY OVERTIME.					
330/83#02-05	INDIVIDUAL L	ALLEGATION	MIDLAND 2			COOK	
		SOMETIMES THE GROSS WASTE OCCURRED FROM THROWING OUT GOOD MATERIALS OR PRACTICALLY GIVING THEM AWAY.					
330/83#02-06	INDIVIDUAL L	ALLEGATION	MIDLAND 2			COOK	
		ANOTHER PROBLEM ON-SITE WAS INTOXICATION THROUGH DRINKING AND SMOKING MARIJUANA ON THE JOB.					
330/83#03-01	INDIVIDUAL M (145)	ALLEGATION	MIDLAND 2			RIV	82-02
		CMTRS WERE ALTERED TO RESOLVE THE LACK OF PROPERLY REFERENCED STANDARDS AND MISSING AUTHENTICATION SIGNATURE. THESE DOCUMENT ALTERATIONS WERE IDENTIFIED IN THE INTERIM REPORTS /ACK SUPPLIED TO THE UTILITIES FOR A SIGNIFICANT EVENT DISCLOSURE. HE WOULD RATHER CLASSIFY THE ALTERATIONS AS FORGERIES. SEE REPORT C9900785/82-02 (RIV) ALLEGATIONS H AND 9 AND 01 REPORT 3-82-025 FOR RESOLUTION. REPORT #3-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

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ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#03-02	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02
		SCATTERED AND MISSING PURCHASE ORDERS AND RELATED DOCUMENTATION WERE CONTINUALLY INCLUDED IN THE PURCHASE ORDER FOLDERS WITHOUT BEING LOGGED INTO THE DOCUMENT CONTROL LOG BOOK AS REQUIRED. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 5 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#03-03	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02
		PURCHASE ORDERS WERE INCOMPLETE. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 11 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#03-04	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02
		INABILITY OF SUBTIER VENDORS TO SUPPLY MISSING INFORMATION. SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS 6,7,10 AND 11 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#03-05	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02
		AN APPROVED VENDORS LIST THAT FAILED TO REFLECT ZACK'S PURCHASING PRACTICES. SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS 12 AND 13 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

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05/10/84

ITEM NO./ RESPONSE DUE	INSPECTION/ MODULE NO.	ITEM TYPE/ ITEM DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#03-05	INDIVIDUAL M	ALLEGATION	MIDLAND 2			HAWKINS	83-08

THE PURCHASE ORDER FOR MATERIAL SUPPLIED TO MIDLAND WOULD READ LASALLE. SEE LASALLE REPORTS 373/82-51;374/82-18 FOR RESOLUTION. REPORT 83-04 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/83#03-07	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02

AN OCTOBER 9, 1981 REPORT IDENTIFIED (1) ALTERED CERTIFICATIONS; (2) WHITE-OUT USED AND RETYPED; AND (3) HEAT NUMBERS ALTERED TO AGREE WITH CERTIFICATIONS. REFER TO REPORTS 83-08 SECTION I, C99900785/82-02 (RIV) ALLEGATIONS 8 AND 9, AND OI 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/83#03-08	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02

THE DOCUMENT CONTROL WAS SO POOR TRADITIONALLY THAT THE RECORDS HAD BEEN PILED ON FLOORS IN BOXES. EVEN AFTER THE DOCUMENT CONTROL CENTER HAD BEEN ESTABLISHED, UNAUTHORIZED PERSONNEL WERE REMOVING QUALITY DOCUMENTS WITHOUT SIGNING THEM OUT. REFER TO REPORT C99900785/82-02 (RIV) ALLEGATIONS 1 AND 5 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

ITEM NO./ RESPONSE DUE	INSPECTION/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/83#03-09	INDIVIDUAL M	ALLEGATION	MIDLAND 2			RIV	82-02
		INTERIM REPORTS WERE PRODUCED ON A RUSH BASIS IN ORDER TO SHOW DOCUMENTED EVIDENCE THAT ZACK WAS IMPLEMENTING CORRECTIVE ACTION AND THAT THE UTILITIES COULD PROCEED WITH CONSTRUCTION. THESE INTERIM REPORTS WERE INACCURATE AND SHOULD HAVE BEEN CONTINUALLY REVISED TO REFLECT AN ACCURATE STATUS REPORT. SEE REPORTS C99900785/82-02 (RIV) ALLEGATION 16 AND 83-08 SECTION I (50.55(E)) FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.				
330/83#03-10	INDIVIDUAL M	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		AN OCTOBER 23, 1981 REPORT ACCURATELY IDENTIFIED PROBLEMS WITH MATERIAL CERTIFICATIONS, IMPROPER ACCESS TO DOCUMENTS, AND UNAUTHORIZED DOCUMENT ALTERATIONS. RESOLUTION SAME AS 82#08-01.					
330/83#04-01	INDIVIDUAL N (146)	ALLEGATION	MIDLAND 2			RIV	82-02
		I HAD VIRTUALLY NO FORMAL TRAINING FOR MY WORK. SEE REPORT C99900785/82-02 (RIV) ALLEGATION 4 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#04-02	INDIVIDUAL N	ALLEGATION	MIDLAND 2			RIV	82-02
		REPRODUCED COPIES WERE NOT IDENTICAL TO THE ORIGINAL PO. DISCREPANCIES INCLUDED FREQUENT SPACES ON THE REPRODUCTIONS WHICH HAD BEEN WHITED-OUT AND SOMETIMES FILLED IN OVER AGAIN. SEE REPORT C99900785/82-02 (RIV) ALLEGATIONS H AND 9 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE / BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#04-03	INDIVIDUAL N	ALLEGATION	MIDLAND 2			RIV	82-02
		MANUFACTURERS DID NOT SEEM ESPECIALLY CAREFUL IN MONITORING THE EQUIPMENT PAPERWORK. ONE MANUFACTURER SENT US A TYPICAL CERTIFICATION FORM FOR SEVERAL LOTS OF WELDING MATERIAL, ALONG WITH A LETTER INDICATING THAT WE COULD FILL IN THE SPECIFICATIONS AND MATCH THEM UP WITH THE PO'S THEMSELVES. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 10 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#04-04	INDIVIDUAL N	ALLEGATION	MIDLAND 2			RIV	82-02
		COMMENTS CONCERNING POOR DOCUMENT CONTROL. REFER TO REPORT C999007B5/82-02 (RIV) ALLEGATIONS 1 AND 5 AND OI REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#04-05	INDIVIDUAL N	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		DURING THE TIME I WORKED FOR ZACK, THE NRC DID NOTHING THAT I AM AWARE OF TO INSPECT ZACK PROCEDURES OR MONITOR THEIR QA PROGRAM. SEE LETTERS FROM RIII WHICH REFER THIS ISSUE TO OIA (DATED AUG.4,AND 31, 1983) FOR APPROPRIATE ACTION. THE LETTERS FORWARDED IND. H'S AFFIDAVIT AND SWORN STATEMENT AND IND. O'S AFFIDAVIT REGARDING SAME ISSUE. REPORT 83-09 REFERS TO ISSUES SENT TO OIA.					

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ITEM					RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MOBILE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83*05-01	INDIVIDUAL 0 (147)	ALLEGATION	MIDLAND 2			RIV	82-02

COMMENTS REGARDING POOR DOCUMENT CONTROL. SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 1 AND 2 AND 01 REPORT 3-82-025 FOR RESOLUTION. INDIVIDUAL 0'S AFFIDAVIT FOWARDED TO 01A IN LETTER DATED AUGUST 9,1982. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/83*05-02	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			RIV	82-02

THERE WAS NO CONTROL OVER NUCLEAR PURCHASE ORDERS. AFTER I WAS FIRED I LEARNED THAT SOMEONE HAD GONE INTO SOME OF THE FILES TO FIX OR CORRECT THE VARIOUS PO'S. SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 8 AND 9 AND 01 REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/83*05-03	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			RIV	82-02

COMMENTS REGARDING LACK OF FORMAL TRAINING. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 4 FOR RESOLUTION REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

330/83*05-04	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			RIV	82-02

TO THE BEST OF MY PERSONAL KNOWLEDGE A COMPLETE AUDIT IS STILL NOT FINISHED AT ZACK. (QA DOCUMENTATION). SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 16 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/83#05-05	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			RIV	82-02
		A NUMBER OF THE CMTR'S I INSPECTED WERE ALTERED.SEE REPORT C999007B5/82-02 (RIV) ALLEGATIONS 8 AND 9 AND 01 REPORT 3-82-025 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#05-06	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			RIV	82-02
		I WAS NOT QUALIFIED TO MAKE A RESOLUTION OR EXCUSE FOR PROBLEMS LIKE MISSING CERTIFICATIONS (CONCERNING NCRS SHE WAS FORCED TO WRITE). SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 4 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#05-07	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			RIV	82-02
		IN LETTER FROM A SUB-TIER VENDOR CONCERNING MISSING CERTIFICATIONS OR SPECIFICATIONS THE VENDOR TOLD ZACK TO JUST FILL IN THE BLANKS. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 10 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#05-08	INDIVIDUAL 0	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		TO THE BEST OF MY KNOWLEDGE THERE WAS NEVER AN NRC INVESTIGATION AT THE ZACK SITE DURING MY EMPLOYMENT THERE. REPORT 83-08 REFERS TO AFFIDAVITS AND STATEMENTS WHICH WERE SENT TO OIA. REFER TO AUGUST 9,1983 LETTER FROM REGION III TO OIA.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/83#05-09	INDIVIDUAL O	ALLEGATION	MIDLAND 2			RIV	82-02
		I ALSO BELIEVE THERE SHOULD BE A REVIEW OF ZACK WELDER QUALIFICATION RECORDS. SEE REPORT 050000785/82-02 (RIV) ALLEGATION 3 AND RIII REPORTS 83-13&83-14.(COOK RELEASE OF ZACK WORK) FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#06-01	INDIVIDUAL P (148)	ALLEGATION	MIDLAND 2			GARDNER	84-03
		ALLEGATIONS CONCERNING GEOTECHNICAL DRAWING CONTROL AT THE BECHTEL COMPANY, ANN ARBOR, MICHIGAN. (RIV RPT)					
330/83#07-01	INDIVIDUAL Q 47/149	ALLEGATION	MIDLAND 2			GARDNER	84-03
		AT THE MIDLAND NUCLEAR POWER PLANT, YOU BASICALLY HAVE A POORLY TRAINED, DEMORALIZED, FAMILY ORIENTED, AND UNCOMMITTED TO DUTY CONTRACT SECURITY FORCE. (CREED LETTER)					
330/83#08-01	INDIVIDUAL R 53/150	ALLEGATION	MIDLAND 2			COOK	83-11
		UNQUALIFIED PERSONNEL AT MIDLAND INCLUDE LEO DAVIS, DICK SOUERHOLM, CLARK ASH, AND ED ENTROKIN. REFER TO JUNE 27, 1983 LETTER TO SINCLAIR FROM KEPPLER. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#08-02	INDIVIDUAL R	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		ZACK ALSO DID NOT HAVE QUALIFIED PEOPLE FOR DESIGN WORK THEY WERE DOING. SEE REPORT 83-08 SECTION I FOR RESOLUTION (ATTACHMENT 1 TO REPORT 83-08)					

ITEM NO./ RESPONSE DUE	INSPECTION/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#08-03	INDIVIDUAL H	ALLEGATION	MIDLAND 2			COOK	83-11
		HE CLAIMS THAT ALL WORK ON ANY CONTRUCTION PROJECT BEYOND A CERTAIN LIMITED SIZE MUST BE DONE AS A MICHIGAN REGISTERED ENGINEER OR ARCHITECT. ALSO SEE REPORT 83-09 SECTION I AND JUNE 27, 1983 LETTER TO SINCLAIR FROM KEPPLER FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#08-04	INDIVIDUAL R	ALLEGATION	MIDLAND 2			COOK	83-11
		HE TOLD ME THAT A VERY GOOD WELDER QUIT THE PROJECT RECENTLY BECAUSE THE SCHEDULING WAS SO ERRATIC. SEE JUNE 27,1983 LETTER FROM KEPPLER FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#09-01	INDIVIDUAL S (151)	ALLEGATION	MIDLAND 2			COOK	
		ALLEGATIONS REGARDING THEFT - BIG WIDE MOUTH THERMOS BOTTLES, FALSE BOTTOM COOLERS, AND REGULAR THERMOS BOTTLES. THIS IS PETTY TO WHAT IS BEING TAKEN OUT BY TRUCK, FOR EVERYONE FROM TOMMY DAVIS AND HIS STAFF RIGHT ON DOWN TO THE COMMON WORKER.					
330/83#09-02	INDIVIDUAL S	ALLEGATION	MIDLAND 2			COOK	
		ONE WORKER HAMMERED TOOLS AND TOOL BUCKETS DURING THE DAY AND PLACED THEM IN A PICKUP SPOT FOR THE MAN ON THE NIGHT SHIFT TO TAKE OUT ON THE BECHTEL TEAMSTER TRUCK AT NIGHT. HIS NAME IS COOK.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#09-03	INDIVIDUAL S	ALLEGATION	MIDLAND 2			COOK	
		SEVERAL GRINDERS HAVE BEEN TAKEN BY RANDY FAYEN & ED WARDWELL. MOSS CARTWRIGHTS GARAGE IS FULL OF TOOLS FROM H&W. SO IS SUCK WARDWELLS. ROY YEAGER TOOK TOOLS INCLUDING GRINDERS, WELDING TORCH AND OTHER THINGS. THE PURCHASING PERSON, ROSCOE VASCIO OR SOMETHING LIKE THAT HAD STUFF DELIVERED TO HIS HOUSE.					
330/83#09-04	INDIVIDUAL S	ALLEGATION	MIDLAND 2			COOK	
		PEOPLE WHO HAVE NEVER EVEN SEEN A NUCLEAR POWER HOUSE BEFORE IN THEIR LIFE ARE IN POSITIONS OF FOREMAN, GENERAL FOREMAN, SUPERINTENDENTS, JOB STEWARDS, AND OTHER POSITIONS THAT THEY HAVE NO QUALIFICATIONS FOR AT ALL.					
330/83#10-01	INDIVIDUAL I (051)	ALLEGATION	MIDLAND 2			LANDSMAN	83-14
		ONE OF THE UNDERPINNING PIERS IS SINKING MORE THAN ANTICIPATED.					
330/83#11-01	INDIVIDUAL U 69/152	ALLEGATION	MIDLAND 2			GARDNER	84-03
		THERE IS NO TRACEABILITY FOR TOIA LINCOLN ELECTRODE TO THE LOCATION OF CONSUMPTION.					
330/83#11-02	INDIVIDUAL U	ALLEGATION	MIDLAND 2			GARDNER	84-03
		PROJECT QUALITY CONTROL INSTRUCTIONS WHICH HE HAD IN HIS POSSESSION CONTAINED MISTAKES.					
330/83#12-01	INDIVIDUAL V (153)	ALLEGATION	MIDLAND 2			COOK	
		HE HAD ADVANCE KNOWLEDGE OF NRC INSPECTIONS AND WERE TOLD TO DO THE JOB BY THE BOOK WHILE THEY WERE AT THE PLANT. AT OTHER TIMES PROCEDURES VARIED IN ORDER TO MEET TIME LIMITS.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/83#12-02	INDIVIDUAL V	ALLEGATION	MIDLAND 2			COOK	
		IN SOME INSTANCES QC INSPECTORS WOULD SIGN OFF ON THE WORK DESPITE ITS NOT HAVING BEEN DONE IN THE CORRECT SEQUENCE. AS A RESULT, QC INSPECTORS COULD NOT CHECK THE THICKNESS OR TAPER ON A BEVEL, INSPECT THE CLEANLINESS OF A PIPE'S INTERIOR, OR VERIFY THAT A PIPE HAD THE PROPER HEAT NUMBER ON IT.					
330/83#13-01	INDIVIDUAL W (154)	ALLEGATION	MIDLAND 2			PAWLIK	
		RESUMES OF SOME OF THE PERSONNEL SUPPLIED UNDER CONTRACT TO H K W BY HARCLAY WERE FALSIFIED.					
330/83#14-01	INDIVIDUAL X (155)	ALLEGATION	MIDLAND 2			RIV	82-02
		TRAINING WAS INADEQUATE IN PREPARING HIM TO PERFORM HIS JOB WITH ZACK. SEE REPORT C999007B5/82-02 (RIV) ALLEGATION 4 AND 83-08 SECTION 1 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#14-02	INDIVIDUAL X	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		UPPER LEVEL ZACK MANAGEMENT PRESSURES HAVE AFFECTED THE QUALITY OF WORK. SEE REPORT 83-08 SECTION 1 AND 01 REPORT 3-82-057 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#14-03	INDIVIDUAL X	ALLEGATION	MIDLAND 2			RIV	82-02
		HE FREQUENTLY SAW DOCUMENTS HAVING EVIDENCE OF SIGNATURES OF QUESTIONABLE AUTHENTICITY, WHITE OUTS AND HEAT NUMBER ALTERATIONS. SEE OI REPORTS 3-82-025, RIII REPORT 83-08 SECTION 1, AND RIV REPORT C99900785/82-02 RIV ALLEGATION 8 AND 9 FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#15-01	INDIVIDUAL Y (156)	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		DUE TO THE FAILURE OF CPCO TO POST X-RAY SIGNS, HE WAS EXPOSED TO RADIATION PRODUCED BY X-RAY EQUIPMENT. SEE REPORT 83-08 SECTION I FOR RESOLUTION. THE INDIVIDUAL DID NOT WISH TO PURSUE THIS ISSUE WITH THE NRC.					
330/83#16-01	INDIVIDUAL Z 95/157	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		IMPROPER DEFICIENCY TRENDING TECHNIQUES AT ZACK. SEE REPORT 83-08 SECTION I AND III FOR RESOLUTION. INDIVIDUAL Z'S SWORN STATEMENT SENT TO OI ON 11-3-83.					
330/83#16-02	INDIVIDUAL Z	ALLEGATION	MIDLAND 2			GARDNER	
		UNQUALIFIED COMSTOCK PERSONNEL PERFORMING ENGINEERING AND QUALITY FUNCTIONS.					
330/83#16-03	INDIVIDUAL Z	ALLEGATION	MIDLAND 2			COOK	83-22
		INADEQUATE DESIGN AND CONSTRUCTION OF INSTRUMENT TUBING AND SUPPORTS BY BECHTEL AND COMSTOCK. SEE REPORT 83-08 SECTION I FOR DETAIL OF RESOLUTION.					

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#17-01	INDIVIDUAL AA	ALLEGATION	MIDLAND 2			HURGESS	84-03
		BECHTEL HAS HIRED LOTS OF PEOPLE WHO ARE NOT QUALIFIED TO PERFORM THE ASSIGNED WORK. ATS NOS. 87, 158, 161					
330/83#18-01	INDIVIDUAL HH 88/159	ALLEGATION	MIDLAND 2			HURGESS	84-03
		MIDLANT PLANT FIRE PROTECTION SYSTEM IS INADEQUATE. ALSO INDIVIDUAL HH.					
330/83#19-01	INDIVIDUAL CC 96/160	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		IMPROPER USE OF ONSITE DESIGN CHANGE METHODS. SEE REPORT 83-08 SECTION I FOR RESOLUTION. REPORT 83-08 PROVIDES ASSURANCE THAT HVAC SYSTEMS AND COMPONENTS ARE ADEQUATELY DESIGNED AND CONSTRUCTED; THAT MATERIALS AND THE QA PROGRAM UTILIZED WERE ADEQUATE.					
330/83#19-02	INDIVIDUAL CC	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		INCORRECT INSTALLATION OF ANCHOR BOLTS FOR SURFACE MOUNTED PLATES. SEE REPORT 83-08 SECTION I AND II FOR RESOLUTION.					
330/83-19-03	INDIVIDUAL CC	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		EXTENSIVE PROPOSED CONTROL ROOM HVAC REDESIGN. SEE REPORT 83-08 SECTION I FOR RESOLUTION. REFERRED TO TERA FOR INCORPORATION INTO THE CONTROL ROOM HVAC DESIGN REVIEW.					
330/83#19-04	INDIVIDUAL CC	ALLEGATION	MIDLAND 2			HAWKINS	83-08
		EXCESSIVE BLOWHOLES IN THE CONTROL ROOM DUCTWORK. SEE REPORT 83-08 SECTION I AND II FOR RESOLUTION.					

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ITEM						RESOLUTION	
ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#19-05	INDIVIDUAL CC	ALLEGATION	MIDLAND 2			HARRISON	83-10
		RECHTELS USE OF NONDISCLOSURE STATEMENTS. ALSO SEE REPORT 83-08 SECTION 1.					
330/83#20-01	INDIVIDUAL DD 87/161	ALLEGATION	MIDLAND 2			COOK	
		UNTRAINED AND UNQUALIFIED PERSONNEL WERE PERFORMING ENGINEERING FUNCTIONS IN THE ELECTRICAL INSTRUMENTATION SECTION.					
330/83#21-01	INDIVIDUAL EE 90/162	ALLEGATION	MIDLAND 2			BURGESS	
		MEMBERS OF QA/QC HAD DOCUMENTED NONCONFORMANCES WHICH THEY WERE NOT ALLOWED BY MANAGEMENT TO ADDRESS THROUGH THE USE OF AN NCR.					
330/83#21-02	INDIVIDUAL FF	ALLEGATION	MIDLAND 2			BURGESS	
		A CONSUMERS NCR ASSOCIATED WITH ASME REQUIREMENTS WAS DISPOSITIONED WITHOUT ALLOWING THE ANI TO IMPLEMENT A HOLD POINT AS REQUIRED BY THE CODE.					
330/83#22-01	INDIVIDUAL FF (163)	ALLEGATION	MIDLAND 2			BURGESS	
		CONCERN WITH THE INSTALLATION OF SHIMS IN HELBA WHIP RESTRAINTS. PERSONNEL SAFETY.					
330/83#22-02	INDIVIDUAL FF (163)	ALLEGATION	MIDLAND 2			BURGESS	
		CONCERN INVOLVING CHANGE OF WELDING SPEC. M-326. ASME CODE CHGS.					
330/83#22-03	INDIVIDUAL FF (163)	ALLEGATION	MIDLAND 2			BURGESS	
		A MAJOR CHANGE WAS MADE TO A PQCI WITHOUT SUFFICIENT RETRAINING OF QA/QC PERSONNEL. RE: PQCI 2.30.					

REGION III TRACKING SYSTEM
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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83#23-01	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		WELDERS WERE UNABLE TO WELD TO SPECIFICATIONS. AIS NOS. 100-105, 1641 HVAC - SEE 83-08.					
330/83#23-02	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		FAILURE TO INSPECT Q-SUPPORTS FOR NON-Q SYSTEMS.					
330/83#23-03	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		HILTI EXPANSION BOLTS USED AS Q-SUPPORTS IN GROUTED BLOCK AND POSSIBLY CEMENT WALLS.					
330/83#23-04	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		CEMENT IN BACKFILL					
330/83#23-05	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		WITNESS IN THE BACKFILL AND USE OF A NON-Q MACHINE.					
330/83#23-06	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		ADEQUACY OF SOIL UNDER THE DIESEL GENERATOR PEDESTALS.					
330/83#23-07	INDIVIDUAL GG	ALLEGATION	MIDLAND 2			LANDSMAN	
		HECHTEL HAD ADVANCE NOTICE OF NRC INSPECTIONS.					
330/83#24-01	INDIVIDUAL HH BB/159	ALLEGATION	MIDLAND 2			BURGESS	06
		INSTALLATION OF DETECTORS ON BEAM FLANGES RATHER THAN ON CEILING. ALSO INDIVIDUAL BB.					

REGION III TRACKING SYSTEM
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ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	RESOLUTION CLOSEOUT REPORT NO.
330/83#24-02	INDIVIDUAL HH	ALLEGATION DETECTORS INACCESSIBLE AND HIDDEN FROM VIEW	MIDLAND 2			BURGESS	
330/83#24-03	INDIVIDUAL HH	ALLEGATION DETECTORS DIFFICULT TO MAINTAIN DUE TO CEILING HEIGHTS	MIDLAND 2			BURGESS	
330/83#24-04	INDIVIDUAL HH	ALLEGATION THE MULTIZONE FIRE PANELS ARE NOT BUILT SUCH THAT TWO INDEPENDENT POWER SUPPLIES CAN BE TERMINATED PROPERLY.	MIDLAND 2			BURGESS	
330/83#24-05	INDIVIDUAL HH	ALLEGATION POWER SUPPLY CABLE IS INSTALLED IN CONFLICT TO VENDOR RECOMMENDATIONS.	MIDLAND 2			BURGESS	
330/83#24-06	INDIVIDUAL HH	ALLEGATION AIR DUCT DETECTORS HAVE BEEN INSTALLED IN CONFLICT WITH VENDOR RECOMMENDATIONS.	MIDLAND 2			BURGESS	
330/83#24-07	INDIVIDUAL HH	ALLEGATION NO ACCESS TO DETECTORS THAT ARE LOCATED ABOVE CLIP-DOWN CEILINGS.	MIDLAND 2			BURGESS	
330/83#24-08	INDIVIDUAL HH	ALLEGATION SPOT DETECTORS ARE INCORRECTLY LOCATED	MIDLAND 2			BURGESS	
330/83#24-09	INDIVIDUAL HH	ALLEGATION POSSIBLE INCORRECT TYPE OF DETECTOR FOR ITS INTENDED USE.	MIDLAND 2			BURGESS	

REGION III TRACKING SYSTEM
ONE COPY FOR RON GARDNER

ITEM NO./ RESPONSE DUE	INSPECTOR/ MODULE NO.	ITEM TYPE/ BRIEF DESCRIPTION	FACILITY NAME	LICENSEE DESIGNATED NO.	INTERIM INSPECTION	RESOLUTION INSPECTOR ASSIGNED	CLOSEOUT REPORT NO.
330/83-25-01	INDIVIDUAL II 83/113	ALLEGATION	MIDLAND 2			HARRISON	83-22
		ALLEGATIONS CONCERNING COOLING TOWER CONSTRUCTION.					
330/84#01-01	INDIVIDUAL JJ 84/20	ALLEGATION	MIDLAND 2			HARRISON	
		GENERAL CONCERNS WITH THEFT, SECURITY, WASTED FUNDS, TRASH IN PIPES, ALCOHOL AND DRUG ABUSE, AND RADIOGRAPHY.					

Consumers Power Company

James W Cook
Vice President - Projects, Engineering and Construction

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0453

June 14, 1982

PRINCIPAL STAFF			
DIR		MTG	
D/D		RAO	
A/D		NLO	
DP&PI			
DE&TI			
DEP&QS		File	1468

Landsman

Harold R Denton, Director
Office of Nuclear Reactor Regulation
Division of Licensing
US Nuclear Regulatory Commission
Washington, DC 20555

MIDLAND PROJECT
MIDLAND DOCKET NO 50-329, 50-330
RESPONSE TO NRC STAFF REQUEST FOR ADDITIONAL
INFORMATION REQUIRED FOR COMPLETION OF
STAFF REVIEW OF SOILS REMEDIAL WORK
FILE: 0485.16 SERIAL: 17319
REFERENCES: (1) D G EISENHUT LETTER TO J W COOK
DATED MAY 25, 1982
(2) J W COOK LETTER TO H R DENTON,
SERIAL 17293, DATED JUNE 1, 1982
ENCLOSURE: RESPONSE TO THE NRC STAFF REQUEST FOR ADDITIONAL
INFORMATION REQUIRED FOR COMPLETION OF STAFF
REVIEW OF SOILS REMEDIAL WORK DATED JUNE 14, 1982

Enclosure 8 to the NRC's correspondence of May 25, 1982 (Reference 1) listed the information which the Staff required to conclude its review of the soils remedial work. We responded in our correspondence of June 1, 1982, and indicated that our response to the questions posed in Enclosure 8 would be forwarded by June 15, 1982.

The enclosure to this correspondence represents a complete response to each question posed in Enclosure 8 to the NRC's letter of May 25, 1982. Supporting information is available for audit by the NRC at Bechtel's office in Ann Arbor. .

We believe the enclosed information, combined with the discussion of these responses with the Staff on June 11, 1982, adequately responds to the requests and individual concerns identified by the Staff. With the submittal of the

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enclosed information, we believe that the Staff should be in a position to expeditiously review our responses and immediately thereafter provide its concurrence with our request to proceed with the remedial measures.

James W. Cook

JWC/RLT/mkh

CC Atomic Safety and Licensing Appeal Board, w/o
CBechhoefer, ASLB, w/o
MMCherry, Esq, w/o
FPCowan, ASLB, w/o
RJCook, Midland Resident Inspector, w/o
RSDecker, ASLB, w/o
SGadler, w/o
JHarbour, ASLB, w/o
GHarstead, Harstead Engineering, w/a
DSHood, NRC, w/a (2)
DFJudd, B&W, w/o
JDKane, NRC, w/a
FJKelley, Esq, w/o
RBLandsman, NRC Region III, w/a
WHMarshall, w/o
JPMatra, Naval Surface Weapons Center, w/a
WOtto, Army Corps of Engineers, w/a
WDPaton, Esq, w/o
SJPoulos, Geotechnical Engineers, w/a
FRinaldi, NRC, w/a
HSingh, Army Corps of Engineers, w/a
BStamiris, w/o

BCC RCBauman, P-14-312B, w/a
AJBoos, Bechtel, w/a
JEBrunner, M-1079, w/a
WJCloutier, P-24-505, w/a
BDhar, Bechtel, w/a
PJGriffin, P-24-513, w/a
EMHughes, Bechtel, w/a
RWHuston, Washington, w/a
JKMeisenheimer, P-14-100, w/a
JAMooney, P-14-115A, w/a
DBMiller, Midland, w/a
MIMiller, IL&B, w/a
NRamanujam, P-14-100, w/a
KBRazdan, P-14-419, w/a
JARutgers, Bechtel, w/a
JRSchaub, P-14-305, w/a
PPSteptoe, IL&B, w/a
TJSullivan/DMBudzik, P-24-624A, w/a
RLTeuteberg, P-24-505
TRThiruvengadam, P-14-400, w/a
FVillalta, P-14-419, w/a
DJVandeWalle, P-24-414, w/a
FCWilliams, IL&B, w/a
NRC Correspondence File

CONSUMERS POWER COMPANY
Midland Units 1 and 2
Docket No 50-329, 50-330

Letter Serial 17319 Dated June 14, 1982

At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits additional information responding to NRC requests on the soils remedial work. The submittal documents our response to information requested by the NRC Staff in Enclosure 8 of the NRC's May 25, 1982 correspondence.

CONSUMERS POWER COMPANY

By _____
J W Cook, Vice President
Projects, Engineering and Construction

Sworn and Subscribed Before Me This 14th Day of June 1982

_____
Notary Public
Jackson County, Michigan

My Commission Expires September 8, 1984

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ENCLOSURE

RESPONSE TO THE NRC STAFF REQUEST FOR ADDITIONAL INFORMATION REQUIRED FOR COMPLETION OF STAFF REVIEW OF SOILS REMEDIAL WORK

MIDLAND PLANT UNITS 1 AND 2
DOCKET NO 50-329 and 50-330
CONSUMERS POWER COMPANY

June 14, 1982

RESPONSE TO THE NRC STAFF REQUEST FOR ADDITIONAL INFORMATION
REQUIRED FOR COMPLETION OF STAFF REVIEW OF
SOILS REMEDIAL WORK

INFORMATIONAL REQUEST 1

Provide the following information regarding the Auxiliary Building and Feedwater Isolation Valve Pits:

REQUEST 1.1

Redesign of stiffened bulkhead against earth pressures during drift excavation to install needle beam assembly.

RESPONSE

Our response to this request was contained in the enclosure to Serial 17225 dated May 14, 1982 and is duplicated below along with the NRC's question:

Review Concern 14 - Explain the design for the initial drift tunnel extended under the end of the electrical penetration area for piers W8 and E8 to the Units 1 and 2 reactor walls, respectively.

Response - The initial drifts will be constructed with the cross-section shown in Figure 3. As noted in Figure 3, a provision is made to eliminate the effect of surcharge loading from the building. The drift is designed for the active earth pressure(1) because the fill behind the wall uses a 4-foot set spacing for the drift bracing. The actual drift construction will use a 2-foot set spacing, which has the earth pressure; the actual drift will then be designed for twice the earth pressure.

(1) Maximum value = 41h PSF where "h" is the height of the drift

REQUEST 1.2

Revise report on crack evaluation to include consideration of the effects of multiple cracks.

RESPONSE

Several crack evaluation reports, as noted below, have been submitted previously. A final report, issued by our correspondence Serial 17320 dated June 14, 1982 is being submitted to address the criteria pertaining to crack width and the effects of multiple cracks.

Bldg	Date	Serial
FIVP	1/25/82	15493
Aux	1/29/82	15527
DGB	2/16/82	15978
SWPS	3/2/82	16009
REPAIR	4/30/82	17228

REQUEST 1.3

Analysis of the construction condition using a subgrade modulus of 70 KCF and provide results.

RESPONSE

Our response to this request was contained in Enclosure 2 to Serial 17304 dated June 7, 1982 and is identified as Review Concern 2 for the Construction Phase 3.

REQUEST 1.4

Allowable differential settlements for Phase 3 (based on 1.3 above)

RESPONSE

The locations at which the differential settlements will be monitored and the allowable values and the technique used to calculate these values are as follows. The additional Bench Marks (B/M) have not been installed. The allowable values may slightly change as As-Built locations of these B/M are incorporated in calculations.

a. Locations of Deep Seated B/M

Drawing 7220-C-1493 (provided with Serial 17304 dated 6/7/82) now shows all building instrumentation, has revised formula for calculating Δ_1, and the three new DSBs. The three new DSBs are DSB-AS2, DSB-AS3, and DSB-AS4. DSB-AN2 was provided in the railroad bay to provide redundancy to the existing DSB-AN1. DSB-AS3 and DSB-AS4 are being located near Column Line G. In the north-south direction, the main auxiliary building north of Column Line G is more rigid than the portion between Column Lines G and H. Therefore, it is more accurate to measure relative displacements ($\Delta 1$) with respect to DSB-AS3 and DSB-AS4 rather than DSB-AS1 and DSB-AS2.

b. Results of Calculations

The allowable relative vertical structural displacements between the DSBs near Column Line G and the DSBs near the south wall of the electrical penetration area (EPA) and of the control tower are shown in Table 1.4. To arrive at the allowable relative displacements, the calculated existing

structural displacements were subtracted from the displacements obtained from the analyses described in Part d of this response.

TABLE 1.4

Soil Subgrade Modulus Under Main Auxiliary Building	Allowable Relative Vertical Displacment, W1 (in) DSB-2E	DSB-3E	DSB-3W	DSB-2W
30 kcf (See Fig 1.4.2)	0.67	0.76	0.72	0.68
70 kcf (See Fig 1.4.3)	0.63	0.73	0.71	0.56

The locations of the DSBs are shown in Figure 1.4.1. All the relative displacements are with respect to the reference point near Column Line G.

The compatibility of the floor/roof beam connections to these building displacements is being reviewed.

Because allowable displacements are slightly smaller for the subgrade modulus (k=70 kcf), the allowable deflections to be used in the field for the construction will be based on the subgrade modulus (k=70). Construction would be stopped at the allowable displacement limits. An evaluation of the construction will be made at a lower level of displacement. These lower level displacements are termed "trigger limits." The trigger limits will be established at lower than one-half of the allowable displacements.

The values in Table 1.4 are larger than the corresponding values presented to the NRC in the meeting of February 26, 1982, at Bethesda, Maryland. The reasons for this increase are as fol`ows:

1. As noted in the February 26 meeting, the results presented were based on the first iteration of the analysis. However, the results presented now are based on the last iteration of the analysis.

2. The reference point DSBs have been moved north toward the railroad bay, thus increasing the north-south distance between the reference DSBs (near Column Line G) and the DSBs near the south edge of the control tower and EPAs.

c. Discussion of Significance of Results

The allowable vertical relative displacements shown in Table 1.4 are the allowable structural deformations for the south edge of the control tower and EPAs with respect to Column Line G. For the loading (unfactored dead weight of the structure, blockwalls, equipment, and 25% of live load), the structure deflects to the south because the control tower and the EPAs are founded on fill material. Figure 1.4.4 shows the deflection curve under the applied loads. Because of the relatively higher structural stiffness between Column Lines A and G, the displacement variation between Column Lines A and G was considered to be linear. The difference in displacement between the DSBs adjacent to Column Line Kc and G also include the rigid body tilting. The structural deformation $\Delta 1$ for DSB-3E is computed as follows:

$$\Delta 1 = \Delta Kc - (\Delta G + \frac{\Delta G - \Delta A}{L1} \times L2)$$

$$= \Delta Kc - (1 + \frac{L2}{L1})\Delta G + \frac{L2}{L1} \times \Delta A$$

$$= \Delta(DSB\text{-}3E) - (1 + \frac{L(3E,AS4)}{L(AS4,AN1)}) \Delta(DSB\text{-}AS4)$$

$$= \Delta Kc - \left(1 + \frac{L2}{L1}\right)\Delta G + \frac{L2}{L1} \times \Delta A$$

$$= \Delta(DSB\text{-}3E) - \left(1 + \frac{L(3E,AS4)}{L(AS4,AN1)}\right) \Delta(DSB\text{-}AS4)$$

$$+ \frac{L(3E,AS4)}{L(AS4,AN1)} \times \Delta(DSB\text{-}AN1)$$

(format used in Drawing 7220-C-1493)

where:

L1 = L(AS4,AN1) = north-south horizontal distance between (DSB-AS4) and (DSB-AN1)

L2 = L(3E,AS4) = north-south horizontal distance between (DSB-3E) and (DSB-AS4)

$\Delta KC = \Delta(DSB\text{-}3E)$

$\Delta G = \Delta(DSB\text{-}AS4)$

$\Delta A = \Delta(DSB\text{-}AN1)$

Δs (except $\Delta 1$) are the absolute vertical deflections at the DSBs. The structural deformations $\Delta 1$ for DSB-2E, DSB-3W, and DSB-2W are computed in a similar manner.

d. Calculation Technique

The allowable relative vertical displacements shown in Table 1.4 were determined from a nonlinear analysis of the structure performed to include the effects of concrete cracking. A linear finite-element program, BSAP CE800, was used. To achieve the effect of non-linearity, an iterative process was used.

A three-dimensional, finite-element model was used for the analyses. This model was discussed with the NRC structural staff and a copy of the model was provided to the staff during the NRC audit held at Bechtel's Ann Arbor office on February 1 through 5, 1982.

The purpose of the analyses is to arrive at the relative displacements which the structure can tolerate. In these analyses, relative displacements were induced by eliminating the soil springs to represent the first stage of soil removal and by reducing the stiffness of certain soil springs representing the fill under the EPAs and the control tower.

The flow diagram (see Figure 1.4.6) shows the step-by-step procedure for the analyses. Criteria and assumptions for the analyses are presented below:

1. Ec value: Same as ACI 318 (no reduction)

2. Reduced stiffness: In the cracked areas, the reduction in stiffness based on rebar. Initial crack based on $3\sqrt{fc'}$ for shear and $4\sqrt{fc'}$ for tension.

Criteria 1 and 2 were discussed and agreed upon with the NRC during the staff audit held at Bechtel's Ann Arbor office on March 16 through 19, 1982. These criteria are shown on Attachment 2 to the letter from Consumers Power Company to the NRC, File 0485.16, B3.0.1, Serial 16597.

3. Convergence would be assumed to be achieved when the following criteria are met.

   a. The number of elements to be cracked continues to progressively reduce.

   b. The number of elements to be cracked based on the last computer run is not more than 10% of the total number of elements cracked.

4. The average strain in the cracked elements is limited to two-thirds of the yield strain.

AUXILIARY BUILDING UNDERPINNING
DEEP SEATED
BENCH MARK LOCATION PLAN*

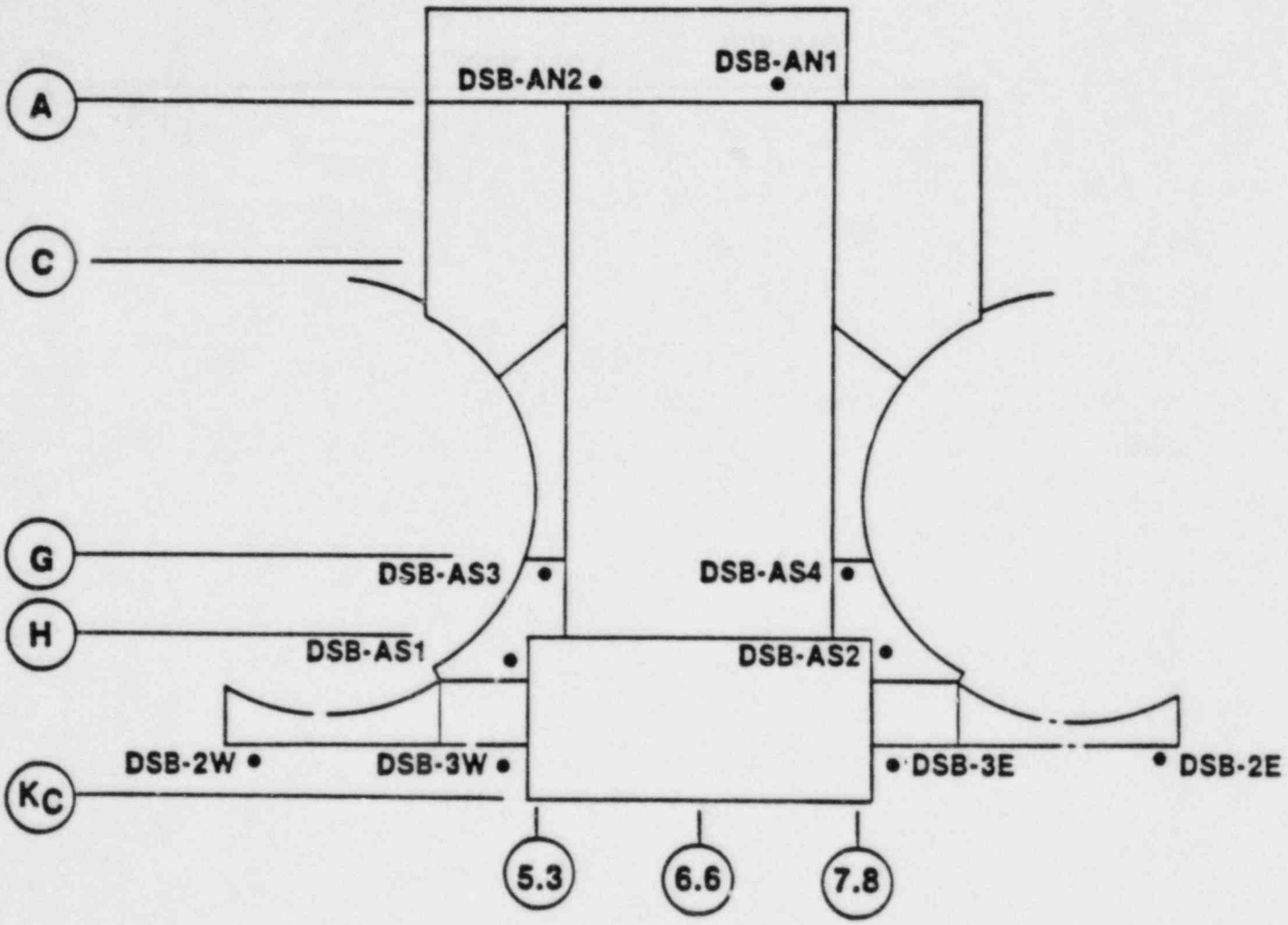
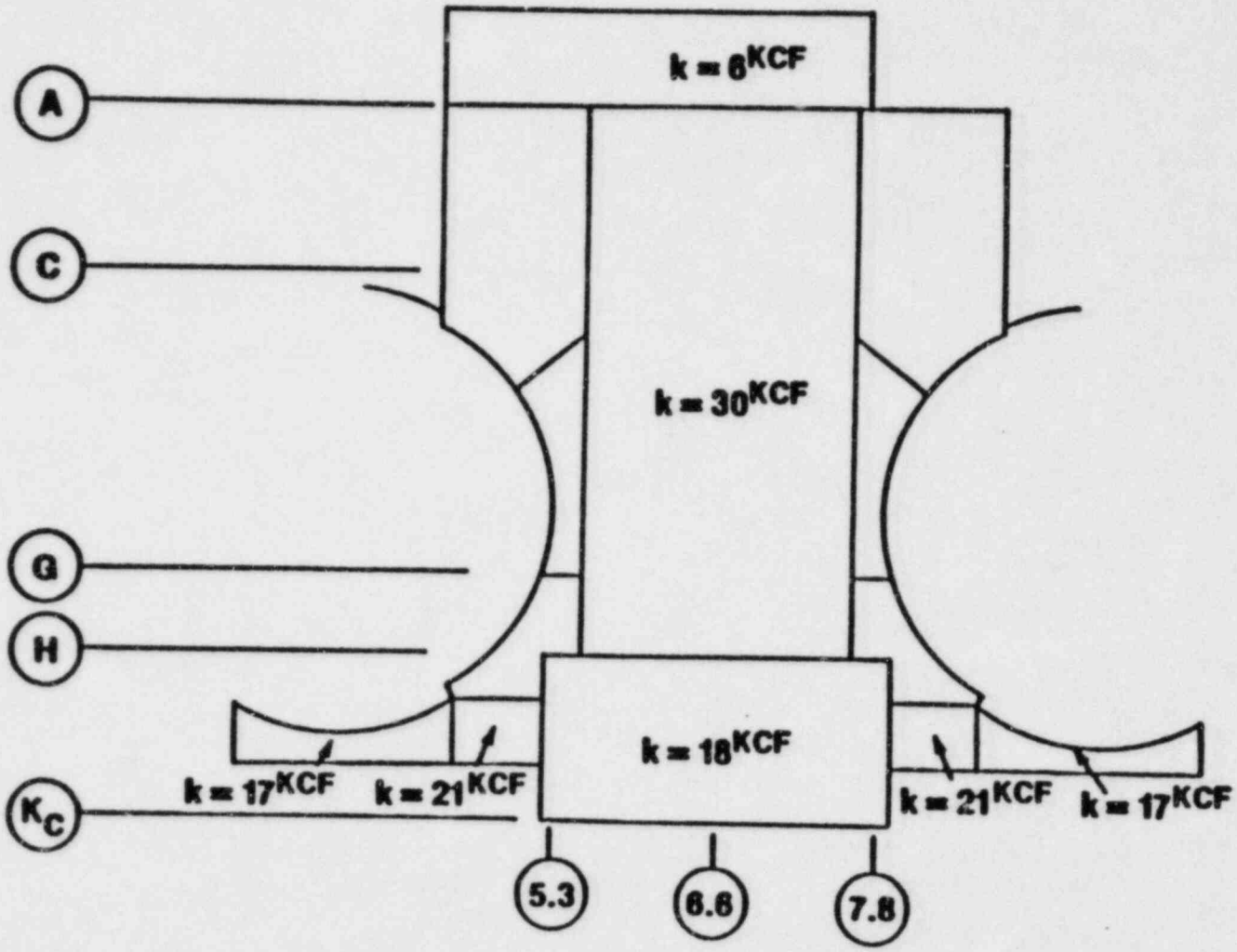


FIGURE 1.4.1

*Exact locations are shown on drawings C-1490 and C-1491

G-2518-02

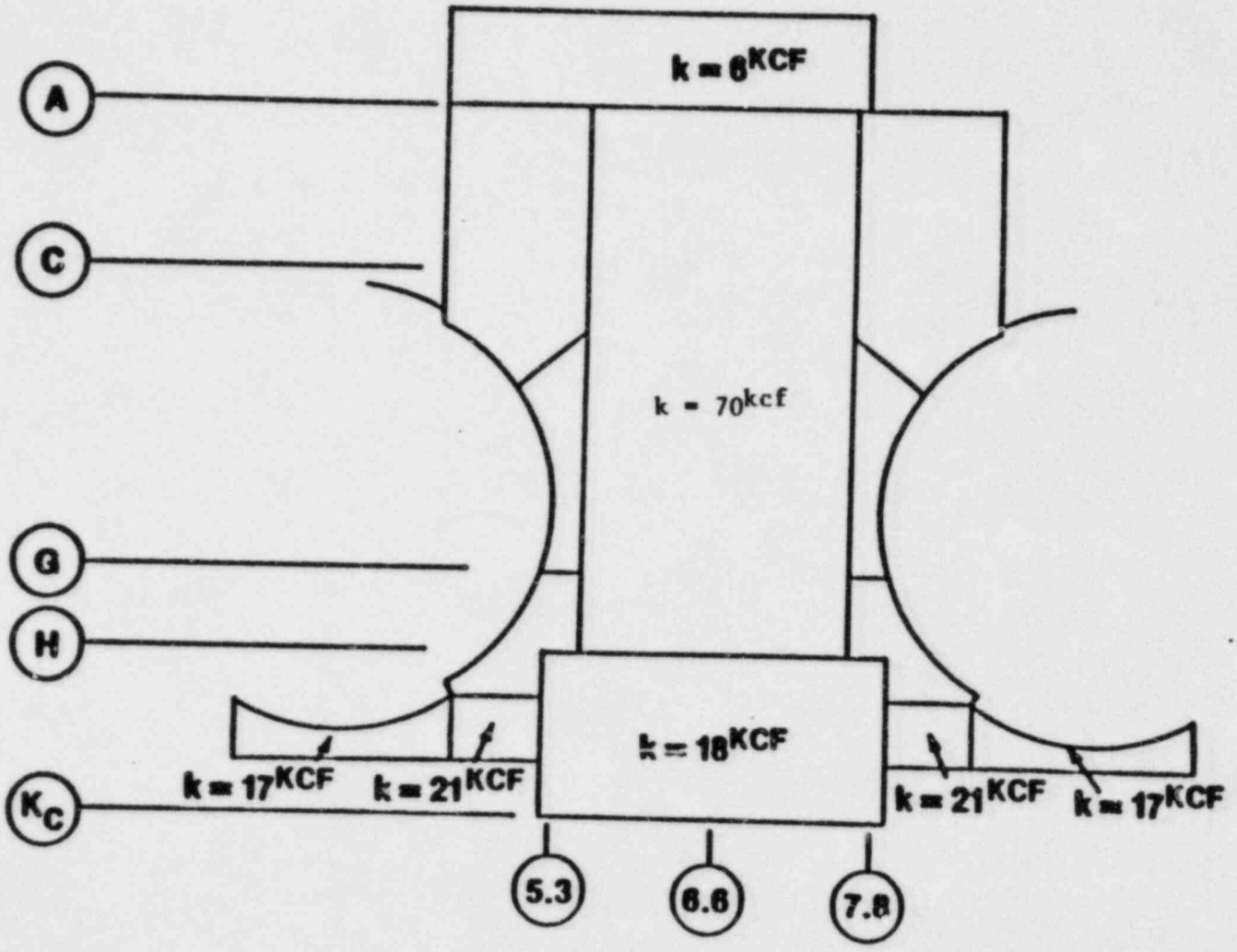
AUXILIARY BUILDING UNDERPINNING



MIDLAND UNITS 1 AND 2
AUXILIARY BUILDING UNDERPINNING 1/26/82

FIGURE 1.4.2 ASSUMED EXISTING SOIL SUBGRADE MODULUS FOR SOIL UNDER THE AUXILIARY BUILDING

AUXILIARY BUILDING UNDERPINNING



MIDLAND UNITS 1 AND 2
AUXILIARY BUILDING UNDERPINNING 1/26/82

FIGURE 1.4.3 ASSUMED EXISTING SOIL SUBGRADE MODULUS VALUES FOR SOIL UNDER THE AUXILIARY BUILDING

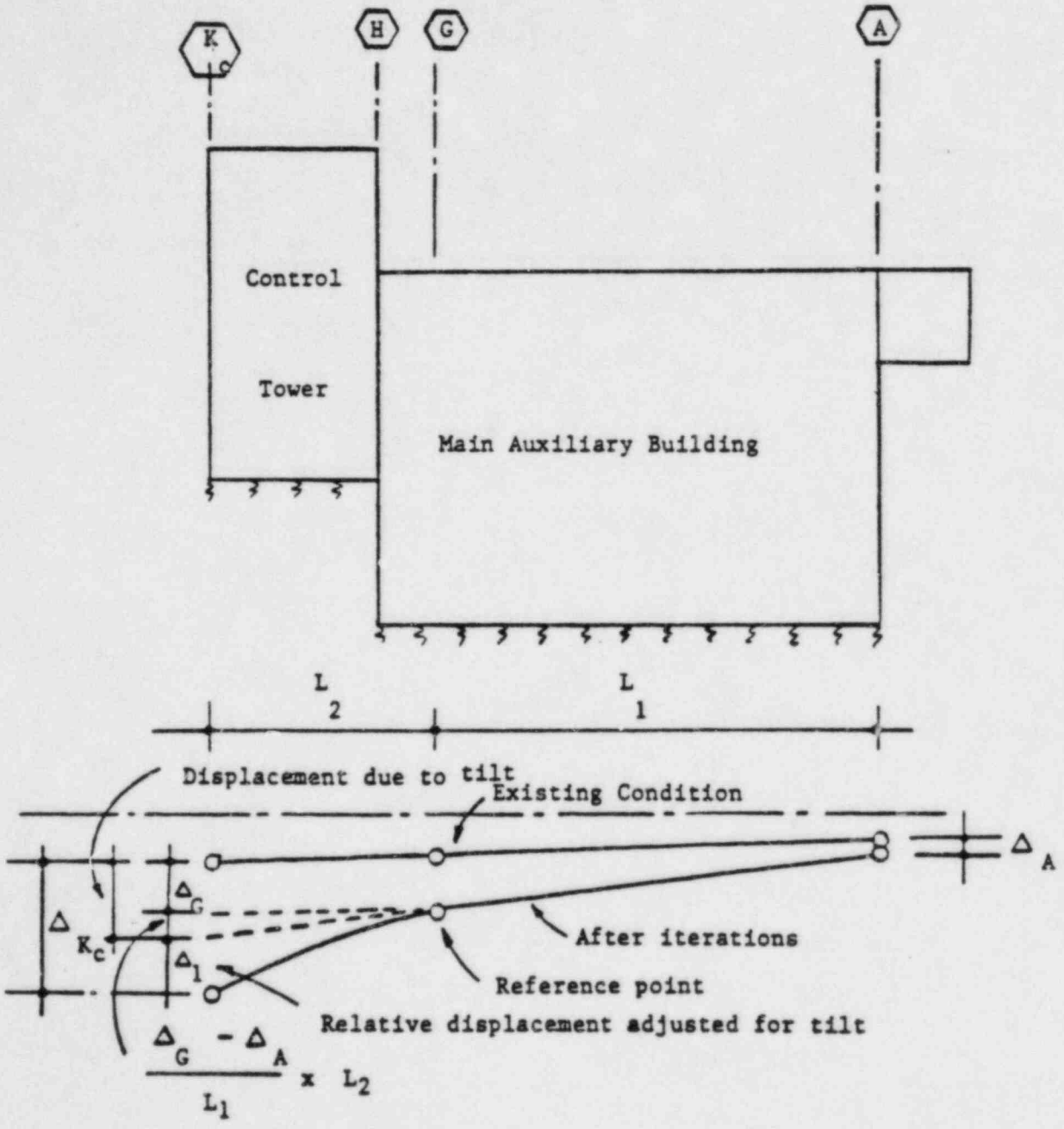
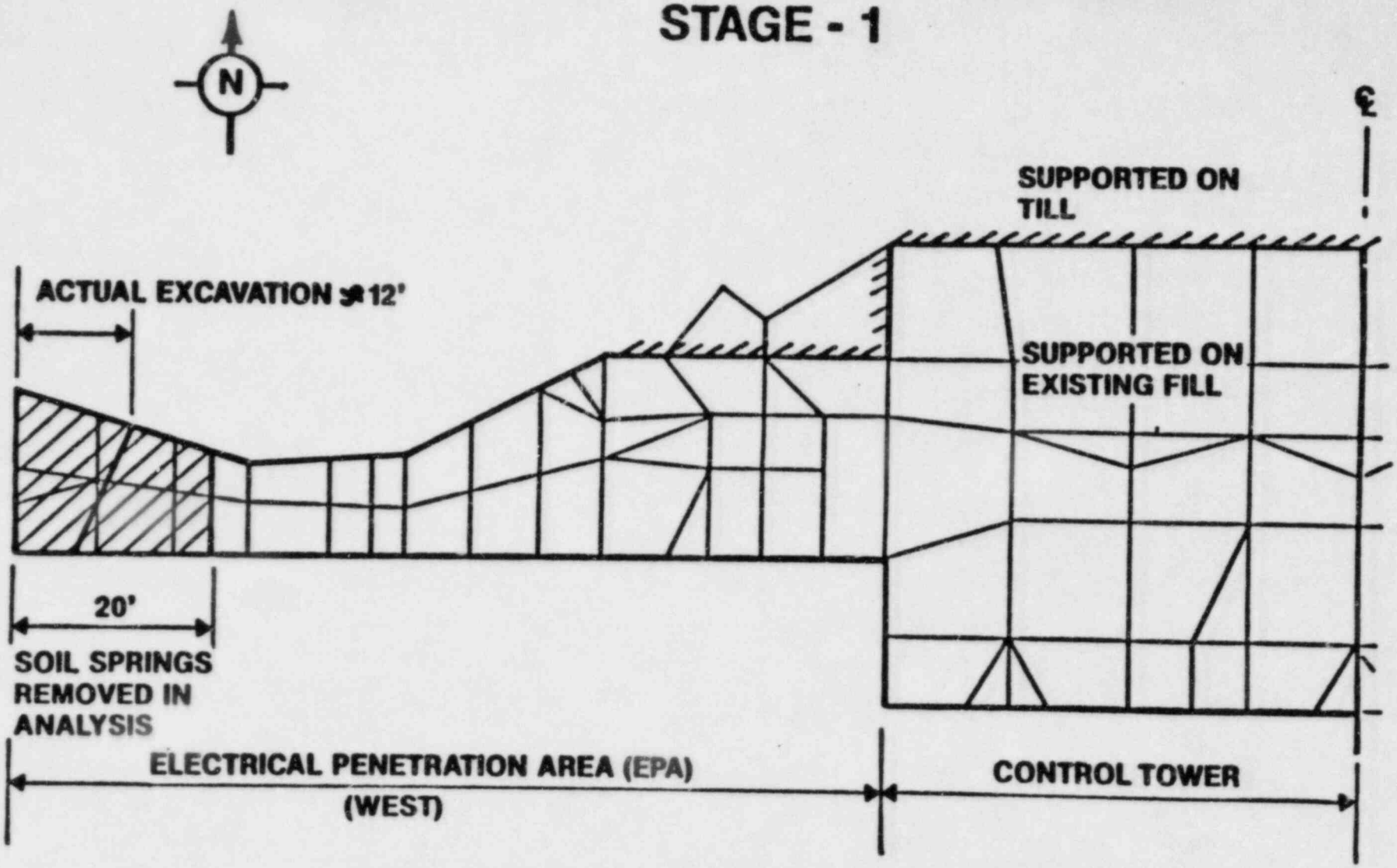


FIGURE 1.4.4 DEFLECTION CURVE AND STRUCTURAL DEFORMATION

AUXILIARY BUILDING UNDERPINNING
CONSTRUCTION SEQUENCE
STAGE - 1



MIDLAND UNITS 1 AND 2
AUXILIARY BUILDING UNDERPINNING 1/26/82

FIGURE 1.4.5

G-1882-21

ANALYSIS SCHEME

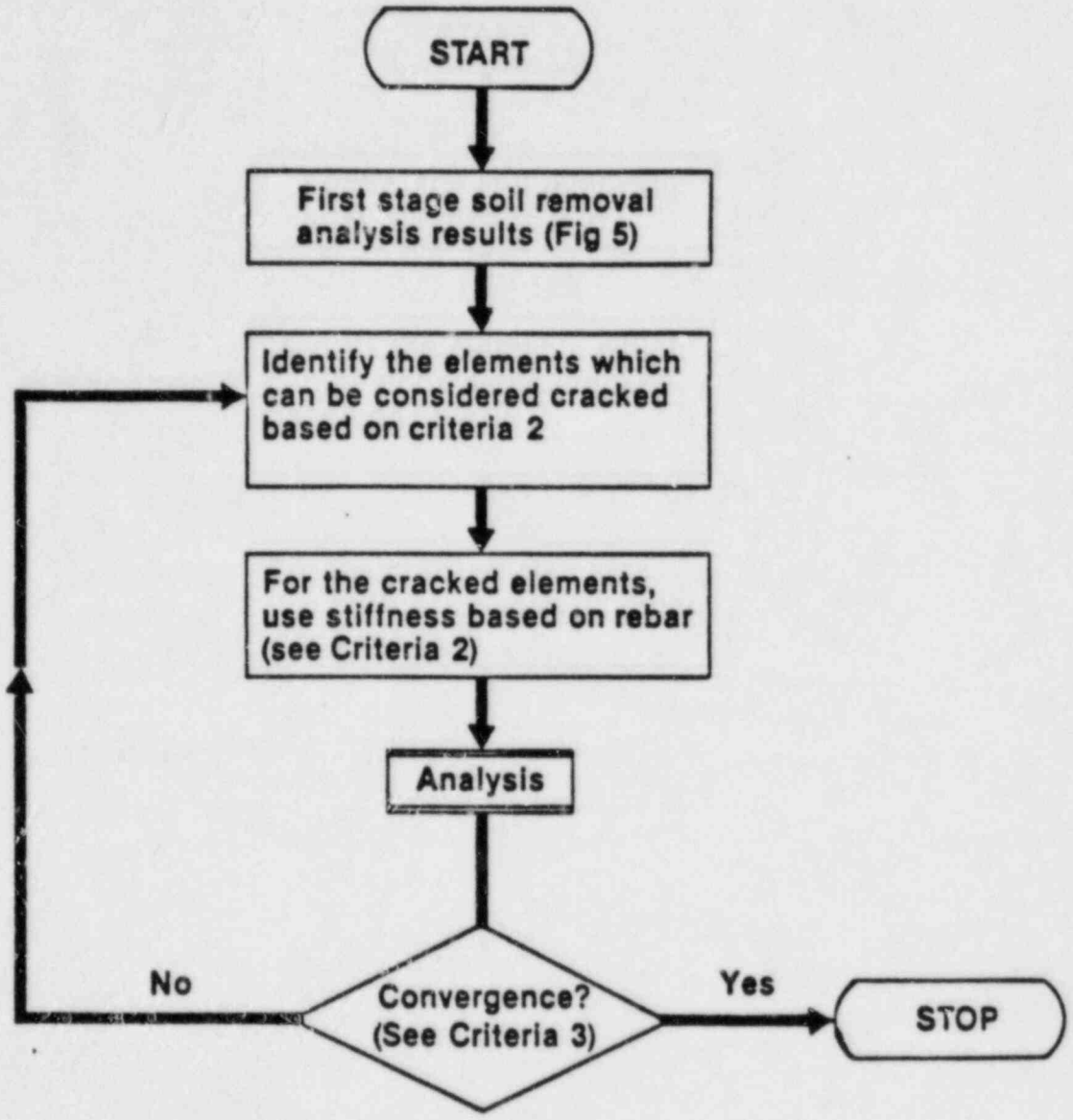


Figure 1.4.6

G-2518-01

REQUEST 1.5

Horizontal movement acceptance criteria for Phase 3 for instruments at top of EPAs and control tower.

RESPONSE

Our response to this request along with the NRC's question was contained in Serial 16597 dated March 31, 1982 and is summarized as follows:

Review Concern 1 - Provide instrumentation details and horizontal movement tolerance criteria with basis, for 3 instruments to be installed at top of EPA's and Control Tower (Telephone record, March 8, 1982 Par. 4.c and Par. 5).

Response - Three relative movement devices will be provided to measure the horizontal movement between the turbine building and the auxiliary building. These devices are as follows:

Unit 1 EPA to Turbine Bldg el 705	DMD-11
Control Tower to Turbine Bldg el 705	DMD-12
Unit 2 EPA to Turbine Bldg el 705	DMD-13

These devices will be installed and read for background during phase 2A and 2B. Acceptance criterial will be established for Phase 3. Each monitoring point will be treated as a separate data base. The monitoring details are shown on drawing C-1493(Q) (Figure 4).

REQUEST 1.6

As-built report with confirmatory detail on underpinning in FSAR upon completion of construction.

RESPONSE

Upon completion of the underpinning a report will be prepared and submitted addressing the as-built condition of the underpinning and structures. This report will be submitted within 6 months after the completion of construction.

REQUEST 1.7

Acceptance criteria for strain monitors for Phase 3

RESPONSE

The acceptance criteria for strain monitoring is shown in Attachment 5-3 (Dwg 7220-C-1493) to Serial 17304 dated June 7, 1982. (Review Concern 5E).

REQUEST 1.8

Acceptability of 1.5 FSAR SSE versus SSRS as bounding design.

RESPONSE

The underpinnings for the Auxiliary Building and the Service Water Pump Structure (SWPS) and the new ring beam for the Borated Water Storage Tank (BWST) are required to be designed so as to withstand the forces from the earthquake characterized by the Site Specific Response Spectrs (SSRS). Since, during the initial design phases of the underpinnings and the new ring beam, final staff concurrence on the SSRS was not yet available, a conservative assumption was made for the design. The seismic forces used in the design were obtained by multiplying the results from the analysis using Midland FSAR design SSE spectra with median soil case by a factor of 1.5

Since Staff concurrence on SSRS was subsequently obtained studies were performed to show that the assumed seismic response on the underpinnings and the new ring beam would be more than the response obtained by using SSRS input which would result in a conservative design.

The studies for the auxiliary building and SWPS compared the nodal vector accelerations from an analysis using the Midland FSAR response spectra and nominal soil case multiplied by a factor of 1.5 to the nodal vector accelerations from an analysis using the SSRS and Midland FSAR envelope response spectra together with three soil cases, ie, nominal and plus or minus 50%. The comparisons were made for selected key nodes which are representative of the governing structure responses.

For the auxiliary building underpinning, the significant node for comparison is node 66 (free end of the electrical penetration areas at elevation 695').

Node	$\frac{\text{FSAR x 1.5}}{\langle\text{SSRS \& FSAR}\rangle}$
66	1.22

< > ≡ Envelope of response spectra curves

The same ratios for the remaining portions of the underpinning were more conservative.

For the SWPSs, the most significant node for comparison is node 14 (foundation level of the lower base slab at elevation 589.5').

Node	$\frac{\text{FSAR x 1.5}}{\langle\text{SSRS \& FSAR}\rangle}$
14	1.15

The same ratios for the remaining portions of the building underpinning were more conservative.

For the BWST, the comparison used the largest acceleration from both the including bottom pressure (IBP) and the excluding bottom pressure (EBP) cases. However, the EBP case is used to calculate forces on the tank and IBP case is used to calculate forces on the foundation. The largest acceleration for the IBP case was used to calculate base shear. When this was done, the base shear due to the SSRS-FSAR envelope, was 2% less than the FSAR base shear multiplied by 1.5. All other shears and moments on the foundation due to the SSRS-FSAR envelope were less than those caused by the FSAR multiplied by 1.5

In conclusion, the 1.5 x FSAR response spectra analysis is conservative for the auxiliary building and the SWPS underpinnings, and the BWST foundation.

REQUEST 1.9

Method to be followed for transfer of jacking load into permanent wall.

RESPONSE

The detailed final load transfer procedure is currently under development. The final loads in the jacking groups have been finalized and the structure found to be acceptable. The intermediate increments of loads in the jacks are being finalized. A brief overview of the anticipated procedure is as follows: (See Figure 1.9-1):

1. Install three groups of jackstands on the permanent underpinning wall under the east and west EPAs

   a) Group 1 (jacks 1 through 9) will carry 2800 kips, the load supported by the grillage system at pier 8

   b) Group 2 (jacks 10 through 22) will carry 2860 kips, the load supported by the grillage system at pier 5

   c) Group 3 (jacks 23 through 36) will carry 3630 kips, the load supported by the grillage system at pier 2

2. Add a predetermined portion, which is being finalized, of load to Groups 1 and 3.

3. Remove the same load from the grillage 2 and 8 jacks.

4. Monitor the grillage 5 jacks and the group 1 and 2 jacks.

a) If the pressure in the grillage 5 jacks increases, jack an additional load that corresponds to this increased pressure into Groups 1 and 3 jacks to decrease the pressure in the Grillage 5 jacks to their original pressure.

b) If the pressure in Group 1 and 2 jacks increases after removing the load from the grillage 2 and 8 jacks, convert the pressure to load and subtract this load from the next step.

5. Repeat steps 1 through 4 until all loads on the grillage 2 and 8 jacks have been transferred to the Group 1 and 3 permanent jacks.

6. Remove a predetermined amount, which is being finalized, of load from the grillage 5 jacks. The pressure in the Group 1 and 3 permanent jacks will increase.

7. Increase the load in the Group 2 permanent jacks until the pressure in group 1 and 3 jacks is reduced to the pressure at the end of step 5.

8. Repeat steps 6 and 7 until about 50% of the load on grillage 5 jacks is transferred to the group 2 permanent jacks.

9. Install group 4 jacks along column lines 5.3, 7.8, K_c , and H_k. Group 4 jacks in the final condition will carry loads as follows:

a. Walls on column lines 5.3 and 7.8 will carry loads of 4165 kips each.

b. Wall on column line K_c will carry 8250 kips.

c. Column line H_k will carry 970 kips.

10. Reduce the pressure in the jacks on the H_k and CT piers a predetermined amount, which is being finalized, the pressure in group 1, 2 and 3 jacks will increase.

11. Increase the load in the group 4 permanent jacks until the pressure in group 1, 2 and 3 jacks is reduced to the pressure at the end of step 8.

12. Repeat steps 10 and 11 until all load from the H_k piers and the desired load from the CT piers is transferred to the group 4 permanent jacks.

13. Repeat Steps 6 and 7 until the remaining load on the grillage 5 jacks is transferred to the group 2 permanent jacks.

14. If movement of the EPA or control tower occurs at any time during load transfer, proceed as follows:

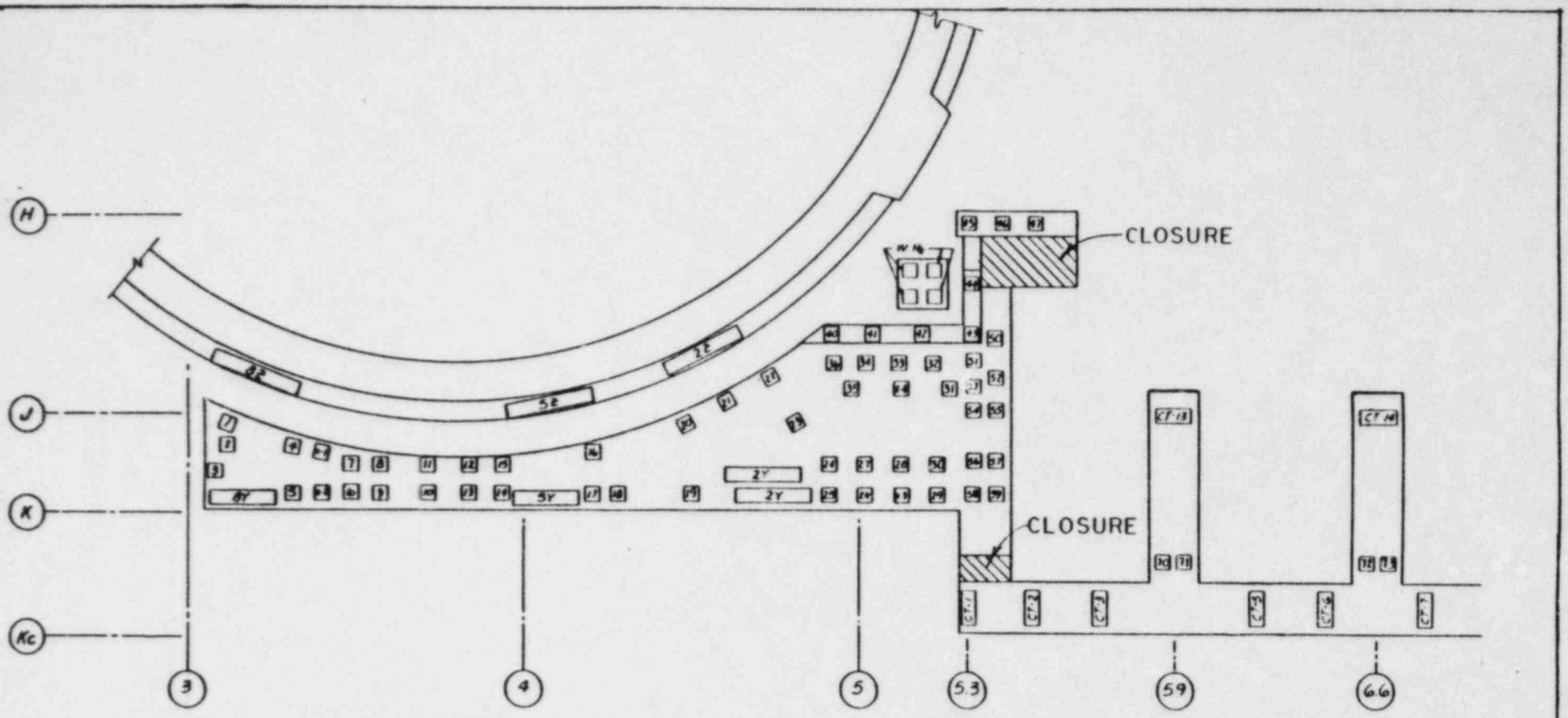
    a. If downward movement of the EPA at the end of grillage 8 relative to the end of grillage 2 end occurs, engage X-1 and X-2 jacks.

    b. If downward movement of the EPA at the end of grillage 2 relative to the end of grillage 8 end occurs engage X-3 and X-4 jacks.

    c. If downward movement of the ends of either grillage 2 or 8 continues, re-engage the grillage 2 or 8 jacks respectively.

    d. If downward movement of the control tower at K_c line relative to H line occurs, increase the active system pressure.

e. If downward movement at the control tower at K_c line still continues, re-engage all grillage jacks.



PLAN

GROUP 1 JACKS 1-9
GROUP 2 JACKS 10-22
GROUP 3 JACKS 23-36
GROUP 4 JACKS 40-47, 50-59, 70-73
X1, X2, X3, X4 CONTINGENCY

EAST SIDE SIMILAR

CONSUMERS POWER COMPANY
MIDLAND PLANT UNITS 1 & 2

JACKING SEQUENCE
PERMANENT WALL

FIGURE 1.9-1

REQUEST 1.10

Complete design analyses of permanent underpinning wall.

Our response to this request was contained in an enclosure to Serial 17304 dated June 7, 1982 and is identified as Review Concern 2 for Construction Phase 4

REQUEST 1.11

Updated construction sequence for Phases 3 and 4.

RESPONSE

The construction sequence for Phase 3 was provided in our previous correspondence Serial 17225 dated May 14, 1982.

The construction sequence for Phase 4 is being prepared. A summary description of the preliminary sequence is provided below.

1. The south wall under column line K_c, incorporating piers CT1 through CT12 and the walls connecting CT13, CT14, and CT15 to the K_c line wall will be constructed.

2. The north-south walls on column lines 5.3 and 7.8 under the control tower and the walls under the EPA will be constructed.

   Horizontal construction joints will be provided at suitable heights to remove temporary struts between reactor building foundation and piers under the turbine building. These struts will be replaced by shorter struts to accommodate the wall. The walls will be constructed up to approximately elevation 598'. At this time, closure strips will be left at column lines H and K_c.

3. As the walls constructed under the control tower reach an approximate elevation of 582 ft., the area will be backfilled and the diaphram slab at el 584 will be constructed and connected to the walls on column lines H and K_c. The lower level struts will be removed before constructing the slab.

4. At the end of Step 2, the weight of the EPA and control tower will be transferred sequentially from the temporary to permanent supports as described in response to Item 1.9.

5. Following load transfer in Step 4, temporary support girders will be removed. The structure will then be supported on permanent walls for at least 30 days or until the acceptance criteria for soil settlement is satisfied.

6. During the period following load transfer, backfilling with compacted granular material will be performed.

7. As construction proceeds, dowels will be inserted from the top or rock bolts drilled to the underside of the existing foundation at suitable intervals and grouted. At the same time, horizontal dowels between the vertical faces of the underpinning walls and the permanent structure on column line H below elevation 614' will be drilled and grouted.

8. At the end of Step 6, the gap between the undersides of the superstructure and top of the underpinning walls will be backfilled with concrete and grouted. At this time, the closure strips described in Step 2 will be concreted and grouted and the upper level struts under pier CT will be removed.

9. The backfilling of access drifts will be sequenced to suit construction.

REQUEST 1.12

Settlement monitoring program to be required during plant operation with action levels and remedial measures identified (Tech. Spec.). Include RBA, EPA and Control Tower.

RESPONSE

The proposed Technical Specifications for the Midland Plant Units 1 and 2 are currently under development by Consumers Power Company for both incorporation into FSAR Chapter 16 and as the basis for issuance of OL Appendix A. The Company anticipates submitting these proposed Technical Specifications for NRC review in the Fall of 1982. The Technical Specification addressing settlement of all Seismic Category I plant structures will be submitted as a part of the overall proposed Technical Specification for the Midland Plant.

This Technical Specification will meet the requirements of Section 50.36, "Technical Specifications," of 10 CFR Part 50 "Domestic Licensing of Production and Utilization Facilities." Limiting conditions for plant operation (LCO), which will be applicable to all modes of operation, will be set forth for each Seismic Category I structure. Calculated settlement values (based on ultimate design) for each structure will be set forth in the LCO. (These values may have to be revised based on As-Built conditions to be assessed six months after the completion of underpinning as stated in response to Item 1.6.) Settlement values set forth in the LCO as requiring actions will be conservatively based on a fraction of the acceptable settlements for each Seismic Category I structure.

Should a LCO settlement value (action limit) be reached or exceeded, the Technical Specification will require that a settlement evaluation be completed and the investigation results and conclusions submitted to the NRC within a specified time period. The conclusions of this settlement evaluation will detail additional actions required to ensure protection of the health and safety of the public. Utilizing this approach will provide for the implementation of appropriate remedial measures which are dependent on the nature of the settlement.

The surveillance requirements section of the Technical Specification will address the settlement monitoring program. Survey settlement measurements for all Seismic Category I structures & tanks will be conducted at the frequency indicated in FSAR Section 2.5.4.13.2 on monuments to be specified in the surveillance requirements section. These measurements will provide a record of settlements experienced versus time and will be utilized to provide confirmation of predicted settlements. Permanent benchmarks and control monuments have been established at the site and used for survey reference points. Periodic evaluation checks of these benchmarks and control monuments will be made against the offsite control points.

REQUEST 1.13

Plans and details for permanently backfilling underpinning excavations including compaction specifications for granular fill under FIVP.

RESPONSE

The plans and details for the permanent backfill of the underpinning excavation has been provided in the response to review concern No 2, Phase 4 provided in Enclosure 2 to Serial 17204 dated June 7, 1982. Existing Bechtel specification 7220-C-211 (Q), "Purchase of Structural Backfill", will provide the basis for the compaction requirements for the granular fill under the FIVP.

REQUEST 1.14

Procedure to be required for detecting extent of planar openings uncovered in drift excavations and controls to minimize their effects.

RESPONSE

Our response to this request was contained in an enclosure to Serial 17225 dated May 14, 1982 and is summarized as follows:

Review Concern 11 - Explain nominal area of allowable void without grouting and method of measurement, while tunneling under the turbine building.

Response - A void should not exceed 8 feet beyond the access drift wall lagging line without evaluating the need to grout or use other remedial actions. The allowable void depth is based on the maximum distance the turbine building mat can safely span in one-way action. Therefore, the length of the void is not critical. The depth of the void is considered to be the maximum distance a 1/4" X 1" wooden rod can be placed into the void, without excessive force, with the rod placed approximately perpendicular to the access drift wall.

INFORMATIONAL REQUEST 2

Provide the following information regarding the Service Water Pump Structure:

REQUEST 2.1

Acceptability of 1.5 FSAR SSE versus SSRS as bounding design.

RESPONSE

See response to Question 1.8

REQUEST 2.2

Sliding calculation using site-specific response spectra (SSRS) seismic loads and provide results with basis for assumed soil input parameters.

RESPONSE

The soil parameters used in the sliding calculations are based on the Woodward-Clyde borings of 1981.

The following parameters were established for the glacial till:

Angle of internal friction (ϕ) = 36°

Cohesive Force = 730 pcf

The angle of internal friction, ϕ for the till material was established as 29° (refer to Question 41 of the Responses to NRC Requests regarding plant fill).

The results of sliding calculations were provided in the response to in Serial 16656 dated April 23, 1982. That response is repeated below:

Confirmatory Issue 6 - Perform sliding calculations using site-specific response spectra (SSRS) seismic loads and provide results.

Response - The stability analysis calculations have been refined using seismic loads equal to 1.5 times the Midland FSAR safe shutdown earthquake (SSE) loads. these exceed the SSRS seismic loads. Factors of safety against sliding are now 1.45 in the north-south direction and 1.5 in the east-west direction. These values exceed the required value of 1.1. Hence, the foundation is acceptable.

REQUEST 2.3

Stress condition for existing parts of structure:

(a) Maximum stresses

(b) Critical combinations

(c) Identify true critical elements based on actual rebar

RESPONSE

Our response to this request was contained in an enclosure to Serial 16656 dated April 22, 1982. That response is repeated below:

Confirmatory Issue 11 - Provide more information as to stress condition for existing parts of structure:

Maximum stresses

Critical combination

Identify true critical elements based on actual rebar

(To demonstrate the behavior of the structure, provide the above information for a loading combination which generally gives governing stresses for the structure.)

Response - The building has been analyzed for all the applicable loading combinations. The various structural components have been designed for the governing load combinations. It has been noted that the following load combination generally governs.

$$U = 1.0\ (D + F + L + H + S + P_L + E')$$

where

H = lateral earth pressure

S = surcharge

E' = Midland FSAR SSE

For each wall and slab in the structure, plots of the element forces due to static, preload, and seismic forces at a vertical and horizontal line of elements were obtained to study the building behavior. A copy of the graphs for the south wall are attached as Figures SWPS-2 through 10.

REQUEST 2.4

Calculation for determining lateral earth pressures under dynamic loading.

RESPONSE

The dynamic lateral soil pressures applied to the SWPS finite element model were calculated in accordance with the diagrams presented in FSAR Figure 2.5-45. The dynamic soil increment for each portion of the SWPS was calculated based on the actual soil depth acting on that particular portion of the building. For the north wall of the cantilevered portion of the SWPS, the dynamic increment was calculated based on a soil depth of 17 feet 0 inch (from El 617'-0" to 634'-0"). This is the same soil depth used to calculate the static pressure on this portion of the building.

For the north wall of the lower portion of the SWPS, the dynamic increment was calculated based on a soil depth of 30 feet 0 inch (from el 587'-0" to 617'-0"). In addition, the catilevered portion was assumed to be supported by the underpinning foundation and no surcharge was applied to the trapped soil area. Again, the soil depth used to calculate the dynamic increment was the same as that used to calculate the static earth pressure.

During their structural audit of the service water pump structure (SWPS) held March 16 through 19, 1982, NRC staff questioned why the dynamic soil increments for the north wall of the SWPS lower portion were not calculated based on the full soil depth from El 634'-0" to 587'-0". The following is a justification for the approach used in the design.

The underpinning foundation was assumed to behave as a buried structure and had no dynamic soil increments applied to it. Because the wall is confined on

both sides by soil, a dynamic increase in soil pressure on one side is resisted by an increase in soil pressure on the other. Thus, the seismic wave, in effect, passes through. This pass-through effect is then dissipated by the trapped soil through friction.

We believe the dynamic soil increments have been applied correctly; however, calculations have been performed to determine the effect on the structure of dynamic soil increments based on the full soil depth. These calculations indicate that for a north-south operating basis earthquake (OBE), the driving force on the SWPS due to the dynamic soil increments would increase by approximately 285 kips. The increase in stress due to the additional soil dynamic pressure is negligible compared to the stresses from the building inertial forces of approximately 4500 kips. With the increased forces, the factor of safety against sliding is still greater than the allowable. Calculations also indicate that an increase of this magnitude in the dynamic soil increments can safely be resisted by the walls for the effects of transverse bending.

The results of the investigation indicate that even applying the dynamic soil increment in the more conservative way, no adverse overall or local effects occur.

REQUEST 2.5

Settlement monitoring program to be required during plant operation with action levels and remedial measures identified (Tech Sepc.)

RESPONSE

See response to Question 1.12 contained in this document.

REQUEST 2.6

As-built report with confirmatory data on underpinning in FSAR upon completion of construction.

RESPONSE

See response to Question 1.6 contained in this document.

REQUEST 2.7

Report on crack evaluation to include consideration of the effects of multiple cracks.

RESPONSE

See response to Question 1.2 contained in this document.

SUPPLEMENTAL INFORMATION REQUESTS TO SECTION 2.0

The following responses are applicable to the Service Water Pump Structure.

SUPPLEMENTAL REQUEST 2.8

Provide the status on the interaction study between the Service Water Pump Structure and Circulating Water Pump Structure.

RESPONSE

The seismic displacement of the SWPS at the elevation of the CWIS roof slab is 1/4" for SSE. The CWIS concrete roof seismic deflection is expected to be of the same order of magnitude (calculations to verify this are being performed). The gap between the CWIS and the SWPS is 1". Hence there is an adequate gap between the two structures to prevent the hammering of the two structures during a seismic event.

SUPPLEMENTAL REQUEST 2.9

Provide an updated commitment on building monitoring during underpinning construction.

RESPONSE

Consumers Power Company will augment the strain monitoring program described in the enclosure to Serial 16656 dated April 22, 1982 as follows. Additional extensometers with an approximate 5 foot gage length will be located in critical areas. The location and acceptance criteria for these additional gages will be supplied at a later date. With this change Consumers will have a strain monitoring program which will support evaluations of the effect of singular and multiple cracking.

Consumers is also aware of the NRC Staff's interest in utilizing the results of the settlement monitoring program. As the result of discussions with the NRC Staff, Consumers proposes the following:

1. A minimum of four deep seated benchmarks will be installed.

2. Consumers will use the data from the settlement monitoring program as a back-up to the data obtained from the strain monitoring program when evaluating the structure for the effects of underpinning construction.

3. Consumers and the NRC Staff agree to the use of a trigger value of 50 mils for the elastic differential settlement between the north and south walls of the underpinned position of the of the building. The effects or structure rotation are excluded from this value.

INFORMATION REQUEST 3

Provide the following information regarding the Borated Water Storage Tanks:

REQUEST 3.1

Adequacy of governing load combination used in design

RESPONSE

Our response to this request was contained in an enclosure to Serial 14902 dated November 24, 1981. See Tables 1-6 and Figures 20 and 21 attached.

Tables 1, 3 and 5 and Figure 20, give the forces from the governing load combinations and the capacities of the New Ring Beam, valve pit members, foundation footing and interface shear connection for the FSAR loading combinations supplemented by Q.15 "Responses to NRC questions regarding plant fill." Tables 2, 4 and 6 and Figure 21 give the corresponding figures for the same components of BWST foundation for the ACI 349 supplemented by Reg Guide 1.142 criteria.

These tables and figures show that the new construction and the existing portions of the BWST foundation are adequate for both the Midland FSAR supplemented by Q 15 as well as ACI 349 supplemented by Reg Guide 1.142.

NRC REQUEST 3.1

TABLE 1

SUMMARY OF CALCULATED LOADS AND CAPACITIES OF THE NEW RING BEAM

(MIDLAND CRITERIA)

	Axial and Flexural Interaction					Axial, Shear, and Torsion Interaction				
			Calculated Load[2]					Calculated Load[2]			
Category	Load Combination[1]	Grid Number	Axial Tension	Moment	Moment Capacity[2,3]	Load Combination[1]	Grid Number	Axial Tension	Shear	Torsion[5]	Shear Capacity[2,4]
Region A	10	34	283	2,492	3,573	10	14	290	31	237	185
Region B	10	6	290	3,153	3,575	10	36	282	142	345	249
Region C	10	5	285	3,547	6,492	10	37	278	135	394	553
Region D	10	4	293	3,822	8,225	10	38	288	123	679	333
Region E	10	3	280	4,041	7,464	10	39	274	120	932	619

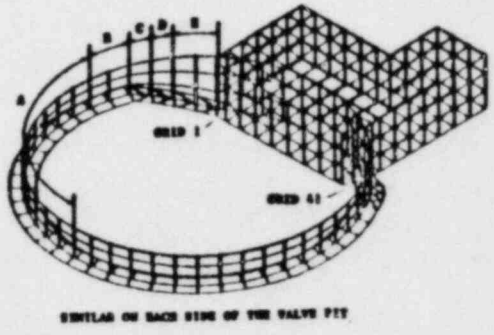
[1]Refer to Section 5.0 of the Design Report for the Borated Water Storage Tank Foundations for load combinations

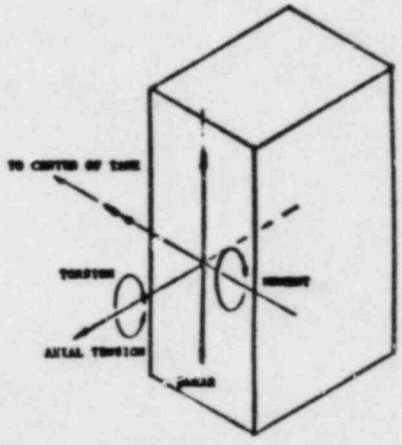
[2]Axial and shear are measured in kips; moment and torsion are measured in ft-kips

[3]Interaction capacities at calculated axial load

[4]Interaction capacities at calculated axial load and torsion

[5]Including torsion due to eccentricity of the interface shear force





NRC REQUEST 3.1

TABLE 2

SUMMARY OF CALCULATED LOADS AND CAPACITIES OF THE NEW RING BEAM

(ACI 349-76 LOAD COMBINATIONS AS SUPPLEMENTED BY REGULATORY GUIDE 1.142)

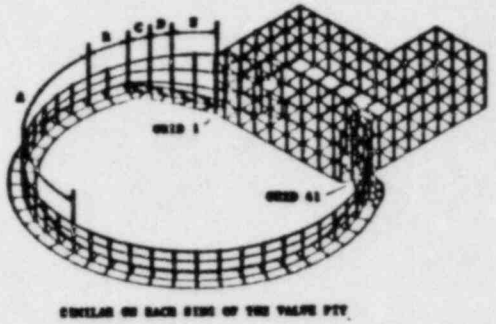
	Axial and Flexural Interaction					Axial, Shear, and Torsion Interaction					
			Calculated Load[2]					Calculated Load[2]			
Category	Load Combination[1]	Grid Number	Axial Tension	Moment	Moment Capacity[2,3]	Load Combination[1]	Grid Number	Axial Tension	Shear	Torsion[5]	Shear Capacity[2,4]
Region A	A	8	239	2,731	3,638	A	28	259	3	310	123
Region B	A	6	226	3,494	3,660	A	36	309	153	439	156
Region C	A	5	215	3,919	6,640	A	37	308	147	510	460
Region D	A	4	211	4,316	8,458	A	38	323	130	855	193
Region E	A	3	187	4,653	7,701	A	39	312	124	1,154	502

[1]Controlling ACI 349-76 load combination is:

A. U = 1.4D + 1.4T + 1.4F + 1.7L + 1.7H + 1.9E

where

D = dead load
L = live load
F = hydrostatic pressure from groundwater
T = differential settlement
H = lateral earth pressure
E = operating basis earthquake

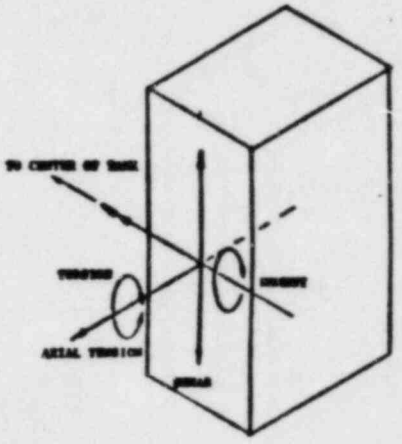


[2]Axial and shear are in kips; moment and torsion are measured in ft-kips

[3]Interaction capacities at calculated axial load

[4]Interaction capacities at calculated axial load and torsion

[5]Including torsion due to eccentricity of the interface shear force



NRC REQUEST 3.1

TABLE 3

SUMMARY OF CALCULATED LOADS AND CAPACITIES OF THE VALVE PIT MEMBERS

(MIDLAND CRITERIA)

Category	Load Combinations[1]	Shear				Axial and Flexural Interaction[2]		
		In-Plane		Transverse		Calculated		
		Calculated	Capacity	Calculated	Capacity	Axial Tension	Moment	Moment Capacity[3]
Exterior walls	10	198	332	-	-	180	903	1,570
Interior wall (ring wall)	10	51	204	-	-	172	2,734	3,700
Roof slab[4]								
N-S direction[6]	NA[6]	18.6	41.1	16.4	19.4	7.3	8.7	50.5
E-W direction[6]	NA[6]	18.6	60.3	4.9	19.9	0.1	3.7	33.0
Floor slab[4]								
N-S direction[6]	NA[6]	28.6	45.8	15.7	23.4	16.7	20.6	27.5
E-W direction[6]	10	28.6	42.8	11.4	22.9	33.3	5.3	8.5

[1]Refer to Section 5.0 of the Design Report for the Borated Water Storage Tank Foundations for load combinations

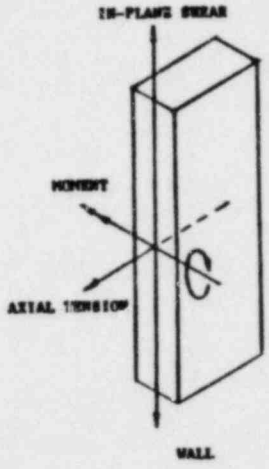
[2]Units are in kips and feet.

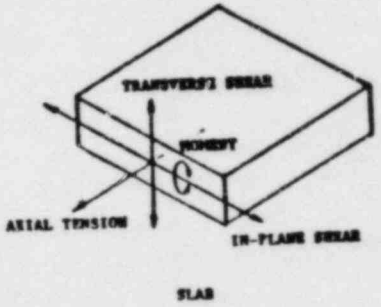
[3]Interaction capacity at calculated axial load

[4]Forces shown are per linear foot of slab.

[6]Based on maximum of all load combinations

[8]Direction of the axial force





NRC REQUEST 3.1

TABLE 4

SUMMARY OF CALCULATED LOADS AND CAPACITIES OF THE VALVE PIT MEMBERS

(ACI 349-76 LOAD COMBINATIONS AS SUPPLEMENTED BY REGULATORY GUIDE 1.142)

Category	Load Combinations[1]	Shear[2]				Axial and Flexural Interaction[2]		
		In-Plane		Transverse		Calculated		
		Calculated	Capacity	Calculated	Capacity	Axial Tension	Moment	Moment Capacity[3]
Exterior walls	A	200	331	-	-	192	1,411	1,570
Interior wall (ring wall)	A	71	206	-	-	156	3,381	3,700
Roof slab[4]								
N-S direction[6]	NA[8]	24.5	42.2	15.2	20.0	1.5	11.9	53.8
E-W direction[6]	NA[8]	24.5	60.3	5.3	19.9	0	3.6	33.0
Floor slab[4]								
N-S direction[6]	A	34.4	45.8	15.2	23.0	16.6	26.2	27.8
E-W direction[6]	NA[8]	34.4	42.9	13.7	23.0	32.7	7.6	9.4

[1]Controlling ACI 349-76 load combination is:

A. U = 1.4D + 1.4T + 1.4F + 1.7L + 1.7H + 1.9E

where

D = dead load
L = live load
F = hydrostatic pressure from groundwater
T = differential settlement
H = lateral earth pressure
E = operating basis earthquake

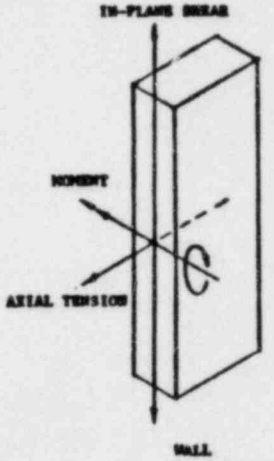
[2]Units are in kips and feet.

[3]Interaction capacity at calculated axial load

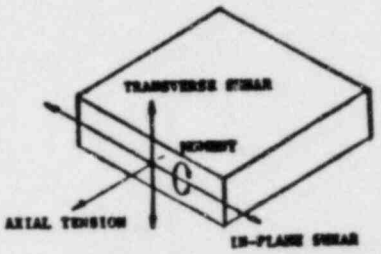
[4]Forces shown are per linear foot.

[6]Based on maximum of all load combinations

[8]Direction of the axial force



WALL



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NRC REQUEST 3.1

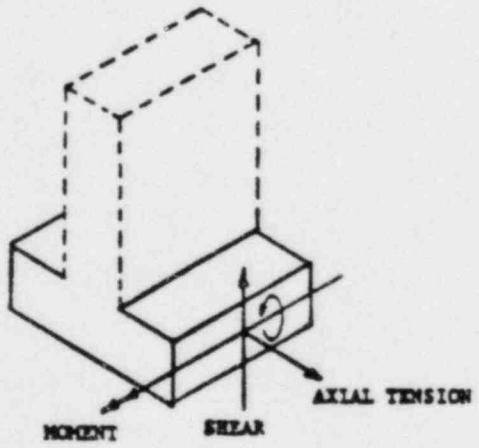
TABLE 5

SUMMARY OF CALCULATED LOADS AND CAPACITIES OF THE FOUNDATION FOOTING (MIDLAND CRITERIA)

Type of Load	Load Combination[1]	Calculated Load[2]	Capacity[2]
Moment	7	3.0	37.5
Axial Tension	7	19.5	30.3
Shear	7	3.7	15.6

[1] Refer to Section 5.0 of the Design Report for the Borated Water Storage Tank Foundations

[2] Units are in kips and feet per linear foot of footing



NRC REQUEST 3.1

TABLE 6

SUMMARY OF CALCULATED LOADS AND CAPACITIES OF THE FOUNDATION FOOTING (ACI 349-76 LOAD COMBINATIONS AS SUPPLEMENTED BY REGULATORY GUIDE 1.142)

Type of Load	Load Combination[1]	Calculated Load[2]	Capacity[2]
Moment	A	3.3	37.5
Axial Tension	A	24.5	30.3
Shear	A	4.1	14.8

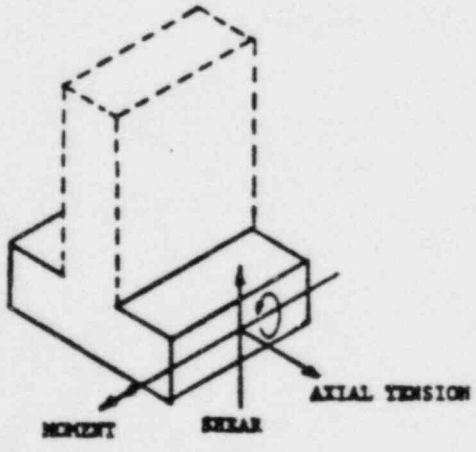
[1] Controlling ACI 349-76 load combination is:

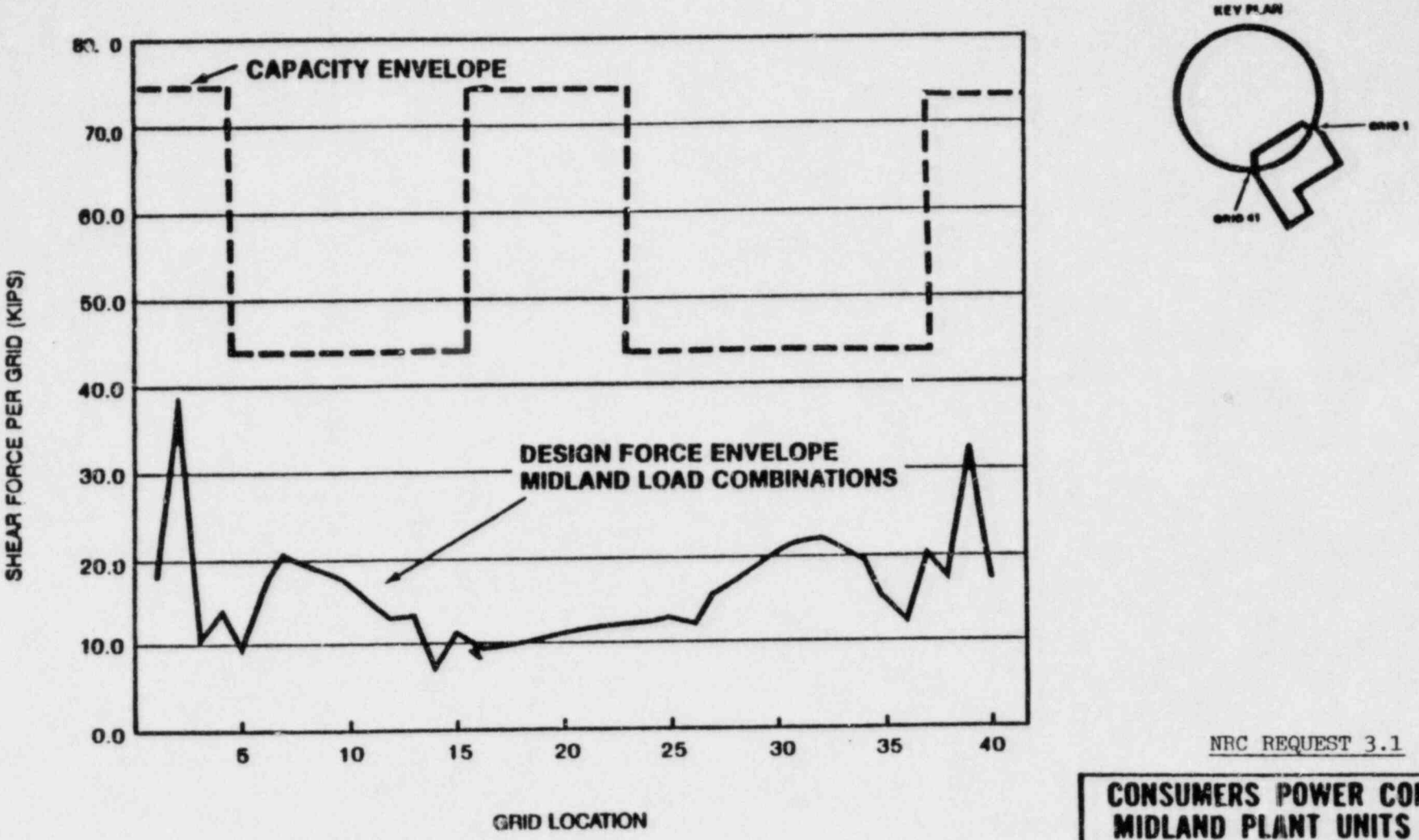
A. $U = 1.4D + 1.4T + 1.4F + 1.7L + 1.7H + 1.9E$

where

D = dead load
L = live load
F = hydrostatic pressure from groundwater
T = differential settlement
H = lateral earth pressure
E = operating basis earthquake

[2] Units are in kips and feet per linear foot of footing.



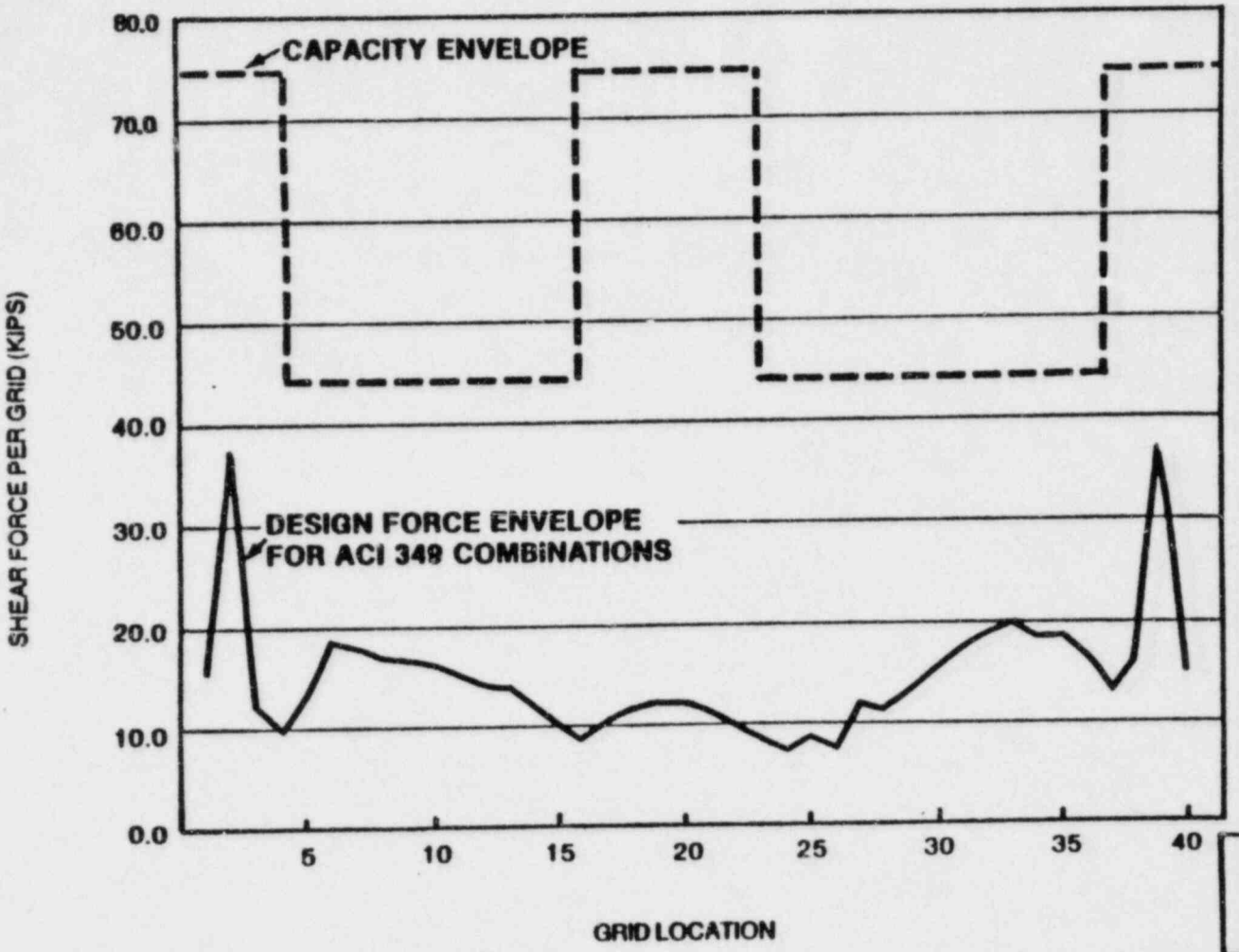


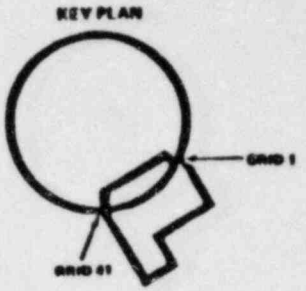
NRC REQUEST 3.1

CONSUMERS POWER COMPANY
MIDLAND PLANT UNITS 1 & 2

BWST FOUNDATION
MAXIMUM DESIGN LOADS AND CAPACITIES OF INTERFACE SHEAR CONNECTORS (MIDLAND CRITERIA)

FIGURE 20





NRC REQUEST 3.1

CONSUMERS POWER COMPANY
MIDLAND PLANT UNITS 1 & 2

BORATED WATER STORAGE TANK MAXIMUM DESIGN LOADS AND CAPACITIES OF INTERFACE SHEAR CONNECTORS (ACI 349 CRITERIA)

FIGURE 21

REQUEST 3.2

Acceptability of 1.5 FSAR SEE versus SSRS as bounding design.

RESPONSE

See response to Question 1.8 contained in this document.

REQUEST 3.3

Settlement monitoring program to be required during plant operation with action levels and remedial measures identified (Tech Spec).

RESPONSE

See response to Question 1.12 contained in this document.

In addition to the above, the response to Confirmatory Issue 2 in our April 22, 1982 Serial 16656 provided details on strain monitoring and acceptance criteria. The strain provides a measure of the affects of settlement on the ring foundation.

REQUEST 3.4

As-built report with confirmatory data in FSAR on completed construction.

RESPONSE

See responses to Question 1.6 contained in this document.

INFORMATIONAL REQUEST 4

Provide the following information regarding underground pipes:

REQUEST 4.1

Basis for modeling of the piping inside the building in the terminal end analyses.

RESPONSE

The piping is modeled inside the building to a point which is considered a terminal end or anchor. The anchor point is defined by the pipe analyst as a point where the motion of the piping is completely fixed in all directions.

REQUEST 4.2

Controls to be required during plant operation to prevent placement of heavy loads over buried piping and conduits.

RESPONSE

We have performed an analysis which envelopes any anticipated construction or operational load during the life of the plant. It indicates that at the buried depths of the safety grade utilities overburden due to heavy loads will not affect the pipe. The stresses calculated from the enveloping load are still below yield point of the piping. This information was provided in our December 15, 1981 submittal and discussed in detail during our NRC staff meetings held in January and February.

To prevent soil settlement that could be detrimental to the buried piping and conduits because of heavy laydown loads or other heavy loads, we will designate exclusion zones in the yard areas where buried safety grade utilities exist. The exclusion zones will be designated on the yard piping drawings along with maximum allowable loads and laydown times for these exclusion areas, which will be incorporated in the technical specifications. The control procedure will be handled in conjunction with the procedures for controlling heavy loads inside the plant according to NUREG 0612.

REQUEST 4.3

As-built report with confirmatory data in FSAR on completed construction.

RESPONSE

We have agreed at the April 16, 1982 meeting with the staff and in the April 15, 1982 letter, Serial 16638, to provide this as-built and confirmatory data to the NRC staff. This information will be supplied separately within 6 months of completion of construction and referenced in the FSAR.

REQUEST 4.4

Justification why the BWST lines are not to be rebedded from the tank farm dike to the auxiliary building.

RESPONSE

The measured profile data taken in 1979 indicates the maximum deflections measured to be within the construction tolerances for the installation of the pipe, 2 inches. Line 18-2HCB-1 from BWST tank 2T-60 had a maximum measured deflection of 1.92 inches and line 18-1HCB-2 from BWST tank 1T-60 had a maximum measured deflection of 0.96 inches. Lines 18-2HCB-2 and 18-1HCB-1 leading from BWST tanks 2T-60 and 1T-60 respectively were not profiled because they were in the same pipe trench as those lines which were profiled. These lines should have similar elevation profiles because all the other 1981 profile data on buried pipes in same construction trench have similar profiles.

Lines 18-2HCB-1 and 18-2HCB-2 from BWST 2T-60 have approximately 47 feet of pipe not rebedded and lines 18-1HCB-2 and 18-1HCB-2 from BWST 1T-60 have approximately 20 feet of pipe not rebedded. The original design analysis of this pipe is still valid because it envelopes the construction tolerances for installation. The highest calculated stress for these lines in a faulted condition is 1477 psi with an allowable of 45024 psi.

The soils supporting the pipelines are either granular backfill or well compacted clay. The soils tests performed in the area of the BWST dike and the auxiliary building do not indicate soft clay layers that would give long term consolidation beneath these lines. The borings used to evaluate the

soils are: T-9, T-10, SWL-8 and SWL-8A. These borings are referenced in the FSAR Section 2.5.

REQUEST 4.5

A list of all penetrations for underground seismic Category I piping. Revise and submit your pipe monitoring program to include periodic measurements of rattlespace for plant operating life. Provide justification for all exceptions.

RESPONSE

The penetrations for all the Seismic Category I piping to be monitored are shown on Drawing SK-C-745, Figure 7, in our March 16, 1982 submittal Serial 16269. The Category I classification on Line 48-OHBC-2 has been changed to its functional separation at the butterfly valve inside the building.

We are committing in this response to monitor the penetration rattlespace for all the seismic Category I penetrations with piping which has not been rebedded. The penetrations to be monitered at the auxiliary building are associated with the following piping: 18-1HCB-1, 18-1HCB-2, 18-2HCB-1, 18-2HCB-2, 26-0HBC-19, 26-OHBC-20, 26-OHBC-15, 26-OHBC-16. At the Diesel Generator Building the following penetrations will be monitored: 8-1HBC-311, 8-1HBC-310, 8-2HBC-81, 8-HBC-82. The monitoring frequency for the penetrations will be yearly for the first five years of plant operations. Technical specifications for the penetrations will be amended to FSAR Chapter 16 with the other comitted technical specifications concerning pipe monitoring on the Midland Site.

REQUEST 4.7 (sic 4.6)

Justification for the high (beyond limits) reported settlement stresses.

RESPONSE

The corrected Enclosure (2) submitted in our April 15, 1982 letter, Serial 16638, identifies by footnote the high stresses which are fictitious due to end condition affects on the piping model. This enclosure does not have any stress allowable limit associated with it due to the unconventional load combination requested.

INFORMATIONAL REQUEST 5

Provide the following information regarding the Diesel Generator Building:

REQUEST 5.1

A structural reanalysis considering:

(a) Presurcharge conditions

(b) Conditions during the surcharge

(c) 40-year settlement effects

(d) The combined effects of (a) through (c) above

RESPONSE

Our response to this request was contained in an enclosure to Serial 17228 dated June 1, 1982.

REQUEST 5.2

A structual reanalysis assuming reduction in soil spring stiffnesses between bays 3 and 4 on the south side and beneath adjacent cross wall.

RESPONSE

Our response to this request was contained in an enclosure to Serial 17228 dated June 1, 1982.

REQUEST 5.3

A statistical evaluation of settlements to evaluate impact of survey inaccuracies versus actual differnetial settlements which have been experienced.

RESPONSE

Our response to this request was contained in an enclosure to Serial 17228 dated June 1, 1982.

REQUEST 5.4

Acceptability of 1.5 X SSE (FSAR) versus SSRS for bounding design.

RESPONSE

The design basis of the Diesel Generator Building is the FSAR SSE. An evaluation of this building for the SSRS loading will be performed in the seismic margin review which is presently being performed. The results of this margin review will be provided along with the results of the other plant structures, equipments and components when completed.

REQUEST 5.5

Criteria relating crack width and spacing to reinforcing steel stress.

RESPONSE

See response to Question 1.2 contained in this document. The Diesel Generator Building has been evaluated for all existing cracks, and found to be acceptable to carry all the applicable loads. The results of this evaluation have been submitted as indicated in response to Question 1.2. Since no remedial work is planned for the Diesel Generator Building, no criteria for crack width and spacing is required.

REQUEST 5.6

Settlement monitoring program to be required during plant operation with action levels and remedial measures identified (Tech Spec).

RESPONSE

See response to Question 1.12 contained in this document.

REQUEST 5.7

Evaluation of effect of past and future differential settlements to diesel lines from the day tank to the diesels.

RESPONSE

The stress effect due to settlement on the piping connecting the diesel fuel oil day tanks with the diesels is negligible for several reasons. The piping was installed (connected) after the surcharge period and therefore, the piping has no induced stress due to past differential settlement between the diesel pedestal and building. The pipe sizes connecting the tank and diesel are all two inches or less in diameter and very flexible in nature. The future predicted differential settlement between the day tank and diesel pedestals is conservatively estimated to be less than 3/4 of an inch. The resulting stress will be less than the 18 ksi calculated for a 3-inch future settlement calculation on buried fuel oil lines submitted in our December 15, 1981 submittal which is within the allowable 45 ksi for the piping.

INFORMATIONAL REQUEST 6

Provide a settlement monitoring program to be required during plant operation with action levels and remedial measures identified (tech spec) for the underground diesel fuel oil storage tanks.

RESPONSE

The settlements for these tanks will be monitored and evaluated during operation as committed in Sections 2.5.4.13.2(c) and (d) of the Midland FSAR and will be included in the technical specifications as stated in response to Item 1.12.

We have showed that the diesel fuel oil storage tanks are stable and that both the past and future settlements are insignificant (0.2" and 1.25", respectively). This information was submitted in our prepared hearing testimony and the staff agreed with our conclusion in their prepared hearing testimony. Our May 31, 1982 submittal, Serial 16881, has an Enclosure 2 which addresses the liquefaction potential of the soil under the diesel fuel tanks and concludes that there is adequate resistance to tank floatation if soil liquefaction occurred during a seismic event.

INFORMATIONAL REQUEST 7

Provide the following information regarding the permanent dewatering system:

REQUEST 7.1

Results of the dewatering recharge test.

RESPONSE

Our response to this request was contained in an enclosure to Serial 17304 dated June 7, 1982. Refer to the report on the permanent dewatering system recharge time verification test which is updated as follows:

Introduction

As a result of the site-wide exploration program, zones of potentially lifquefiable saturated granular backfill materials were discovered supporting some Seimic Category I structures and buried utilities. Remedial measures, which also eliminate the potential for liquefaction, are planned for all but two locations. At the Auxiliary Building Railroad Bay and Diesel Generator Building areas there will continue to be a potential for lifquefaction, during the SSE, in saturated backfill sands existing above el 610'. To eliminate this liquefaction potential, a permanent plant dewatering system was designed to prevent ground water levels below el 610' for these two areas. During operation it is planned to maintain the groundwater level at about elevation 595'.

To determine the reliability of the permanent dewatering system, analysis of data from pumping tests and groundwater level responses to changes in cooling pond levels was performed to evaluate the of groundwater responses indicated

that there would be sufficient time for maintenance, repair or replacement of the system before groundwater levels reach el 610' at the two critical areas. To satisfy the NRC staff about the validity of the mathematical model, a full scale recharge test was performed to determine the actual recharge time at the critical areas.

Scope

The full scale test was performed between November 20 and April 2, 1982. The test consisted of two phases: drawdown and recharge.

Drawdown Phase

The drawdown phase of the test commenced November 20 and involved pumping from the 20 permanent backup dewatering wells, selected individual observation wells equipped with self-contained eductors, existing construction dewatering wells, and temporary dewatering wells (Figure 2). The ground water levels around the site were lowered to el 595' or as low as practical, with the cooling pond at el 627'. Groundwater level readings were taken twice a week to monitor drawdown rates. The water level readings at the conclusion of the drawdown phase of the test were taken under an approved quality assurance program. Figure 3 shows groundwater levels at the conclusion of the drawdown phase.

Recharge phase

The recharge phase of the test was initiated on February 4, 1982. All pumping at the site was discontinued on this date. Ground water levels around the site were measured twice a week. All measurements were performed under an approved quality assurance program. Locations and hydrographs of observation

wells at the two areas are shown on Figures 4 and 5, respectively. The recharge phase of the test was conducted for a period of 60 days. The response of observation wells in the Diesel Generator Building area are representative of the recharge rate from the cooling pond in the event of a complete well shutdown.

In the Auxiliary Building Railroad Bay area a high pressure construction water line was broken between March 11 and March 17, 1982 which resulted in flooding of the railroad bay floor including observation well AX-2. Therefore, the water level indicated in AX-2 on March 15, 1982 does not represent a saturated water level within the backfill. As con be seen on Figure 5, the water level began dropping prior to the water line being shutoff. Observed water level readings for observation wells AX-13A, CA-9A and T-21A also may have been influenced by the broken water line. Nevertheless, there is still considerably more than 60 days recharge time available at the Auxiliary Building Railroad Bay areas, even after complete well shutdown.

Conclusions

Evaluation of the data from the full scale recharge test indicates the following:

- A permanent dewatering system can lower ground water levels to approximately el 595.0' at the two critical areas.
- A minimum of 60 days is available for maintenance, repair, or replacement of the system before ground water levles at the two critical areas exceed el 610' prior to the SSE.

REQUEST 7.2

Technical specification requirements on the permanent dewatering system.

RESPONSE

Our response to this request was contained in an enclosure to Serial 16629 dated April 19, 1982. Section 8.0 technical specifications of that submittal is updated as follows:

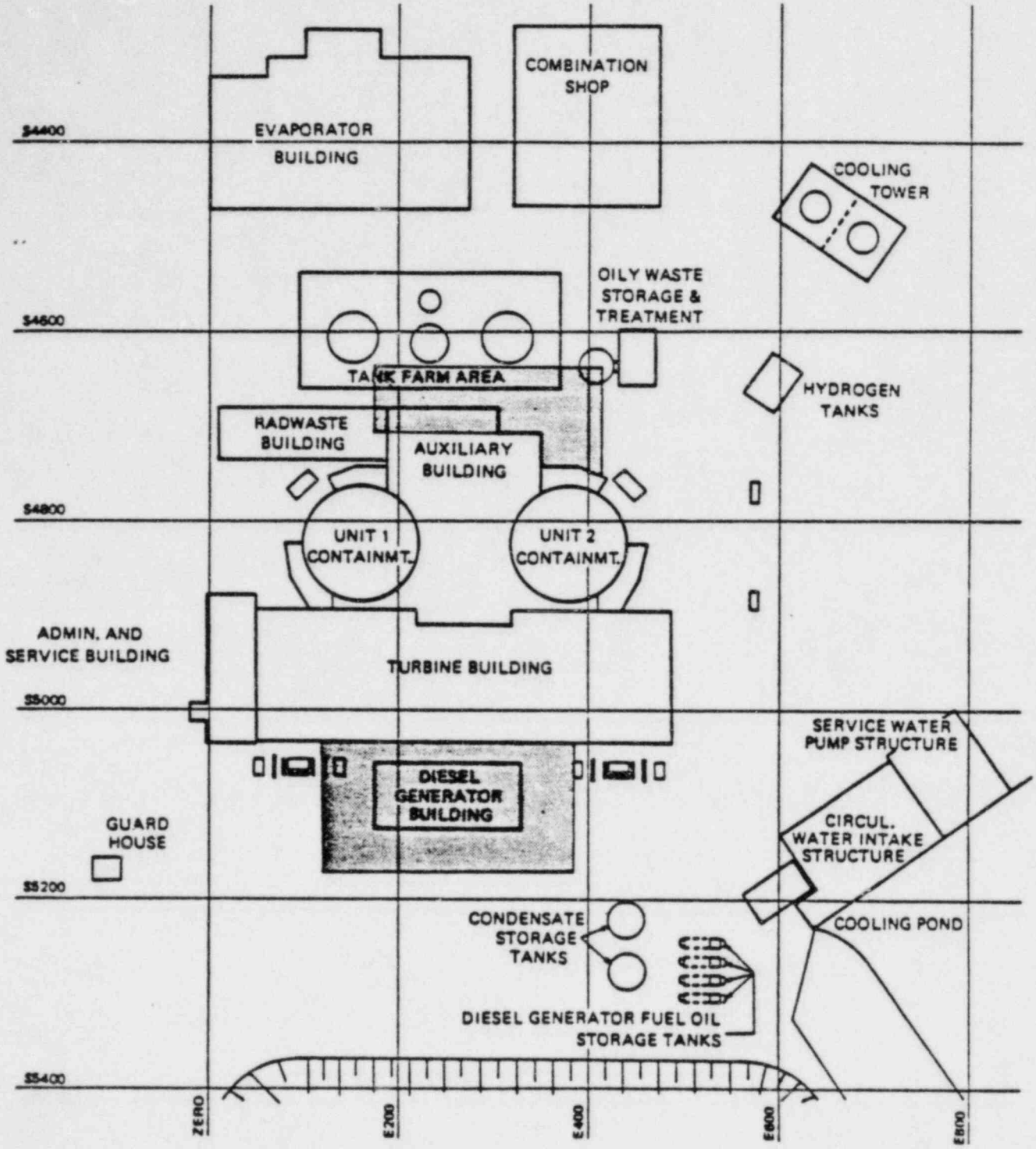
After the plant operator has verified that a water level measurement higher than El 595' is a correct reading and the repair measures given in Table V-1 do not affect the rise in groundwater level at the DGB or auxiliary building railroad bay areas, the plant will be shut down when any observation well at either critical area exceeds el 607' (see Figure V-1). A technical specification will be prepared detailing the coordination of the shutdown.

NRC REQUEST 7.2

TABLE V-1

WELL FAILURE MECHANISMS AND RESPONSES

Event	50.54(f) Reference	Repair Time
1. Electrical Failure		
a. Single well (wired in parallel)	24.a, 24.c, 47.1.b	Less than 1 day.
b. Multiple wells due to power outage	24.a, 24.c, 47.1.b	1 day to initiate operation of backup diesel power to interceptor wells. Operate until normal power can be restored. Backup interceptor wells automatically begin pumping if water levels exceed el 595'.
2. Failure of timers/ pumps/check valves	24.c, 47.1.b, 47.6	Less than 1 day; replacement parts onsite.
3. Header pipe break	24.c	1 day to attach flexible hose to each well affected and pump water to storm drains. In case of interceptor well header failure, initiate backup wells (on separate header system).
4. Well screen encrustation	24.h, 47.6, 47.8	2 days to acidize well.
5. Complete loss of well	24.c, 47.1.b	4 days to replace one well using cable tool rig. 1 day if other drilling method used. If well or wells need to be replaced, there is enough redundancy and pumping capacity to prevent water levels from rising in plant fill, while the replacement wells are being installed.



EXPLANATION

AREAS COMMITTED TO PERMANENT DEWATERING

0 50 100 150 200

SCALE IN FEET

CONSUMERS POWER COMPANY
MIDLAND UNITS 1 AND 2

AREAS COMMITTED TO PERMANENT DEWATERING

FIGURE V-1

G-1988-22

REQUEST 7.3

A summary dicussion of your contingency plans which would be implemented in the event ground water levels at critical locations exceed limits in the technical specifications.

RESPONSE

The critical groundwater level to preclude liquefaction in the area of the Diesel Generator Building and Auxiliary Building Railroad Bay areas has been conservatively established at el 610'. It also nust be noted that liquefaction can only occur during a seismic event.

Our contingency plans are being developed such that the plant would be in safe shutdown prior to the groundwater level reaching el 610' in critical areas and that appropriate measures would be taken to ensure that the groundwater level is maintained at or below 610' as required after safe shutdown. Steps that would be taken as the groundwater level rise is identified in critical areas is summarized as follows:

1. The permanent observation well, piezometer, or monitoring well indicating a groundwater level higher than el 595' will immediately be remeasured to verify that operator error or equipment malfunction has not occurred.

2. The permanent observation wells, piezometer, or monitoring well in the vicinity of the high reading will be manually measured.

3. If a rise in groungwater levels is verified, regardless of the cause, location, and extent of groundwater level rise, the pumping rate of the dewatering system will be increased. This can be accomplished either by

increasing the pumping rate of the individual wells, initiating the backup interceptor wells and/or standby area wells, installing pumps in the six monitoring wells, or all of the above.

4. The nearest dewatering wells will be examined for a dewatering system malfunction (pump failure, power outage, header pipe leak or failure, high level switch or timer failure, etc). Flow rates will be checked. Appropiate repairs will be made.

5. An investigation will be conducted to determine if failure of any piping has occurred and the piping system closed as required.

6. Should any disruption occur in the electrical power supply, standby diesel generators will be available to supply power to the primary interceptor wells and backup well pumps on a temporary basis until the normal power supply is restored. The twenty primary interceptor wells are activated automatically and the backup wells can be activated manually.

7. The wells can be repaired or replaced to stabilize and/or reverse groundwater level rise. A complete set of replacement parts will be stored on site for any repair, replacement, or new installation which may be required.

8. As soon as a major pipe leak or other unsupected groundwater recharge is detected in either of the two critical areas, the following actions will be initiated:

   a. The recharge source will be identified and stopped or curtailed as soon as possible

b. Concurrently, an evaluation will be make to determine whether the area wells are sufficient to stabilize and maintain water levles below el 610'.

c. The rate of groundwater level rise will be projected based on area well operation only. A critical water level will be determined for which safe shut down would have to be initiated to have the plant in cool shutdown prior to the water level reaching el 610'.

d. Additional pumping capacity that might be required to stabilize and maintain groundwater levels below el 610' will be determined and steps taken for necessary emergency installation and operation.

e. Safe shutdown will be initiated when the water level reaches the critical level determined in step c, regardless of status of new well installation.

9. In the event of a complete well systems failure and recharge occuring from the cooling pond, safe shutdown will be initiated when the water level reaches el 607'. Steps 2 through 7 will be implemented as required to maintain the water level in critical areas below el 610', as long as required.

Connection to the backup wells, or installation of pumps in the permanent monitoring wells can be accomplished within a 24-hour period. The above measures are considered more than adequate to ensure that groundwater levels stay below el 610' near the critical areas. The administrative procedures for accomplishing these measures will be included in a technical specification.

INFORMATIONAL REQUEST 8

Provide a settlement monitoring program to be required for structures founded on natural soils and plant fill which have not been identified above with action levels and remedial measures identified. (Tech Spec)

RESPONSE

See response to Question 1.12 contained in this document.

NRC FORM [illegible]
(12-[illegible])

U.S. NUCLEAR REGULATORY COMMISSION

ACTION ITEM CONTROL FORM

A. INITIATING OFFICE

ASSIGNED TRACKING NUMBER					DE. DATE OF REPORT			DE DATE OF TRANSACTION		
D1. SENDING OFFICE	D2 SEQUENCE NUMBER	D3 PRIORITY	D4. A/I TYPE		MONTH	DAY	YEAR	MONTH	DAY	YEAR
F03	03148	3	W	CA	07	18	83			

D7. FACILITY	DE REQUESTED COMPLETION DATE			DE. REQUESTER
	MONTH	DAY	YEAR	
	07	21	83	KEPPLER

10. DESCRIPTION

EDO 13308 FROM OCA REQUEST EDIT JUNE 16 1983 HEARING REQ AT MIDLAND

E. ACTION OFFICE

D1 RECEIVING OFFICE	FD1	FD2	FD3	FD4	FD5	HD6	HD7	HD8	HD9	HD10	HD11	F
			X									

D2 PERSON ASSIGNED	ESTABLISHED COMPLETION DATE			
	MONTH	DAY	YEAR	
WARNICK	07	21	83	

TRANSFER INFORMATION

D5 TRANSFER ACTION	D6 TRANSFER CODE	D7 TRANSFER DATE		
		MONTH	DAY	YEAR

CLOSEOUT INFORMATION

D8 CLOSEOUT ACTION	D9 MAN-HOURS	D0 CLOSE-OUT CODE	11 CLOSEOUT DATE			12 REQUEST ACKNOWLEDG
			MONTH	DAY	YEAR	

J. Keppler, RIII
Pg 1 of 2

OCA: Kammerer

TO: Commissioner Gilinsky

ACTION CONTROL	DATES
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DESCRIPTION ☐ LETTER ☒ MEMO ☐ REPORT ☐ OTHER

Request edit transcript fm 6/16/83 hearing re Quality Assurance at the Midland Plant

SPECIAL INSTRUCTIONS OR REMARKS

Each Office reply direct to OCA

	DATE
...ler, RIII/ Eisenhut, NRR	7/12/83

NRC FORM 22

EXECUTIVE DIRECTOR FOR OPERATIONS
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 11, 1983

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MEMORANDUM FOR: Commissioner Gilinsky

FROM: Carlton Kammerer, Director
Office of Congressional Affairs

SUBJECT: TRANSCRIPT FOR EDITING: JUNE 16, 1983
QUALITY ASSURANCE AT THE MIDLAND PLANT

A transcript of the NRC testimony, before the House Subcommittee on Energy and the Environment of the Committee on Interior and Insular Affairs on June 16, 1983, is attached. We request your coments be edited and returned with all required inserts to OCA by close-of-business Thursday, July 21, 1983.

By copy of this memorandum EDO is asked to coordinate staff edits of this transcript and return to OCA by the above date.

CONTACT: F. Combs, x41443

Attachment: As stated

cc: Chairman Palladino
Commissioner Roberts
Commissioner Asselstine
EDO
SECY
OGC
ELD
IE
REGION III (Keppler)

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JUL 13 1983

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1927

1928 STATEMENTS OF HONORABLE VICTOR GILINSKY, COMMISSIONER,
1929 NUCLEAR REGULATORY COMMISSION; ACCOMPANIED BY JAMES KEPPLER,
1930 ADMINISTRATOR, REGION III; RONALD COOK, NRC MIDLAND
1931 INSPECTOR; ROSS LANDSMAN, NRC MIDLAND INSPECTOR; R. M. N.
1932 GARDNER, NRC MIDLAND INSPECTOR; AND DANIEL EISENHUT, OFFICE
1933 OF NUCLEAR REACTOR REGULATION

1934

1935 Mr. SEIBERLING. All right gentlemen, Mr. Gilinsky?
1936 Commissioner GILINSKY. Mr. Chairman, thank you for the
1937 opportunity to participate. I should say at the outset that
1938 I'm testifying in an individual capacity. The agency's
1939 testimony will be delivered by the head of our Region III
1940 office. Mr. Keppler.
1941 I visited the plant about a week ago in the company of
1942 many of the witnesses that appeared today. I visited
1943 inspectors, regional inspectors, various Intervenors,
1944 Chairman Selby of Consumer Power and members of his
1945 organization. I came away with a number of impressions and I
1946 would like to share some of them with you. After the
1947 previous testimony I don't think I need to recite the
1948 h story of this plant. I do want to say that in reviewing
1949 the troubled history of the plant I am distressed, as it is
1950 clear that you are, that our systems for assuring safety, by

the utilities and NRC's, turn up serious problems so late in the construction process and that the solutions are slow in coming.

There has got to be a better way of spotting problems earlier, in dealing with them more promptly.

I would like to say a few words about NRC's role, and about our process.

After the discovery of the soils problem that you have been hearing about, the NRC staff issued an order in 1979, which modified the construction permit and required the halting of construction in certain areas.

Unfortunately, the view of our lawyers in those days was that construction problems did not justify immediate enforcement action, and this meant the licensee could prevent the order from becoming effective and thus continue in construction by requesting a hearing. This the company did, the planned continued construction and it has been in hearing ever since. It is incidentally a useful reminder that it isn't just Intervenors that take advantage of hearings. I should mention that the NRC Staff's formal participation in the current hearing does not fall into the usual pattern which I criticized recently before this committee. Our staff cannot be accused of lining up with the utility. At the same time, I also think that the involvement of the staff in a formal adjudication greatly complicates

Commission staff communication on the important issues. I think this argues, then, for ending the NRC staff role as a formal party in such hearings.

In 1982 the Licensing Board took an unusually active step, adopted an unusually active role, and issued its own order which put the plant's construction under the step by step control of the NRC staff. The order was not taken up by the Commission.

It is unfortunate, to my mind, that the Commission itself has had so little to do with NRC's action in this trouble-plagued project. So far as I can tell, the Commission has never had a meeting on safety problems, or had never had a meeting on safety problems at Midland. Not in recent years, anyway. And until yesterday, the last meeting of any kind in Midland was in 1978, and that was on a personal dispute between the staff and Intervenor lawyers. Upon my return from Midland last week I recommended to the chairman, our chairman, that the Commission address itself to the safety problems at that site.

We had the first meeting on the subject yesterday. Mr. Keppler made a presentation. I thought it was a very helpful meeting. And it shows, by the way, that the prospect of a committee hearing is a very useful way of concentrating Commission attention.

Mr. SEIBERLING. Like an election for an elected officials.

Commissioner GILINSKY. My own feeling is that given the scale of the problems, enormous sums involved, sums which will ultimately be paid for by consumers--that's with a small C--the complex interaction of the project with the NRC through a Licensing Board and headquarters and regional staffs, it is essential that the Commission itself be confident that the agency is dealing properly with Midland. We need to be sure that the company is complying with our regulations and that we are assured such compliance in a sensible manner. That is all I have to say at the moment except to introduce Mr. Keppler our administrator.

I have one other point. I have prepared a large foldout describing the procedural history of Midland. I haven't quite got it ready for distribution, but I would like to submit it for the record. I think it is instructive.

Mr. SEIBERLING. Without objection, we will include that.

[The complete statement follows.]

Commissioner GILINSKY. Thank you, Mr. Chairman.

Mr. SEIBERLING. Mr. Keppler?

Mr. KEPPLER. Good morning, Mr. Chairman. My name is James Keppler and I'm the regional administrator of the NRC Region III Chicago office. With me today I have Mr. Ronald Cook, Mr. Ross Landsman, and Mr. Ron Gardner, three of my inspectors who have been very heavily involved in the Midland work. They are here at the request of the committee.

I'll summarize my testimony if that's all right with you, recognizing

Mr. SEIBERLING. Without objection, your entire testimony will be included.

Mr. KEPPLER. Thank you.

I think I'd start out by emphasizing that Midland has experienced repeated problems since the start of construction in 1972. The NRC and the licensee have taken actions to address these QA problems as they occur, and I might contrast that to, when I sat before this committee last summer, in the Zimmer case, where, really, the NRC staff did not recognize the full significance of the QA problems as they unfolded.

The NRC staff has been aware of the Midland problems and has been attempting to deal with them as they were identified.

In 1981 I provided testimony to the NRC's Atomic Safety

and Licensing Board, presiding over the hearing on remedial soils issues at Midland plant.

I testified at that time on the more significant QA problems that had been experienced in connection with Midland and the corrective actions taken by Consumers Power Company and its contractors.

I stated that while many significant quality assurance deficiencies had been identified, it was the NRC Staff's conclusion that the problems experienced were not indicative of a breakdown in the implementation of the overall quality assurance program.

I also noted that while deficiencies had occurred which should have been identified earlier, Consumers Power Company's QA program had been generally effective in the ultimate identification and subsequent correction of these deficiencies. Furthermore, at that hearing I discussed the results of a special QA inspection that I had conducted in May, 1981. A team of nine of my best inspectors that I sent up to the site, which I had initiated to determine whether modifications made to Consumers' QA program in 1980 were effective.

The results reflected favorably on the Midland plant quality assurance department formed in August 1980 to improve QA performance. The thrust of my testimony at that time was that I had confidence in the Consumers Power

Company's QA program both for the remedial soils work and the remainder of the construction. Now, in April, 1982, I was made aware that additional significant quality assurance problems were being encountered. This concerned me in view of my 1981 testimony to the Atomic Safety and Licensing Board.

As a result, I notified the Atomic Safety and Licensing Board that my previous testimony would have to be modified; directed staff evaluation to assess the cause and correction of the problems; and I created a special section within the Region III office, solely to handle the Midland project and reviewing the facility's status and history. Meetings were held with Consumers Power Company to discuss the NRC's concerns, and to inform them that additional measures were required to assure the quality of the plant.

In addition, the Midland section recommended and then conducted the comprehensive inspection of systems and components with the diesel generator building, which ultimately led to the major ''stop work'' action in December, 1982.

The--where we stand today, Mr. Chairman, is that Consumers Power Company has proposed a number of changes which the staff is reviewing, that will consist of a backwards look at the completed construction to date; will consist of a program to complete the plant and complete any necessary

rework that may be done--all of this overviewed by a third-party organization in addition to the NRC.

We believe these programs, when we complete our review of them and approval of them--we hope that these will provide confidence that the project will be completed satisfactorily.

In any event, we want to assure this committee that the NRC will not issue a license for this facility until we are satisfied the construction has been completed properly.

With that, Mr. Chairman, we are prepared to answer any questions you may have.

Mr. SEIBERLING. All right. There are no prepared statements of the inspectors? All right. Thank you very much.

Mr. Keppler, can you tell me, or maybe Mr. Gilinsky or someone can, what assurances NRC required as to site suitability prior to approval of the site? Was the site originally approved by NRC? In 1969?

Commissioner GILINSKY. It would have to have been approved as part of the construction permit proceeding. I guess you'd have to supply for the record exactly what was done at that time.

Mr. SEIBERLING. Mr. Keppler, can you answer that?

Mr. KEPPLER. I can't answer anything to that, Mr. Seiberling.

Mr. SEIBERLING. If a new plant were being submitted for approval today, before any work had been done, what would NRC require in terms of such things as soil borings, foundation plans, and so forth? How deeply do they go into that sort of thing? How deeply would you?

Mr. KEPPLER. Mr. Eisenhut, our Office of Nuclear Reactor Regulation might be able to provide that answer.

Mr. SEIBERLING. All right.

Mr. EISENHUT. Let me try to help you somewhat. When we go through the licensing process, early in the process one of the first considerations to look at is the site. You look at it from a number of considerations.

You look at it from its basic soil characteristics; you look at it from the location of nearby facilities. One of the keys you look at is population.

The only area that I'm aware of that, today, if you relooked at the Midland site, that would be a much closer call than it was at the time, would be the population issue.

We have not gone back and relooked at the population density criteria that we use today, to see whether the site would in fact have passed that test. But I do know in the time frame of the late '60s and early '70s, we didn't have such criteria. It was done in a much different framework where we didn't have a specific criteria per square mile where we looked at number of people.

The one step we have taken recently on high population density sites, as we have called them, the higher population density sites of plants that are presently under construction, for example the Seabrook site, we have in fact required a probabilistic risk assessment to be done by the utility.

We are doing that in recognition of the fact that these sites have grown to the point where the surrounding population is higher than we previously thought. It does not at this time, I believe, include the Midland site. It is somewhat below that--did not trip our threshold of asking--requiring a PRA, although one is being done for the Midland site.

So it is certainly not in the league of the Indian Points, the Zions, the Limericks or the Seabrooks, which are in fact the sites on the very high end of the population density scale.

Mr. SEIBERLING. If you knew in 1969 what you know now about soil conditions, would you have doubts about whether this was a suitable site?

Mr. EISENHUT. From the basic framework, as far as a suitable site, I don't believe we would have the doubt.

You see, you've got to remember that the basic underlying glacial till is a satisfactory soil. The problem that came about in connection with the Midland project was that on

certain pieces of the structure they had to put in compacted soil. That is a perfectly acceptable process. However, the implementation of that is what broke down at the Midland site.

That is, there is a satisfactory engineering solution from a design standpoint. But it was inadequately carried out at the site.

Mr. SEIBERLING. Thank you.

All right. I don't know that I have time to go into all of the questions raised by the testimony of the Intervenors. However, they have certainly raised some very major questions. And the siting is one of them, of course. But let me just go through a couple of them here and then I'll yield to my colleagues and maybe we can get back to it after they have their time.

Mrs. Sinclair, on page 1 of her testimony, says that: ''Subsequent inspection reports after construction was resumed in April 1973 showed that these promises were ignored by Consumers Power Company--'' those are promises about the quality control, apparently. And, she says, ''Region III did not act on these reports of violations, but the attorney for the citizen intervenors, Myron Cherry, read the inspection reports and brought them to the attention of the Appeals Board, pointing out that Consumers Power Company did not honor its promises for improved quality control.''

Then she quoted from the Appeals Board, after the hearing in November--in the report, or letter, rather, that they wrote in November of 1973 to Mr. Muntzing, who was then director of licensing. Here's what they said:

''What we have here is a pattern of repeated, flagrant and significant quality assurance violations of a non-routine character, coupled with an unredeemed promise of reformation.'' Then says, ''the staff subsequently issued an order to suspend construction until Consumers Power Company could demonstrate why their license shouldn't be suspended. In a short time the order to halt construction was lifted because of political pressure. After an uncontested hearing, approval of the license was renewed.''

Mr. Keppler, can you comment on this?

Mr. KEPPLER. In late 1973 there was a problem that was identified by the NRC involving cad welding operations at the site. This is the splicing of reenforcement steel in the concrete. We found that the cad welding work was really not being controlled properly and some of the cad welds were not being completed properly.

As a result of that action the NRC, at that time the AEC, required the utility to stop work in that area, and subsequently the Atomic Safety and Licensing Appeals Board did write a letter to the director of regulation at that time, urging that a formal stop-work be issued in the form

of an order. And an order was issued that required immediate stopping of the cad welding operation, which had already been stopped, but it also required a show cause--the licensee to show cause, why all construction activities should not be stopped, a matter that was dealt with in a formal hearing in the summer of 1974.

The cad welding operations were permitted by the NRC to resume after the NRC was satisfied that the procedures for controlling the work and the quality assurance activities were proper. There was no pressure on the NRC staff to permit the resumption of operations that I'm aware of. And I certainly felt no pressure in releasing that work.

Mr. SEIBERLING. Apparently, going to the soil problem, someone wrote a memorandum in 1980 of a conversation with you. This is a memorandum that was apparently attached to a--summary was attached to a memorandum from Thomas Gibbon to Samuel Choate with a copy to you, subject, possible ex parte contact in the Midland proceedings.

It's a conversation and here is the summary of one of your statements. ''Midland is continuing to work today to make resolution of the settlement problem much more difficult. Keppler said the staff had not yet made up their minds on whether the fix proposed by Midland was acceptable; therefore, the project continues to be built and the problem gets worse. He wanted the work stopped until the problem is

solved.'' Is that a correct summary, according to your best recollection?

Mr. KEPPLER. Yes, it is. Could I give you a little background on that?

Mr. SEIBERLING. Yes.

Mr. KEPPLER. Mr. Gibbon was the technical assistant to Commissioner Bradford, when he was with the agency. And he made a visit to our regional office, and during the course of that visit we talked about a number of matters in which they were soliciting input from the field as to what matters the Commission might be able to focus attention on. One of the issues that was discussed was the question of problems occurring in construction and whether or not work should stop--there should ever be a stop-work issued by the NRC.

The view that I was expressing at that time was when you have a problem and you don't know what the fix is going to be, that I questioned the merits of letting that project proceed, recognizing that it is being done at the utility's own risk. I questioned the merits of letting that type of activity proceed until it was determined that a technical fix was achieveable. And so I raised that question as really a philosophy question with Mr. Gibbon, to bring back to Commissioner Bradford.

Commissioner GILINSKY. If I may interject a comment, Mr. Seiberling?

Mr. SEIBERLING. Yes.

Commissioner GILINSKY. I think over the years, until really recently there was a feeling, which I mentioned in the testimony, particularly in our lawyers, that construction problems did not constitute immediate health and safety problems and therefore did not justify immediate enforcement action. And the agency was--did not easily step in and stop projects, even when there were problems that were fairly serious.

I think--well, for example, there were also very seldom--I think perhaps for many years--no civil penalties in the construction area. That has changed to some extent and I think--

Mr. SEIBERLING. Well, I think that's a very important observation.

Mr. KEPPLER. Could I add one other point?

Mr. SEIBERLING. Yes.

Mr. KEPPLER. I make the point, I think the only times we exercised our authority to stop work in a formalized way was when the continuation of construction might cover up work, so that you couldn't then inspect the completed work. Like, perhaps during pouring of concrete.

Mr. SEIBERLING. What was the result of your recommendation? Was the work stopped or was it not?

Mr. KEPPLER. No. But it wasn't a recommendation in that

sense. It was a--again, we were focusing on the philosophical argument about whether or not enforcement action should be taken in the formal way of stopping work during plants under construction. It was brought up in that context.

But when Mr. Gibbon realized that the matter could involve an ex parte violation, he felt it necessary to summarize that conversation, which was one small part of a much bigger conversation.

Commissioner GILINSKY. Also, Mr. Chairman, the view was if there were any problems the utility was proceeding at its own risk and then these would be dealt with at the operating license stage. I think we have since learned that you have to deal with these problems at an earlier stage.

Mr. SEIBERLING. That's another question I was going to get into. Is it still the policy of NRC to--

Commissioner GILINSKY. We have--

Mr. SEIBERLING. To allow the facility to proceed at their own risk?

Commissioner GILINSKY. In some sense they proceed at their own risk. But the fact of the matter is, in the real world when things get built, that weighs pretty heavily on the decisionmakers; and I think we have decided, and I think I can speak for all the Commission on this, one has to bow a great deal firmer in the construction phase.

Mr. KEPPLER. I might add, in the case of the Marble Hill

project in southern Indiana the NRC took formal actions to stop that project because of a deficient quality assurance program, as well as the concern that completed work might not be able to be inspected by continuing work; and that project was shut down for 16 months as a result of our action.

Mr. SEIBERLING. Mrs. Sinclair cited another example where, in July 1981, Joseph Kane, NRC's chief geotechnical engineer, in answering a question as to whether in retrospect removal and replacement of the diesel generator building would have been a better option, he said: Well, ''when you are considering it from the standpoint of safety alone, it is my opinion that the removal and replacement is a better solution. If you are considering the other facets, that is the cost and impact on schedule, these are facets that engineers must address, then it may not be the superior option.''

Of course, everything has to require a balancing, but apparently in this case the costs under consideration are deemed to be more important than the safety problem. Do you want to comment on that?

Mr. KEPPLER. Yes, I would. I think this committee should be aware that the staff evaluations--

Mr. SEIBERLING. All right. Go ahead.

Mr. KEPPLER. That the staff assessment of this project, of

this remedial soils effort, included quality assurance people, hydraulic engineers, mechanical engineers, geotechnical engineers, structural engineers within the staff; and included consultants from, Technology Engineering Center, U.S. Army Corps of Engineers, U.S. Naval Surface Weapons Center; Brookhaven National Laboratory; Science Applications Incorporated; Geotechnical Engineers Incorporated; Crimm and Samuels and Associates, Incorporated. There were a lot of people used by the agency in formulating the Staff's position, and I think it is a little bit unfair to assess that as an expedient type of decision.

Mr. SEIBERLING. In other words, you do review all of the agencies, and try to come to a decision in which safety is not slighted in any serious way? Is that what you are saying?

Mr. KEPPLER. I think the staff would say that safety was the foremost consideration. Mr. Eisenhut would like to make a comment.

Mr. EISENHUT. Mr. Kane is, in fact, one of our senior soils reviewers on the staff. I think I'd probably concur with him, that the best solution would be to remove the building and start over. We don't require the best solution. We require an acceptable solution and in this case there was an engineering solution that came up in the problem. Mr.

Kane was, in fact, a geotechnical engineer who was the principle geotechnical engineer who, in fact, did the final review and concurred in our overall position.

So I think what you have seen is, there is clearly a spectrum of views in this area. Any time you get a highly technical problem, you'll get--we went to the best resources we knew in the agency. Mr. Keppler mentioned some outside organizations: The Corps of Engineers, the Naval Surface Weapons Center--a number of organizations. But the end result was, in fact, that we think we came up with an acceptable conclusion to the problem. It is a solution that is certainly not the best. It is certainly not the cleanest.

As I said, the cleanest would be to remove the building and start over. But we feel it was a satisfactory solution to go forward. It carries the final conclusion of all of these people, including Mr. Kane.

Mr. SEIBERLING. Thank you, Mr. Lujan.

Mr. LUJAN. The final line is that the building is not less safe because of the method used than if you had razed it completely down and started all over again; do I gather that?

Commissioner GILINSKY. I think what Mr. Eisenhut said--it was acceptable, he said.

Mr. LUJAN. Is it any more dangerous because of the fact it was not torn down?

Mr. EISENHUT. No, we believe not. When I said acceptable, it passes the test, the acceptable level of safety test. I was just reminded of a comment that each of the various different specialists in the various different groups supported each of the different aspects. It covers quality assurance, geotechnical, hydraulic engineering, mechanical engineering, structural engineering, it covered a very thorough process and each of those different disciplines feel that there was an acceptable level of safety in the final product.

Mr. MOODY. Will the gentlemen yield?

Mr. LUJAN. Yes.

Mr. MOODY. If we could follow up on that, when you say acceptable, that is not the same thing as saying not at all less safe. You are talking about a threshold level. It still meets the threshold criteria, that high or above in terms of safety? Which isn't to say that, had you torn it down and started over it wouldn't be at still a higher level?

Mr. EISENHUT. That's right.

Mr. MOODY. It's a series of probabilities. Different things happen. And the probabilities of different things going wrong are not identical to a decimal point as they would be if you tore it down as a result and started later. I think the answer to the gentleman's question is less safe had you torn it down and started over.

Mr. EISENHUT. I'm not sure it is less safe. Because if this mission is adequately carried out, and put that big proviso on it, you may end up with the same end product. Because you have to remember what is being done. In effect in the limit, the worst case, call it the biggest facility modification of the worst case here, they are actually now going in and removing all of the soil that is in question. They are then putting a structure in place that should have been there in the first place.

Mr. MOODY. Should have?

Mr. EISENHUT. Should have, because of this. Either you should have compacted the soil adequately in the first place or put an adequate concrete foundation in. Now they are going back in the worst situation we are talking here and they are removing many, many, many cubic yards of soil and they are actually now putting a concrete structure in place, all the way down to the acceptable glacial till which we would have found in the first place. So it is not clear that one is less safe than the other.

It's a distinction you really can't make.

Mr. MOODY. The probabilities of an accident or something untoward happening are no greater now than they would have been had you started from the beginning and done it jusy the way you wanted it?

Mr. EISENHUT. I would say I certainly can't distinguish

between the two in terms of the probabilities.

Mr. SEIBERLING. The committee will recess for ten minutes and resume.

[Recess.]

Mr. SEIBERLING. Let's continue, gentlemen. Mr. Keppler, I understand that at some point you informed the Midland Licensing Board, ''We believe that we simply cannot rely on Consumers Power Company's quality assurance program by itself.'' You suggested it would be necessary to supplement it by third-party overview. Does this indicate that NRC does not have confidence that the licensee is capable of conducting a quality assurance program in conformance with the Commission's requirements?

Mr. KEPPLER. Let me answer this way. Over the years, as problems have been identified with Consumers Power Company's quality assurance program, changes had to be made to improve that program. And each time these changes were made, they appeared to be reasonable. But when it came to the actual implementation of these changes, the problems continued to occur.

They have made change as recently as this year. And, again, these type of changes look good. But my reaction is that because of the history of the problems at this site, that realistically I cannot take the position that we can be satisfied with Consumers Power Company's QA program by

itself. I think a period of sustained proven good performance has to be shown before I can do that. And so, this was the situation that, as I said in my testimony, in April 1982, I decided that we were going to have to have further verifications of this plant to have the needed confidence in it to conclude that it had been built properly. And we decided that a program was going to have to be done to look at past work, and I mean an extensive program, and a program that was going to have to be done to oversee Consumers' QA efforts for future ongoing work.

I'm not about to back off that position until I can see that confidence is warranted in Consumers' QA program.

Now, let me go back. I really evaded your question, and let me go back and tell you why I think this approach is reasonable.

I had problems with the Palisades plant over the years. And in 1981 I was prepared to shut that plant down for safety concerns. And the company came forth with a program of some rather stiff oversights of what was going on, and a program to improve its regulatory performance.

The company has demonstrated to my satisfaction that they have been able to lick that problem; and they took a plant which was the worst plant in my region at that time, and they improved the regulatory performance at that facility to a level that I am really comfortable with right now.

In the case of Midland, they have not been able to lick this problem and we are not certain why, actually. And so I felt that it was prudent to have this type of third-party overview on this plant until we can have some confidence that the company can implement the QA program properly. And I'm prepared to let this thing run this way, with third-party overview, to the completion of this project, if that's what it takes.

Mr. SEIBERLING. Well, has there been an independent third-party quality assurance program set up? Overview program?

Mr. KEPPLER. There is a program of overview for the soils work, which is proceeding at a very limited rate based upon a Board order by the Atomic Safety and Licensing--that's being done by Stone and Webster. And Stone and Webster has been proposed by the company to do the third-party overview for the balance of construction work and that is under review right now.

Mr. SEIBERLING. Do you--go ahead.

Mr. KEPPLER. We have not made a decision on that point yet.

Commissioner GILINSKY. If I may add a comment, Mr. Chairman?

Mr. SEIBERLING. Yes.

Commissioner GILINSKY. I agree with Mr. Keppler's remarks

about the Palisades project. I joined him one day at an enforcement meeting there.

The thing that disturbs me, it disturbed me at the time, was that while the company had responded--in fact I was impressed with the way they had, to our--to the actions we were taking, they had let the plant deteriorate very badly. Both in terms of the human complement and the plant itself. Particularly with regard to procedures. And it really took the most severe action, the threat of even severer action on the part of Mr. Keppler, to get them to turn around.

Now, they did respond and I think that's all to the good.

Mr. SEIBERLING. Well, the Intervenors press the view that, first of all, that they didn't have any confidence in Stone and Webster. And secondly, they felt it should be someone who was clearly independent and was representing the consumer point of view; and thirdly, that there should have been consumer participation in the selection of Stone and Webster, at least having a public hearing. Have you any comments on that?

Mr. KEPPLER. Well, let me say that, from our point of view, Stone and Webster is one of the major architect/engineering firms in this country. And we consider them to be competent technically to do the work.

The Intervenors have expressed concern that some of the projects that Stone and Webster have been on, have not been

handled too well from a quality assurance standpoint. And that's a valid comment. But that's true about most of the big firms.

There have been problems with Bechtel plants, as Midland 1. There have been good Bechtel plants. There have been good Stone and Webster plants. But as a company they certainly are more--are qualified to provide that kind of service.

Now, what we did in the case of our assessment of Stone and Webster, was we made sure that the individuals who were to be doing the work at Midland had had a good track record at other projects. We called and did reference collection on these people to satisfy ourselves that we really had the first team in there.

As far as the independence concern goes, what we try to do is to make certain that both the company and the individuals involved are free from any significant financial types of responsibility with the licensee. And Stone and Webster had done really only a very small amount of work with Consumers Power Company. And we were satisfied that they were not deriving a significant amount of their income from Consumers Power Company.

So we felt the independence concern from a company standpoint was adequate, and what we did was to require the individuals, as well, to provide sworn statements that they were not involved in any way with Consumers Power Company.

Mr. SEIBERLING. Does it comply with the guidelines set up for the Diablo Canyon?

Mr. KEPPLER. I think it does. That's my view.

Mr. SEIBERLING. Thank you.

Mr. KEPPLER. Let me add one other comment. You made the point about citizen participation. I feel we have, and I guess it comes down to a question of how much. We had--all of the information by the utilities have been provided to the citizens. We had a public meeting up in Midland in February of this year--an all-day--and a meeting into the evening, to discuss the programs that were going to be put in place, being proposed by Consumers Power Company.

We had written input from the--from members of the public and the Intervenors, and a meeting was even held back in Washington at which the Intervenors were allowed to attend, where further discussion were going on.

I feel we have tried to be responsible in this way. And we intend to hold further meetings up at--in the vicinity of the plant during the course of the ongoing work.

Mr. SEIBERLING. Their point was they thought there should be citizen participation in the selection of the third-party oversight.

Mr. KEPPLER. You know, you get down to the point--and I'm going to say it this way--there's a question of: Somebody ultimately has to make a decision. There can't be a

handholding, shared decisionmaking process in this business.

Mr. SEIBERLING. I see. I agree. It's a question of how far you should get the public into the operation.

Mr. KEPPLER. I think we are genuinely trying to make sure we are aware of public concerns and I think we made several modifications to the programs as a result of these concerns.

Mr. SEIBERLING. Well, I guess it's a question of judgment. They feel there should be more.

Mr. Moody?

Mr. MOODY. I have two questions. First, Mr. Keppler, you referred earlier to $120,000 civil penalty that the NRC proposed against Midland. What were the reasons for that?

Mr. KEPPLER. The reasons were for two major violations that occurred in connection with an inspection of the diesel generator building, that we conducted.

One was for multiple items of noncompliance with the quality assurance program. And one was for the procedures of handling--identifying problems, where they weren't recording all of these problems. We felt that that was defeating the purpose of trending problem areas in the plant.

Mr. MOODY. You consider these serious violations?

Mr. KEPPLER. Absolutely. I wouldn't have issued the fine if I didn't consider they were serious.

Mr. MOODY. Any similar situations or occurrences take place?

Mr. KEPPLER. I'm sorry?

Mr. MOODY. Has anything else of that nature taken place? Subsequent to those fines? Are you satisfied with their performance subsequent to this?

Mr. KEPPLER. You do realize that the majority of the job is stopped right now. The soils work that is going on is a very piecemeal effort that we are authorizing. And I would have to say that, if you ask, are we satisfied? I would have to say not totally. We are still encountering some problems. The inspectors still feel that that the attention to detail is not there yet. We are just going to have to be very--to dog this thing in a very painstaking manner to make sure that we get the kind of attention to detail that we want. We are not about to turn this thing loose until we are satisfied that the work will proceed properly.

Mr. MOODY. I have a second question--

Mr. SEIBERLING. We have about one minute before the vote.

Mr. MOODY. We have probably a minute or hardly any more and then we have to go. I would like to follow my question earlier to Mr. Eisenhut. You said there was no loss of security--of safety. What buildings were you referring to, sir?

Mr. EISENHUT. Principally the example I used was the auxiliary building portion, that I mentioned, where they are putting a foundation completely down to the glacial till

underneath. Where I said, in the limit--that is certainly the limiting case in terms of the repair.

It varies somewhat when you go to other facilities. It could be argued when you look at some facilities that perhaps might have cracking in those facilities, one could argue that even though it is acceptable, once you go down to the lower probability numbers, there clearly is a degradation in terms of the difference in numbers.

Mr. MOODY. What would you say about the diesel generating housing structure?

Mr. EISENHUT. Certainly it still meets the threshold of acceptability. But certainly any facility that had--it depends on the degree of crack. If you had extensive cracking such as there is cracking in the diesel building, certainly the probability of a failure of the building would be higher than a brand new building, completely rebuilt.

Mr. MOODY. So your statement to the committee could not be made with respect to the diesel building?

Mr. EISENHUT. It is a degradation. Certainly as I used the limiting case example before it certainly would be, but it would vary as you go to the diesel building and then the other buildings would be in between. There is, in fact, all of those buildings, though, by our evaluation, end up still acceptable from an overall point of view.

Mr. MOODY. I guess my point was, you gave us a threshold

concept, but below the threshold there are varying probabilities of something going wrong; and you did not agree with that statement. You said indistinguishable probabilities differs, so it was--but when you get to the diesels, I think you would probably stand by what I was basically driving at?

Mr. EISENHUT. That's right. On the limiting case if you carefully repair it, it is back to the original.

Mr. SEIBERLING. I'm sorry, we'll have to recess for another 10 minutes.

[Recess.]

Mr. SEIBERLING..The subcommittee will resume its hearing. Mr. Moody is still recognized.

Mr. MOODY. Mr. Eisenhut--is he still available? Mr. Eisenhut, we'll continue if that's all right with you. We had to kind of break off for the vote.

Mr. EISENHUT. Sure.

Mr. MOODY. The point I was trying to make earlier, we are only talking about relative probabilities and I think you did not agree with me, and I did not make the distinction, building by building. But I was--apparently you in your mind were making that distinction. Because you feel indeed there is a relative probability issue when you get to some of the buildings.

Could we just pick up where we were talking? Go ahead.

Mr. EISENHUT. I believe the relative probability argument would certainly vary with whom you ask. It is not a hard and fast science you can put your hand on, and I think it varies considerably with the set of experts you ask.

Clearly, it is some kind of spectrum, as you go to a building that has more and more damage, the probabilities of that building surviving, for example, an earthquake event or any other different phenomena, certainly is going to change. That's patently from basic understanding.

To quantify it is a whole other matter, and we certainly didn't make any effort in our evaluation to quantify it.

We went to the family of consultants that we use and asked them, basically: Do you believe that these fixes, the solutions to the different buildings, would in fact ensure that in fact they are adequately safe, using the NRC's regulations as a standard of what's adequately safe?

In the limit, as I said, if you replace the foundation you are back to basically an original structure if they did it right. As you get more and more damage, you would get to a building that just patently, from basic logic, has to be somewhat less capable of withstanding an event.

Mr. MOODY. That's why you surprised me with your answer to Mr. Lujan's question when he asked you, are they any less safe; and you said, no; I followed up later because I said it must be.

Mr. EISENHUT. The record will indicate what I said, but I think I said the numbers would be indistinguishable if you went down and looked at those kind of low numbers. That's what I meant by it.

Mr. MOODY. Does what you are saying apply to all buildings or only certain buildings?

Mr. EISENHUT. I said it would be a variation. They are all going to be low numbers. So, when it gets down to such a low aspect, I don't think you can distinguish any of the numbers. And, again, it would vary considerably, with which experts you ask. And that's why, you know, we were really in a hard-pressed situation to evaluate these substructure solutions to a problem.

It is a somewhat controversial fix that was imposed on a number of the facilities. It certainly is the first time it was undertaken in a nuclear project. So the staff felt that we really had to go and collect a group of the experts, such as the Corps of Engineers and the Naval Surface Weapons Center and Brookhaven National Lab and another half-dozen or certainly another three or four independent consultant firms, and brought them together to try to reach a collegial judgment. With the different experts in that area, do you agree that this plant can go forth? That this is an acceptable restoration of the margins of safety? And that's what our evaluation basically concludes. That evaluation was

issued last Fall; that evaluation went to our Advisory Committee on Reactor Safeguards as another level of review of the overall adequacy of the evaluation. They concurred in that overall evaluation and of course that evaluation is, now, the subject of the publications that are going on on the Midland project, and undoubtedly they are being tested in that forum.

It is a--you need to look at it in an overall framework. The utility brought in a number of experts. The Intervenors are cross-examining on a number of aspects and the staff brought forth another group of aspects.

Mr. MOODY. You are going far beyond what I was asking, which is fine. I'm trying to narrow down this issue of acceptable versus distinguishable probabilities. And acceptable is a threshhold. And the other is something else. And you say that you can't quantify it. But don't you have to quantify them to decide that they are over the threshold? Doesn't that require a quantification of probabilities?

Mr. EISENHUT. You probably do, implicitly. You probably don't, explicitly. But get down to what you are really talking is a difference in numbers. Your question really related to, is there a change from the fix over and opposed--over and above what you would have had originally in the correct manner?

Mr. MOODY. And your answer was no for the buildings you

had in mind; but you admit or agree in the case of the diesel generator that that indicates--

Mr. ~~MOODY~~ EISENHUT. But I can't quantify them because I think they are very small numbers.

Mr. MOODY. But you feel the diesel structure in any event, exceeds the threshhold minimum?

Mr. EISENHUT. No. It is acceptable with the modifications, if the modifications are adequately put in place.

Mr. MOODY. But in design terms it is adequate, above the threshold?

Mr. EISENHUT. That is correct. And I should caveat that everything I'm looking at, in fact, the office of NRR looks at it from a design basis. We look at it from the basic design. Putting it in place in the construction and seeing that it is adequately carried out is principally in the region, and I really can't address that end of it.

Mr. MOODY. Thank you, Mr. Eisenhut. Could I ask the other gentlemen at the table if they have any comments on that series of questions?

Mr. KEPPLER. I don't.

Commissioner GILINSKY. If you want my view, Mr. Moody, it's obviously better to have a building without a crack than a building with a crack. The question comes down to whether it meets, in the end, our requirements. As I say, I don't have a personal view on that.

Mr. MOODY. Mr. Cook?

Mr. RONALD COOK. I don't have any comment.

Mr. MOODY. Mr. Cook, you heard the discussion?

Mr. RONALD COOK. Yes. I don't have any comments with regard to the adequacy of the building at this time.

Mr. MOODY. Mr. Landsman?

Mr. LANDSMAN. I agree with Mr. Eisenhut that the underpinning design is acceptable to the NRC staff. However, the diesel generator building is not one of the structures that is going to be underpinned. It was that 20 feet of surcharge that we heard about earlier this morning that we are using to make the building adequate.

As Mr. Keppler said, there's some members of the staff that do not think the diesel generator building is structurally sound.

Mr. MOODY. They do not?

Mr. LANDSMAN. That's right.

Mr. MOODY. Because of the fact it merely has a surcharge rather than an underpinning?

Mr. LANDSMAN. More structural integrity. The building is highly cracked. There's no way to really analyze a cracked concrete structure. So it is more the opinion of everybody--if it was acceptable--

Mr. MOODY. This is indeed a revelation that we have a building here, that, as I gather, essential to the safety of

the whole operation in case of power failure, you need these diesel systems in order to keep the pumps functioning--is that correct?

Mr. LANDSMAN. You need it for a loss of off-site power. They are there to generate power to control the plant, to safely shut it down.

Mr. MOODY. If you had a loss of outside power, which you might have in a natural capacity, if it was an earthquake, it would be essential that these diesel generators function. And if the same earthquake threatened the structural integrity of that building, you might have the same natural event knock out both the failsafe and the backup? In other words, you'd be knocking out--might well knock out the backup itself as well as the primary system which is the very thing you want to prevent? It is not really, given that structural efficiency, you don't really have the joint probability. Two things happening because the same event could trigger both the failures; is that correct?

Mr. LANDSMAN. If you are getting into--

Mr. MOODY. They are not independent probabilities.

Mr. LANDSMAN. If you are getting into probabilities, I think the probabilities that we have been previously discussing--the building is right now standing. I think the low probability that people are talking about is, if you hit it with an earthquake. And I agree that there is a low

probability that you'll get a certain magnitude earthquake there to hurt the structural integrity of the building. But there is that probability, and you have to design for it.

Mr. MOODY. I'm making a generic statement. One of the characteristics of backup systems is that they have an independent probability attached to them about their failure. So that if you have a joint failure you have the multiplication of two probabilities which becomes a very small number indeed very rapidly. However, if the same event can trigger the failure of both the primary and backup system, you no longer have independent probabilities. One of the ways you lose independent probabilities is to have a structural threatened system, such as the one we have just described, where the same natural event, an earthquake, could trigger failures simultaneously in both the primary and backup system. I guess maybe I'm in the wrong--

Mr. LANDSMAN. You have the wrong person.

Mr. MOODY. I'm talking with the wrong person. It's a generic yardstick of failure systems that you want an independent probability attached to their failure as to the primary system they are failsafing, otherwise it is not a failsafe system. Mr. Eisenhut knows. Am I right?

Mr. EISENHUT. Partially. You certainly are right. When you look at two systems, if you have the system that's the operational system, you want a backup system that's

independent. So that the two systems don't interact.

Mr. MOODY. The probability of their both failing becomes the product of the probabilities, becomes a very, very tiny number.

Mr. EISENHUT. That's correct. However, from the earthquake standpoint, that doesn't apply, because if the earthquake shakes the site, the entire site, everything in the site is going to shake. In fact, both of the redundant systems.

Mr. MOODY. It depends on the nature.

Mr. EISENHUT. If you have an earthquake, the site is going to shake. It is a matter of degree of shaking, in fact, that is going to vary as the magnitude of the earthquake varies. So, as Dr. Landsman said, it is really not a question in terms of the soils at this point. It is a question--there are existing cracks in the diesel generator building. What you have to look at is, what is the probability of an earthquake of sufficiently high magnitude, such that it will, A, cause an accident, and, B, an accident which has a loss of off-site power associated with it; and also fail the diesel generator building to such a magnitude that it will in fact disable the emergency power system. So, that sequence of events is a probability of an earthquake is what you start with, as Dr. Landsman said. That's a low probability.

Mr. MOODY. Of that magnitude.

Mr. EISENHUT. It has to be big enough to fail the diesel

building in such a way to disable the AC power.

Mr. MOODY. That's a very different number than it would be if you did not have the cracks in the building.

Mr. EISENHUT. It is a different number and that's why you have to go to--

Mr. MOODY. Significantly different number?

Mr. EISENHUT. I won't necessarily agree with that. But I will--let me put it this way. This is now not a soils question. It is a structural question of concrete, steel-reinforced structure. So what we had to do then was go to the structural experts and ask them for their judgment. Because there really is not a hard and fast formula for analyzing it.

You go to their judgment and their judgment would be that the probability of it is still low enough. But it certainly is higher, from basic logical sense, the probability of that structure failing has got to be higher for a given earthquake than it was before.

Mr. MOODY. Low enough, was what we are talking about. And that's why I tried to make the distinction between--you know, on the one hand we don't--there are indistinguishable numbers and yet low enough--it's almost a contradiction to say you have enough certified about a number to say it is low enough, but not enough to quantify it. I don't want to drag this out any further. Thank you, Mr. Chairman.

Mr. SEIBERLING. Thank you.

Mr. Landsman, the testimony of Mrs. Sinclair contained several problems which she highlighted. One is, she says the concerns and recommendations of field inspectors are overruled by NRC management. NRC management performance is too often place ahead of public health and safety.

I would like to ask Mr. Landsman, Mr. Cook or Mr. Gardner, do you agree with that statement? Mr. Cook?

Mr. RONALD COOK. No, I do not completely agree with that statement. I think that Ms. Sinclair is making reference to an issue that we discussed at the hearings referred to. The staff that was on an inspection wished to issue a confirmatory action letter to the licensee; our conversations with our regional office indicated that that would be forthcoming. However, the next following week we were informed that it would be this--we termed it a reverse confirmatory action letter, in which the licensee spells out the items that we would have put into our letter, except it comes out under their letterhead.

The inspection staff was, as Mrs. Sinclair, I think, indicated in her statement, were somewhat disappointed by this. Or embarrassed, whatever the term might be. However, our desires were that the work would be stopped. And, as a net result, that ultimate result did transpire in the electric area and brought under control.

Mr. SEIBERLING. Is this something that happens frequently? This so-called reverse confirmatory action letter?

Mr. RONALD COOK. Of course, we don't have that many confirmatory action letters to start with. We have had, in the last, oh, I'd say 20 months or so--maybe 18 months, that there were two confirmatory action letters and this reverse confirmatory action letter. So, the ratio there would be one-third to two-thirds.

Mr. SEIBERLING. When you say reverse confirmatory action, instead of NRC writing a letter to the licensee, asking him if he's doing certain things, you can merely give the opportunity to write a letter first and say it? Is that what you are saying?

Mr. RONALD COOK. Yes, sir. My understanding is our present policy is that we write all confirmatory action letters at this time.

Mr. SEIBERLING. All right. Do you want to comment on that, Mr. Landsman?

Mr. LANDSMAN. The only comment I want to make, in the Midland special section that we are in, we get to voice our concerns to our management all the time. It is up to the management to make the decisions of what to do with our concerns.

I think we have set it in the hearing stand on the ASLB. If we really felt very strongly about something there is a

way--ways to voice our concern. We have a dissenting opinion or whatever.

Mr. SEIBERLING. Mr. Gardner, do you have anything to add?

Mr. GARDNER. No, I agree with Dr. Landsman and Mr. Cook.

Mr. MOODY. I would just want to return to what you said, Dr. Landsman. You say that certain of the staff do not feel that the diesel structure, given its practice, does meet the sufficiency standard; am I characterizing what you have said about ten minutes ago correctly?

Mr. LANDSMAN. I think I said some of us think it is structurally unsound because of the crack.

Mr. MOODY. Because of the crack. Do you think it should be rebuilt?

Mr. LANDSMAN. I never looked into how you could fix it. You could build a new wall around it and fasten it together. We really never got into how to fix it. It is just some of us, because it is very difficult, almost impossible to analyze, as I was trying to say, a crack.

Mr. MOODY. But your statement is a strong one, as I understand it. It is not--would you say it again how you said it before?

Mr. LANDSMAN. Some of the members of the staff--or I'll speak for myself, I guess--think it is structurally unsound. There are a lot of cracks in it.

Mr. MOODY. Mr. Chairman, that's a pretty strong,

compelling statement.

Mr. SEIBERLING. Well, it is. I'm still unclear how important the diesel generating--the diesel structure is from a safety standpoint as compared to the auxiliary structure.

Mr. LANDSMAN. It is as important a structure as you have on-site.

Mr. SEIBERLING. I see. Then they are taking steps with respect to the auxiliary power structure but not the diesel structure?

Mr. LANDSMAN. No. We are--they are underpinning the auxiliary building, that's bringing the foundation down to the hard material; the surface water pump structure, we are bringing the foundation down to the hard material; they are rebedding and replacing a great majority of the essential surface water piping on-site; they are rebuilding the foundation on the water storage tanks, which are also important, if those crack.

The diesel generator building, early in the game in 1978 or '79, their consultants have decided to surcharge the building, piling the stand on it, trying to get all the settlements out. In the course of getting all the settlement out of the soils, they continued to build the building. So, while they were trying to sink--trying to get the settlement out of the building while the building was settling, and they continued to build it. And during this whole course of

time it continued to crack more and more.

Commissioner GILINSKY. Mr. Chairman, I think it is worth understanding what the possible consequences here are. What we are worried about in the diesel generator building, as far as I can understand, is that the wall, if unsound, might fall on equipment that is important for safety in an accident. In the other case you are talking about rather more serious consequences. But in any case those are the things that are involved.

Mr. SEIBERLING. That was my reaction, but I don't know--

Commissioner GILINSKY. The diesels are the emergency source of AC power. And they can be very important. There's no question about that. You don't want anything falling on them.

Mr. SEIBERLING. Maybe they ought to tear down the building and just put them in a tent.

Well, thank you. We are going to have to recess again. Let me just ask you again, one other question, Mr. Landsman.

Mrs. Sinclair said very recently, on May 6, the chief soils engineer at Midland, Dr. Ross Landsman, testified that the fact of attempting to force a natural floodplain area in a nuclear plant site.

In the initial design of Midland, the safety related building was designed to set on natural glacial till and so forth. Dr. Landsman was asked by a Consumers Power Company

attorney, ''if fill material had been placed properly and in fact the proper quality assurance had been followed, the Midland facility could be operated with due regard to public health and safety? Dr. Landsman's answer was the personal opinion of the soils engineer: No.

Is that correct?

Mr. LANDSMAN. Yes, that is.

Mr. SEIBERLING. Is that still your opinion?

Mr. LANDSMAN. My personal opinion, had the fill gone in right, I still think as a soil engineer during a 40-year operating life of that plant, we would have had a differential settlement problem.

Mr. SEIBERLING. So in other words your opinion has been overruled, as far as--go ahead?

Mr. LANDSMAN. No, no. We are correcting that, though. We are underpinning most of the installation, except the diesel generator building.

Mr. MOODY. Mr. Chairman, could you yield for a second?

Mr. SEIBERLING. I'm a little puzzled at this point.

Mr. MOODY. Mr. Keppler, who made the decision not to underpin the diesel while doing it for the other?

Mr. KEPPLER. I think the company made that decision.

Mr. MOODY. Why did we let them make that decision if we still have an unsound structure in a basic safety component?

Mr. KEPPLER. This was the proposal adopted by the company.

It was reviewed by the staff here in Washington and they accepted that position.

Mr. MOODY. We have one staff person who just testified that it is unsound as it is.

Mr. SEIBERLING. That's where I am a little confused. I think maybe what Dr. Landsman's testimony was, in his opinion this was not a suitable place to put a plant. Is that right?

Mr. LANDSMAN. No, no, no, that's not what I said. I said that the original design of those structures, and my own opinion, because they were cantilevered out from the rest of the building and supported on uncompacted fill while the rest of the building is sitting on hard, natural material, you are looking for differential settlement problems. But as the original design--

Mr. SEIBERLING. The fill is improper as a basis. Is that what you are saying?

Mr. LANDSMAN. I'm saying the original design of the buildings was improper.

Mr. MOODY. It is inherent in what the design calls for.

Mr. LANDSMAN. That's a better way.

Mr. SEIBERLING. But do you agree that the steps that are now being taken, if taken properly, will eliminate that aspect of the problem?

Mr. LANDSMAN. Yes. Except the diesel generator building.

Mr. MOODY. Except the diesel generator.

Mr. SEIBERLING. Okay. I see.

Mr. MOODY. Mr. Chairman? I know we have to go but, again, why is the NRC allowing that situation, where the diesel generator is, at least by some testimony here, unsound, and it is a major safety component?

Mr. EISENHUT. Let me try to answer your question. If you have need to know and need to do an evaluation on the structural adequacy of a building, we have a special group called the structural engineers. We go and ask the structural engineers and they go get the appropriate--the best consultants that they have under contract that they get.

If you go to a soils problem, and want to evaluate the soils, you go to the soils engineers.

Now, Dr. Landsman is a soils engineer. There is a spectrum of views. He may have views just like I may have views on a number of things in the plant. But in this case, we went to the structural engineers to determine our position on the structural adequacy of the diesel building.

Mr. MOODY. So you are saying he's speaking outside his expertise?

Mr. EISENHUT. I'm saying we went to that group. We didn't go to other individuals. I don't know Dr. Landsman's background well enough to argue that he's outside his field

or not. But I do know that we went to that center of excellence that we have set aside, structural engineering, with their consultants, to do the determination on structural engineering and there is a spectrum of views even within our staff. But it will come to a conclusional judgment at one level, which is what they did in our safely safety evaluation.

Mr. MOODY. Is it possible to segment the problem into structural problems independent of soil problems? Don't they interact? Your expectation of what structural solution is needed depends on what the soil conditions are that pertain? Is that--isn't that a dichotomy that might be dangerous, to segment the problem, to ask the structural people an isolated question and ask the soils people an isolated question and really it is the interaction of the two?

Mr. SEIBERLING. Can you give a short answer?

Mr. EISENHUT. We did not ask them to do it in isolation. We asked them to do it working together. But when you get to someone who has to make a decision, you have to go back to the center of the knowledge in that area and they have to take into consideration everything they hear from the other disciplines, be it soil, mechanical, quality assurance, whatever, which is what they do; but they do not work in isolation.

Mr. SEIBERLING. Would you like to dispose of the NRC

witnesses before we leave?

Mr. MOODY. Procedurally, I assume you mean?

[Laughter.]

Mr. SEIBERLING. The clock is ticking. First of all, Mr. Eisenhut, do you think that someone who, like Mrs. Sinclair, in looking at this from a non-expert point of view over 10 years, would be considered biased if she came to the conclusion that this is not a suitable place to locate this plant in the first place?

Mr. EISENHUT. I certainly don't know enough personally about Mrs. Sinclair, whether or not she is biased.

Mr. SEIBERLING. I mean anybody. Any layman, let us say.

Mr. EISENHUT. Some people are and some people aren't. Just as Congressmen are and regulators are.

Mr. SEIBERLING. I'm not asking was she biased. I'm asking would it be a reasonable thing for someone, after reviewing all these facts, to come to the conclusion, not being an engineer, that this shouldn't have been put in this location in the first place?

Mr. EISENHUT. Let me try to answer it this way. I would agree, and I have stated I have agreed with a number of the points she's made. I don't think they are of the magnitude that would conclude that the plant can't be built in this location.

Mr. SEIBERLING. Would you say reasonable people could

differ in that position?

Mr. EISENHUT. Oh, absolutely.

Mr. SEIBERLING. That's all I'm asking. Now, let me ask Mr. Keppler, I read to Mr. Selby and Mr. Cook of Consumers Power, the ACRS statement of the reasons why they believe--actually it's the the NRR inspection staff. Not ACRS. It is in their reports, however. Is that a correct summary of their viewpoint?

Mr. KEPPLER. Yes, it was.

Mr. SEIBERLING. Do you agree with that, inspectors?

Ms. GARDNER. I wrote it, so I guess I do.

Mr. SEIBERLING. How about the others?

Mr. LANDSMAN. We agree.

Mr. RONALD COOK. I agree.

Mr. SEIBERLING. Do you agree that the response Mr. Selby gave me is a correct response to all those five points? Or is accurate in summary? Maybe you'd rather wait and look and see what she said in the record?

Mr. KEPPLER. I do recall the last item, I was in disagreement on.

Mr. SEIBERLING. Lack of an adequate quality assurance attitude?

Mr. KEPPLER. Yes. An aggressive quality assurance attitude.

Mr. SEIBERLING. Aggressive quality assurance attitude.

Mr. KEPPLER. That was one of them, and I think I would disagree with that point of view. I feel that a more aggressive quality assurance approach by the company would have headed off a number of these problems.

Mr. SEIBERLING. Do you feel that way, Mr. Landsman?

Mr. LANDSMAN. I'll agree with Mr. Keppler.

Mr. SEIBERLING. Any of the other inspectors? How do you feel?

Mr. GARDNER. I agree with Mr. Keppler.

Mr. RONALD COOK. I agree with that. In fact, we'll stress that.

Mr. SEIBERLING. This has been one of my biggest concerns in this whole field of nuclear power. I have the feeling that too many companies do not have the right attitude toward quality control, and zero defects. And, in fact, I would extend that to a lot of American industry, and that's one of the reasons that we are in big trouble in our economy in competing with the Japanese and others.

Do you feel that they are taking steps now to correct that attitude? Not just to correct already pointed out deficiencies?

Mr. KEPPLER. I do. But I would have to say I have been disappointed before, and that's the reason for the insistence that we have a backwards look and a forward look at this project. And I feel that I can't have the confidence

in this aggressive attitude, approach of the company, without a sustained demonstration of it.

Words just aren't good enough.

Mr. SEIBERLING. What do you feel is the root cause of this problem?

Mr. KEPPLER. Mr. Seiberling, if I knew the root cause of the problem, I would have fixed it. I have tried to look into what really contributes to the problem, and you can get as many views on that subject as you go around this room. But, when I looked at all of the efforts, by my staff and others to try to pinpoint the problems, we came to the conclusion that we really aren't sure why Consumers Power is having trouble.

As we pointed out earlier, they have dealt with the Palisades problem successfully. And I think they mean well, but for some reason they haven't been able to come through. And we are just going to persist in our efforts.

Mr. SEIBERLING. I just have one other point. Ms. Garde listed six things that on Monday they requested the Commission to do. I guess the answer as to what they are going to do about that will become apparent when they have acted on the request; but, will the Commission take up those items and give it some consideration?

Commissioner GILINSKY. I hope so, Mr. Seiberling. I hope that our meeting the other day was the first of a number of

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DIRECTOR'S DECISION UNDER 10 CFR 2.206

By petition dated June 13, 1983, the Government Accountability Project (GAP), on behalf of the Lone Tree Council, concerned citizens of central Michigan, and numerous nuclear workers on the Midland Nuclear Power Plant site, requested that, among other things, the Nuclear Regulatory Commission (NRC) take immediate action to modify the construction permits to add hold points, require a management audit of Consumers Power Company and reject the construction completion program as now written.

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

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

The Construction Completion Program (CCP) is Consumers Power Company's plan to provide guidance in the planning and management of the construction and quality activities necessary for completion of the construction of the Midland Nuclear Plant. To date the CCP has undergone several alterations in response to comments from the NRC, intervenors, and the public. The June 10, 1983, CCP submittal includes: (1) NRC hold points; (2) the requirement for 100% reinspection of accessible installations; (3) the integration of QC with CPCO Midland Project Quality Assurance Department (MPQAD); (4) the retraining and recertification of QC inspectors; (5) the general training of field engineers and craft personnel; (6) the revision, as necessary, of Project Quality Control Instructions; (7) CCP team training; and (8) the independent third party review of CCP activities. The CCP does not include the remedial soils program, nuclear steam supply system installation, heating, ventilation, and airconditioning system installations, and pipe hangers and electrical cable reinspections.

The CCP is divided into two phases. Phase 1 is a systematic review of the safety-related systems and areas of the plant. This review will be carried out on an area-by-area basis and will be done by teams organized with systems responsibility. The product from this phase of the program will be a clear definition of remaining installation work including any rework and an up-to-date inspection status which will provide a verification of the quality of existing work.

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

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

After receipt of GAP's petition, the Commission referred the petition to the Director, Office of Inspection and Enforcement for consideration in accordance with 10 CFR 2.206 of the Commission's regulation. The petition contains numerous allegation and support exhibits concerning deficiencies in CPCo's management, the construction completion program, the quality assurance program, and inadequacies in the NRC's regulatory overview of Midland construction. The petitioner asks the Commission to take six actions.

1. Modify the Construction Permit (Midland Nuclear Power Plant, Units 1 and 2) to include mandatory "hold points" on the balance-of-plant (BOP) work and incorporate the current Atomic Safety and Licensing Board (ASLB or Board) ordered "hold points" on the soils remedial work into the Midland Construction permit.

2. Require a management audit of Consumers Power Company (CPCo) by an independent, competent management auditing firm that will determine the causes of the management failures that have resulted in the soils settlement disaster and the recently discovered Quality Assurance breakdown.

3. Reject the Construction Completion Plan (CCP) as currently proposed, including a rejection of Stone and Webster to conduct the third party audit of the plant. Instead a truly independent, competent, and credible third party auditor should be selected with public participation in the process.

4. Remove the Quality Assurance/Quality Control function from the Midland Project Quality Assurance Department (MPQAD) and replace them with an independent team of QA/QC personnel that reports simultaneously to the NRC and CPCo management.

5. Increase the assignment of NRC personnel to include additional technical and inspection personnel as requested by the Midland Section of the Office of Special Cases (OSC); and

6. Require a detailed review of the soils settlement resolution as outlined in the Supplemental Safety Evaluation Report, incorporating a technical analysis of the implementation of the underpining project at the current stage of completion.

On July 22, 1983, Edward L. Jordan, Acting Director of the Office of Inspection and Enforcement acknowledged receipt of the GAP petition and deferred action on the petition until after the staff had completed its evaluation.

The first requested action is:

> "Modify the Construction Permit (Midland Nuclear Power Plant, Units 1 and 2) to include mandatory "hold points" on the balance-of-plant (BOP) work and incorporate the current Atomic Safety and Licensing Board (ASLB or Board) ordered "hold points" on the soils remedial work into the Midland construction permit."

In their petition, GAP requested hold points in the CCP to require NRC review before proceeding as follows:

1. Review the Construction Work Packages (CWP) and Quality Work Packages (QWP) before the initiation of Phase 2 activities (Page 11).

2. Review training and recertification of QA/QC employees, the process for verification of completed inspections activity, and the process for the installation and inspection status activity before beginning any Phase 1 work. The release of work should be transferred to the third party team (Pages 11-12).

3. During the Phase 1 reinspection activities, either an NRC or a third party hold point, to determine the adequacy of the "accessible systems" approach (Page 13).

On December 2, 1982, when CPCo presented the Construction Completion Program (CCP) to the NRC, CPCo was informed by Region III staff that it would be necessary to incorporate NRC hold points into the CCP. Four points were identified in the CCP where it was desirable for NRC inspectors to review the completed work before proceeding. These hold points were:

1. Review and approval of training and recertification of QC inspectors before beginning Phase 1.

2. CCP team training before beginning Phase 1.

3. Review and approval of the Quality Verification Program (QVP) and status assessments before beginning Phase 1.

4. Review and approval of the program for rework or systems completion work before beginning Phase 2.

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

Hold points 3 and 4 are described in the licensee's CCP dated June 10, 1983, Section 5.0, Program Implementation.

The NRC has carefully reviewed the CCP and is satisfied that the NRC hold points, as identified in the June 10, 1983, CCP submittal, will satisfactorily allow the NRC to assess the adequacy of the licensee's program. With regard to third-party hold points, the staff feels that the third-party should have the freedom to select when and if hold points are to be used in its overview role. In addition, the NRC and the third party will monitor the reinspection activities. If nonconformances are found that have a significant impact on inaccessible items, the scope may have to be increased to include those items. The NRC considers these controls to be adequate for the implementation of CCP Phase 1 activities.

Action has previously been taken by the NRC to incorporate the current Atomic Safety and Licensing Board (ASLB) ordered hold points on the soils remedial work into the Midland construction permits. On April 30, 1982, the Atomic Safety and Licensing Board ordered Consumers Power Company not to perform any safety-related work in the soils remedial area unless previously authorized by the NRC. The Midland Construction Permits were amended on May 26, 1982, to incorporate the Atomic Safety and Licensing Board ordered hold points.

The second requested action is:

> "Require a management audit of Consumers Power Company (CPCo) by an independent, competent management auditing firm that will determine the causes of the management failures that have resulted in the soils settlement disaster and the recently discovered Quality Assurance breakdown."

The Staff is deferring a response to GAP's second request. We have found the CCP to be an acceptable program for the completion of construction of the Midland plan and believe that the CCP can be commenced without prejudice to a subsequent decision by the NRC to require an independent management audit. The decision on whether to require an independent management audit will be influenced by CPCo's performance under the CCP. We will respond to this aspect of GAP's petition when we have reached a decision on whether to require an independent management audit.

The third requested action is:

> "Reject the Construction Completion Plan (CCP) as currently proposed, including a rejection of Stone and Webster to conduct the third part audit of the plant. Instead, a truly independent, competent, and credible third-party auditor should be selected with public participation in the process."

The request to reject the CCP as currently proposed and to reject Stone and Webster (S&W) as the third party overviewer is denied.

The CCP was initially proposed on December 2 1982, when CPCo presented the CCP to the NRC. Public meetings were held on February 8, 1983, and on August 11, 1983, to discuss the CCP and third party reviewers and to solicit comments regarding the CCP from GAP, intervenors and the public. In addition, written comments have been received from GAP and a number of phone calls and meetings with GAP have been held. Comments received have been taken into consideration

during the NRC's review of the CCP and the third party overviewer. The NRC in its review of the June 10, 1983, CCP submittal has concluded that the proposed CCP represents a satisfactory program for addressing the generic applicability of the problems identified by the NRC's inspection of the diesel generator building.

The use of S&W to perform the independent third party overview of the CCP implementation is in compliance with the criteria in the February 1, 1982 letter from Chairman Palladino to Congressman Dingell and Ottinger. As set forth in the Staff Evaluation attached to the , 1983 letter from Mr. Keppler to Mr. Cook, S&W meets these criteria. Additionally, the S&W site staff will be augmented as activity at the site increases and the overview will continue as long as the NRC believes there is a need for it. The fact that only nine auditors from S&W were identified in the initial S&W proposal, a fact to which GAP points as indicating the inadequacy of S&W to perform the third party audit, is not considered pertinent by the Staff since there was little activity to be audited at that time.

GAP also asserts that the CCP is deficient because neither the procedures nor the evaluation criteria for the inspections are specified in the CCP. The CCP is a program plan, which would not be expected to include detailed implementing procedures. A sample of these procedures, including inspection criteria will be evaluated to assure adequacy.

The fourth requested action is:

> "Remove the Quality Assurance/Quality Control function from the Midland Project Quality Assurance Department (MPQAD) and replace them with an independent team of QA/QC personnel that reports simultaneously to the NRC and CPCo management."

This request is denied.

Under the Commission regulations, (10 CFR Section 50.34(a)(7) and Appendix B to 10 CFR Part 50) the permit holder is ultimately responsible for the establishment and execution of its quality assurance program, though it may delegate to others the work of establishing and executing the program (Criterion 1). CPCo had delegated this task to Bechtel for the construction of Midland with CPCo (MPQAD) fulfilling its responsibility by auditing Bechtel's implementation of the QA/QC program. The CCP removes Bechtel from the task of QC implementation of the program and places that task with CPCo's MPQAD. This in effect separates the QC function from the construction function which remains with Bechtel. The NRC staff views this as a positive step in improving CPCo's control over the quality of construction of the plant.

The fifth requested action is:

> "Increase the assignment of NRC personnel to include additional technical and inspection personnel as requested by the Midland Section of the Office of Special Cases (OSC)...."

It is not fully within the NRC staff's power to either grant or deny this request. The actual creation of positions within the OSC is a matter for the budget process. RIII has requested that inspection personnel available to work on Midland be augmented and anticipates that the request will be granted. This matter is, however, amenable to no more specific answer in response to a request under 10 CFR Section 2.206.

The sixth requested action is:

> "Require a detailed review of the soils settlement resolution as outlined in the Supplemental Safety Evaluation Report, incorporating a technical analysis of the implementation of the underpinning project at the current stage of completion."

A detailed review of the program for resolution of the soils settlement problem has previously been conducted by (or for) the NRC Staff. By previous action this request has been granted, at least in part. In 1979 the U.S. Army Corps of Engineers was contracted to assist the Staff in the safety review of the Midland Project in the field of geotechnical engineering. After the soils problem became known, additional assistance to the Staff in specialized engineering fields (structural, mechanical, and underpinning) was obtained from the U.S. Naval Surface Weapons Center, Harstead Engineering Associates, Geotechnical Engineers, Inc., and Energy Technology Engineering Center. These consultants assisted in the review of technical studies, participated in design audits, visited the site, provided input to the SER, and provided expert testimony before the Atomic Safety and Licensing Board. Additionally, the NRC currently has a standing contract with Geotechnical Engineers Inc. and plans to use their expertise during remedial soils and underpinning activities.

Recently in the Midland's Atomic Safety and Licensing Board hearing and again before Congressman Udall's Subcommittee on Energy and the Environment (Committee on Interior and Insular Affairs) a Region III inspector stated his concerns regarding the structural adequacy of the diesel generator building because of cracks in the concrete. His concerns have since been documented and the NRC staff has formed a task group to reevaluate the structural design and construction adequacy of the Midland diesel generator building. Following this review, a final report will be issued after review by outside consultants. Further actions, if appropriate, will be taken.

To the extent that GAP is requesting a further independent review of the soils settlement problems, the Staff denies the request. The Staff believes that it has already received the consultation of competent independent reviewers.

With respect to the diesel generator building, the Staff intends to have an independent review conducted of the draft task force report. We believe this satisfies the request by GAP for an independent review of the structural adequacy of the diesel generator building.