



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

*Attorney
 G. Hill*

November 3, 1982

PRINCIPAL STAFF	
✓ A	✓ [handwritten initials]
N/RA	✓ [handwritten initials]
V/RA	✓ [handwritten initials]
D/SEP	✓ [handwritten initials]
DE/CS	✓ [handwritten initials]
DE/TP	✓ [handwritten initials]
ML	
OL	FILE [handwritten initials]

MEMORANDUM FOR: James A. Fitzgerald, Director
 Office of Investigation

FROM: Victor Stello, Jr., Deputy Executive Director
 Regional Operations and Generic Requirements

SUBJECT: DENNIS SAUNDERS

I received the enclosed statement from Dennis Saunders on Monday, November 1, 1982. It contains allegations of improper work at the Midland facility. I have faxed a copy of this statement to Region III for their information, but I assume you will discuss with Region III the nature and extent of any further followup of this matter.

Victor Stello, Jr.
 Victor Stello, Jr.
 Deputy Executive Director
 Regional Operations and
 Generic Requirements

Enclosure:
 As stated

cc: J. G. Keppler, R-III

NOTE: Mr. Saunders has requested that this information be withheld from public disclosure since he plans to use it in civil action.

FOR:
VIC SIC
N
C

STATEMENT OF DENNIS P. SAUNDERS

My name is Dennis P. Saunders. I have over sixteen years of experience in systems design and analysis, technical management systems design, and structural analysis. I have worked as a Pipe Stress Engineer on many nuclear power plant construction jobs, served as a Consulting Engineer and Stress Analyst on still other nuclear facility construction projects. I have extensive project management experience in a variety of areas of high technology.

The purpose of this statement is to call attention to situations and circumstances related to the construction of the Midland (Michigan) nuclear power plant by the Bechtel Corporation and its subcontractors (including A.P. Engineering) for the Consumers Power Company. It is my expert opinion that, despite the good intentions of parties involved, certain situations continue to exist at this facility which involve a serious risk to the health and safety of the citizens of Michigan and quite possibly the citizens of surrounding states and Canada.

I have attempted to work for the resolution of these potentially dangerous situations through the normal channels for more than a year. To date, significant effort has been expended on the part of many of the participants: Consumers Power Company, The Bechtel Company, A.P. Engineering, the Nuclear Regulator Commission, and last, but not least, by myself. These efforts have been extensively documented, but there remain safety-related issues which have not been adequately addressed. After attempting to have them resolved within the organizations constructing the Midland Nuclear Power Plant. I found my services as a pipe stress engineer and consultant were suddenly no longer needed, even though demonstrably much work remained to be done. According to written documentation by Consumers Power, significant amounts of overtime was expended by pipe stress engineers after I was terminated.

In attempting to follow-up on this potentially dangerous situation I was informed by the Vice President of Consumers Power Company, Mr. James W. Cook, that "we feel there can be no more gained from our continued interaction with you at this time, and there is no interest by Consumers Power in retaining your services at the Midland Nuclear Plant." Further, my concern and efforts to determine if the changes required by the Nuclear Regulatory Commission had been implemented were characterized by Mr. Cook as "disruptive and unproductive." He also requested that I have no further contacts with any of "our people"--including by implication everyone working at the construction site as well as those employed by Consumers Power directly.

Starting from the time, four days after the NRC issued an Immediate Action Letter with regard to inadequate construction practices and management, when I contacted management to report

Dup of 8406050036

the continuation of the situation which led to the issuance of the letter by NRC, to the present, I have observed systematic attempts to remove me from the scene. I was identified as the one filing the allegations of non-compliance. I was fired from my job. It appears that efforts have been made to discredit me as a technical expert and attempts on my part to obtain employment elsewhere have been unsuccessful. It is my belief, based on the data which I have been able to obtain from the NRC and other sources, that situations and circumstances which are potentially dangerous to the public welfare and safety continue to exist at the Midland Nuclear Power Plant.

The balance of my statement is a chronological and detailed summary of events, including the issuance of further calls for corrective action by the NRC which support the allegations which I have made, and which I, being unable to gather information to the contrary, must reluctantly continue to make.

DETAILED STATEMENT OF EVENTS INVOLVING DENNIS P. SAUNDERS
AND THE CONSUMERS POWER CO. MIDLAND NUCLEAR POWER PLANT

On March 2, 1981, I signed a letter contract with A. P. Engineering to provide expert services, through them, to the Consumers Power Co. Midland Nuclear Power Plant construction project.

On May 22, 1981, the Nuclear Regulatory Commission conducted an inspection of the facility and issued an Immediate Action Letter that day. This order required a halt in the issuance of fabrication and construction drawings for the installation of safety-related small bore pipe and piping suspension systems until the following corrective actions were taken:

- 1) up-to-date specifications and procedures must be placed in work areas;
- 2) training for all personnel involved with performing stress analysis of piping was to be improved; and
- 3) a review was to be conducted of all isometrics which formerly lacked supporting calculations.

The essence of the problem was that the small-bore piping systems were being installed without accurate and reliable engineering analysis of the stresses they were subject to when installed.

On May 26, 1981, in accord with the requirements of the 1954 Atomic Energy Commission Act, section 223, stating the responsibilities of persons observing acts of commission or omission which potentially threaten the safety and welfare

of citizens (and specifying civil and criminal penalties for non-compliance), I reported my concerns about apparent violations of the letter and spirit of the NRC Immediate Action Letter to both A. P. Engineering and Bechtel management. Although some corrective efforts were underway, non-conforming activities also continued. In the four days following the issuance of the IAL (a very serious matter), no efforts were made or were being made to bring the project into compliance on procedures for field modifications of piping suspension blueprints. These changes in design, called redlining, were being made without the required calculations. Only preliminary calculations were being done, rather than what are called committed preliminary design calculations (CPDC), which were what Bechtel Resident Engineering mandated. In my meeting that day with Bechtel Resident Assistant Project Engineer, Pat Cocoran, and Bechtel employees Tom Supplee and Jim Reinsch, I informed them that piping suspension redlines had been approved despite their lack of CPDC's. An Allegation Evaluation was drawn up including the substance of my comments and an indication by Bechtel that the problem did, in fact, exist.

On May 27, 1981, A. P. Engineering tried to transfer me from the night shift where I was the senior M.E. and involved with the "total picture" to a lesser position on the day shift. The intervention of Mr. Tom Supplee, Bechtel Chief Engineer on the night shift, prevented this action from occurring.

On May 28, 1981, Pat Corcoran issued a letter to Bechtel upper management indicating that the NRC May 22, 1981 IAL had been complied with. At the same time, I personally observed that no corrective action had been taken on the redlining problems Bechtel had admitted did exist the previous day. Pipe and piping systems continued to be installed without the required stress calculations.

On June 12, 1981, my contract with A. P. Engineering was canceled as of that day. I could not really believe that this was happening to me. There were supposed to be regulations preventing this type of action. I was not told that my work was in any way unsatisfactory. As a result, I felt that I would probably be hired directly by Bechtel or Consumers Power to continue working on the project.

On June 15, 1981, I called Bechtel and A. P. to urge them to continue compliance with the AEC Act, section 223.

On June 17, I held another meeting in my office. Present were Bob Whittaker of the Midland Project Quality Assurance Department (a CPC employee), Fred Youny, Tom Supplee, Pat Corcoran, and Kirby Bushong. Bob Whittaker assured me that an investigation would be undertaken. I agreed the project should resolve the issue itself if it could be done quickly

and minimize my exposure to civil and criminal penalties specified by the 1954 AEC Act.

On June 19, Bob Whittaker, Pat Corcoran, and I met again and I restated my desire to have the problem corrected by CPC and Bechtel, but quickly.

At some point on or about this time, however, Mr. Don Miller, Consumers Power Co. Site Manager, intervened. My personal contacts with him led me to think that he was more concerned with possible publicity of the problem than he was with its solution. I do not know what actions he took relative to the resolution and elimination of the problem.

On June 29, 1981, Mr. Miller called me to complain about recent articles in the newspaper about the Midland project. He seemed very concerned that this type of publicity should not happen in this case. I found out later that on this same day, Mr. Miller wrote to Mr. Cordell Williams of the Nuclear Regulatory Commission, Region III, assuring him that all the allegations had been investigated and that the matter was under control. Mr. Miller related to me the substance of a conversation that he had had with Region III. Nothing I was told gave me confidence that the problem had been resolved. Up until this time, I had made no formal complaints to NRC, feeling the problem would be solved in-house by Mr. Whittaker.

Later that day, in an un-related matter, in the course of a conversation with Victor Stello, deputy head of NRC's Washington staff, I was asked "How're things going at Midland?" On a personal basis, engineer-to-engineer, I mentioned that I had run into some resistance in my efforts to ensure full compliance with the IAL. While I did not lodge a formal complaint, this is how the Washington Office of the NRC became aware of the problem. I knew Mr. Stello had taken action when I received a call from Mr. James Keppler of the Region III office five minutes after my call to Stello.

Don Miller called me sometime later to tell me that Region III had told him that there would have to be an investigation of the matter since Washington was aware of the problem. At this time, Consumers Power Co. denied the substance and character of my allegations and sent a copy of the denial to NRC.

On July 2, 1981, I wrote to the head of NRC's Region III Office, Mr. James Keppler, informing him that, despite CPC's assurances to the contrary, the issues raised and actions called for in the IAL of May 22, 1981 had not been taken care of by CPC or Bechtel. I was aware of Mr. Cordell Williams' letter which stated that the redlines were now properly supported. I told Mr. Keppler that the calculations referred to in Mr. Williams' letter were not

the required COMMITTED calculations. As a result, I estimated that 50% to 75% of the redlines described in the letter were worthless. I stated that "the hanger loads on record are valueless BECAUSE WE DO NOT KNOW WHERE THEY COME FROM". In the construction of a nuclear facility one does not guess. I further commented that what was once a problem which could have been fixed in five days had now gone on for over a month with no end in sight. I stated that in my professional and expert opinion, "the technical management competence for the Midland Power Plant and their response to your IAL is far less than satisfactory." I encouraged NRC's participation in the matter to make Midland a safe unit.

This letter set in motion an investigation by NRC inspector I. T. Yin.

On July 16 and 17, 1981, Mr. Yin conducted his Midland Project investigation. This was followed up with further inspections on July 23 and 24. At the completion of his first inspection, Mr. Yin held an eight hour meeting with Consumers Power personnel to discuss his confirmation that, indeed, the engineering review of the redlines was deficient.

On July 20, 1981, I met with Inspector Yin and Ron Cook, Jerry Phillips, and Duane Danielson of NRC's Region III staff. We discussed the whole situation, including Bechtel's continuing non-compliance with the spirit and letter of the IAL. Inspector Yin reported on his observations and told his superiors and me that he would like to have stopped everything to get all the calculations done originally in lieu of issuing the IAL. He stated that Consumers Power told him that it would cost much more to remedy the problem if a stop order was issued, skilled workers left, and Bechtel had to train an entirely new group of inspectors and engineers. One of the results of the meeting was agreement on the basic statement of a new standard for redlining approval.

The NRC personnel present at this meeting indicated a determination to follow through on CPC's compliance with special care. Bechtel would, in addition, be required to survey large-bore piping and all safety equipment throughout the plant to determine if the same sort of problems had been, (or were now) occurring in those areas.

On August 7, 1981, the results of Inspector Yin's investigation were conveyed in written form to CPC. The letter, from Mr. Keppler, outlined the violations which had been uncovered in the field modifications of the redline drawings and required that CPC submit a response. As a result of earlier discussions at the Midland site between CPC and NRC Region III personnel, CPC had already sent two letters to document proposed corrective actions. The letter from Mr. Keppler stated that these proposed actions were being reviewed by NRC staff.

On or about August 21, 1981, I received a letter from Mr. Keppler. He referred to the inspections that his staff had made. On the basis of their findings, he stated that he considered the matter resolved. He assured me that my allegations had been fully taken into account and that the problem was under control.

On August 28, 1981, I received a letter from Mr. James Cook, Vice President of Consumers Power Company which contained similar statements and indicating that he considered the matter closed. This letter further stated that my services were not required at the Midland project and he requested that I not contact anyone at the nuclear plant site, characterizing my contacts as disruptive and unproductive. He closed the letter with the expected statement that he would investigate any further allegations which I would put into writing.

My participation in the resolution of the problems at the Midland site was made much more difficult following this time. Even though the positions and general comments of NRC's Region III Management stated:

- a. Drawings already issued to the field, which are not supported by CPDC's shall not be used after July 27, 1981.
- b. The procedural control of the design and installation shall be modified to include the methodology presented in this meeting (July 24, 1981, between NRC and CPC) and submitted to the NRC for review by August 3, 1981.
- c. The RE evaluation of stress levels resulting from changes to redline drawings should be supported by a documented description of rationale and/or calculations.
- d. Project approved drawings without appropriate CPDC's were not considered to be engineering approved drawings.
- e. (Emphasis mine, DPS) THE LICENSEE SHOULD INITIATE AN INVESTIGATION TO IDENTIFY WHETHER OR NOT THERE WERE SIMILAR PROBLEMS EXISTING IN OTHER SITE ACTIVITIES.
- f. It has been Region III's experience that extensive delay in incorporating field redline changes into the final drawings has resulted in construction and QC problems at other facilities.

There is no way that these requirements could be met in a brief period of time if they conformed with accepted engineering practices related to the construction of nuclear power facilities. Further correspondence between NRC and CPC followed.

On October 28, 1981, NRC reprimanded CPC for its behavior and violations with regard to the redline drawing procedure. This communication concluded that:

- 1) from March, 1979 through November, 1980, there were no procedures for engineering review of redline drawings;
- 2) engineering procedures for this review were also inadequate at the time of the July inspection; and
- 3) at the time of the inspection, site design engineers were designing piping supports without the required committed preliminary design calculations.

On January 26, 1982, eight months after the noncompliance was first officially noted, and slightly less than three years after the deficiencies first began to occur, CPC admitted that it was in noncompliance with regard to procedures for handling redline drawings and ordered a comprehensive audit of all site design procedures. CPC also noted that this review had turned up two additional difficulties (which they characterized as minor). They stated that all of these problems were in the process of being corrected.

On July 15, 1982, ^{NRC} issued a report to Consumers Power Company detailing the findings of NRC Inspector I. T. Yin. Specifically:

In discussion with the licensee management personnel, the inspector noted that THERE SHOULD BE A 100% RE-INSPECTION OF ALL THE HANGERS INSTALLED IN 1980 AND A SAMPLE RE-INSPECTION OF HANGERS INSTALLED IN CY 1981 AND 1982. (Emphasis mine, DPS)

On September 8, 1982, it was reported to me that Consumers Power (through its contractors) was proceeding with the installation of new piping systems on two 60 hour per week shifts--even though there remain very serious issues unanswered which relate directly to the safety of the entire installation.

In my professional opinion, it would have been impossible for CPC to have completed the work which Inspector Yin indicated should be done in the NRC July 15, 1982 report prior to September 8, 1982. This means that the safety and cost problems at the Midland Nuclear Plant site are being compounded by poor technical management.

I have been supported by the results of NRC investigations and ultimately by the actions taken by CPC on small bore piping. 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. Several CPC violations of item e. have been issued by NRC to date.

The personal cost to me has been extraordinary. My reputation has been compromised by the actions of Consumers Power Company, Bechtel Engineering, and A.P. Engineering. My ability to earn a living has been damaged. I have had to spend substantial sums of my personal funds to continue to seek to ensure the public safety and vindicate my professional competence.

The history of this situation is a case study in the disregard for procedures in safety-related piping and the extreme reluctance on the part of corporate bodies to admit to nonconformance when it is brought to their attention.

I feel that I should be made whole for my participation in this matter, both financially and in terms of my reputation. Further, I feel that changes are indicated to make the likelihood of a similar situation arising again remote. Specifically, the NRC needs to increase its inspectors stationed at nuclear power plant construction sites to twelve to provide complete coverage. Further, legislation should be passed extending the period allegations are covered from 30 days to one year to ensure fair treatment. Nuclear Power Plant constructors should be required to not only post this information, but carry out a quarterly or semi-annual information campaign among the workers, to inform them of their rights and responsibilities in ensuring the safety of the public in the construction of a nuclear facility.

Thank you.

Dennis P. Saunders 10/29/82
Dennis P. Saunders date

U. S. FEDERAL REGULATORY COMMISSION
REGION III

SUBJECT



**Consumers
Power
Company**

Dean L. Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF		
RA	has	DRP
O/RA		DE
A/RA		DRMS
RC		DRMA
PAO		SCS
SGA		PL
ENF	File	has

orig + 3

February 28, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7370
12*32

We are enclosing the proposed list of work in accordance with the "NRC and CPCo Work Authorization Procedure" for the period between March 1, 1984 and March 31, 1984. Please review this work list and authorize the specific work items as established in the procedure.

Also enclosed is a Supplemental Work Activity List for April, 1984. Your review, comments and authorization of the specific work items as in accordance with the procedure are similarly requested.

Dean L. Quamme

DLQ/AEB/klw

Attachments

MAR 5 1984

~~8403080298~~

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>GENERAL</u>			
<u>QUALITY PROGRAM</u>			
	102351100	Approval of MPQP-2, Rev 1	A (10/22/82)
	102351125	Approval of MPQP-1, Rev 7	A (9/27/83)
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
<u>WEST FIVP</u>			
	102150010	Install Anchor Bolts & Rods (includes hardness test on rods, drill concrete & steel and tensioning)	1 (8/12/82) A (8/13/82)
<u>EAST FIVP</u>			
	112150010	Install Anchor Bolts & Rods (includes hardness tests on rods, drill concrete & steel, and tension)	1 (8/12/82) A (8/13/82)
<u>BUILDING MONITORING</u>			
	102050130	Rework Instrument Conduit and Cable for EX2 and EX3 per Disposition on NCRs S-00561 and S-00563	A (1/30/84)
	102050120	Rework Conduit and Cables DMD5-E per Disposition of NCR FSO-322	A (1/30/84)
*	102950125	Install vertical movement monitoring instruments in Control Tower Wall	
	136050043	Maintain Instrument System	3 (8/12/82) A (8/12/82)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	132550050	Install, wire conduit and raceway from pier to data room for Pier Instrumentation	2(12/13/82) A(12/13/82)
	165052021	Terminate Cables in Data Room & Terminal Boxes & Pier Instrumentation	A (3/10/83)
	146050000	Maintain and monitor jacking load on installed piers and grillages ⁵	A (01/30/84)
		<u>GENERAL TEMPORARY DEWATERING</u>	
	125150050	Continue Monitoring Utility Protection Pits (4)	3 (8/12/82) A (8/12/82)
	115150020	Continue Operation of Freeze System & Wells	3 (8/12/82) A (8/12/82)
	522550020	Repair Six (6) Existing Observation Wells (WB-1, WP-2, COE-10, PD-18, W-2, PD-38)	1 (4/5/83) A (9/23/83)
	102550135	Install piezometers BB1 & BB2 in Auxiliary Building Control Tower	A (7/28/83)
		<u>CRACK MAPPING</u> (includes scaffolding platforms, ladders and extra-ordinary clean up)	
	142550100	Remove concrete surface as required for crack measurements.	A (1/24/84)
	102250200	EPA (East & West)	3 (8/12/82) A (8/12/82)
	102250105	FIVP (East & West)	3 (8/12/82) A (8/12/82)
	102250100	Control Tower & Remainder of Aux Bldg	3 (8/12/82) A (8/12/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7370

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER E13</u>	
	155053040	Excavate Pier E13 ²	A (08/29/83)
	155054035	Install Pier E13	A (01/04/84)
		<u>PIER W13</u>	
	165053040	Excavate Pier W13 ²	A (08/29/83)
	165054035	Install Pier W13	A (01/04/84)
		<u>PIER KC4</u>	
	155052032	Finger Drift to KC4 ¹	A (01/20/84)
	155053315	Excavate Pier KC4 ²	A (01/20/84)
	155054310	Install & Load Pier KC4 ³	A (01/20/84)
		<u>PIER KC9</u>	
	165052032	Finger Drift to KC9 ¹	A (01/20/84)
	165053315	Excavate Pier KC9 ²	A (01/20/84)
	165054310	Install & Load Pier KC9 ³	A (01/20/84)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>LEVEL C WALES</u>			
	165055305	Install Level C Wales, West Side	A (08/29/83)
	155055305	Install Level C Wales, East Side	A (08/29/83)
<u>DOWELS AT FIVP</u>			
	155050325	Install dowels at east FIVP	1(02/06/84)
	165050325	Install dowels at west FIVP	1(02/06/84)
<u>PIER CT12</u>			
	155052035	Drift to CT12 from UAT ¹	A (09/30/83)
	155053050	Excavate Pier CT12 ²	A (01/04/84)
	155054045	Install & Load Pier CT12 ³	A (01/20/84) Install Only
<u>PIER CT1</u>			
	165052035	Drift to CT1 from UAT ¹	A (09/30/83)
	165053050	Excavate Pier CT1 ²	A (01/04/84)
	165054045	Install & Load Pier CT1 ³	A (01/20/84) Install Only

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>EXCAVATION ZONES</u>	
	155052070	Excavate/Lag Zone Y3	1(02/06/84)
	165052070	Excavate/Lag Zone Z3	1(02/06/84)
		<u>SUPPORT BRACKET</u>	
	152555010	Install Temporary Support Bracket at E1	1(11/16/83)
	162555010	Install Temporary Support Bracket at W1	1(11/16/83)
		<u>PIER E16</u>	
	155052055	Access pit at Pier E16. Excavate, install and load Pier E16.	A (01/20/84)
		<u>PIER W16</u>	
	165052055	Access pit at Pier W16. Excavate, install and load Pier W16.	A (01/20/84)
		<u>PIER E17</u>	
	155052075	Drift to Pier E17 from E16. Excavate, install and load Pier E17.	A (01/20/84)
		<u>PIER W17</u>	
	165052075	Drift to Pier W17 from W16. Excavate, install and load Pier W17.	A (01/20/84)
		<u>LONG DRIFTS</u>	
	155052030	Drift to KC3 from KC2 ¹	A (07/28/83)
	155052320	Drift From KC3 to 13ft East of KC4 ¹	A (09/23/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7370

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165052320	Drift From KC10 to 9ft West of KC9 ¹	A (09/23/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>POST TENSIONING SYSTEM</u>	
	202555170	Post Tensioning Tendon inspection & maintenance	3(12/7/82) A (12/7/82)
		<u>DEWATERING</u>	
	207050646	Continuing Monitoring & Repair of the CWIS-SWPS Hydraulic Seal	A (9/27/83)
	207050635	Install Dewatering Discharge System (including headers, tank, pumps and electrical)	2 (9/17/82) A (6/23/83)
	207050387	Convert 7 Wells used on 72" pipe repair to support SWPS dewatering. (Includes install new ejectors, temporary headers, operate, & maintain)	1(11/1/82) A (2/11/83)
	207050620	Activate, Operate and Maintain Dewatering System	1(9/17/82) A (5/27/83)
	200050005	SWPS Soils Stabilization	A (1/30/84)
		<u>ACCESS SHAFT & EXCAVATION</u>	
	207050781	Excavate, lag, brace and install wales and struts in upper east section of SWPS access shaft (soldier piles 14 thru 30 - maximum excavation to EL 618'-3" excluding localized excavation at pipe supports). ⁴	A (9/30/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	207050782	Excavate, lag, brace and install wales and struts in upper west section of SWPS access shaft (soldier Piles 1 thru 14 - maximum excavation to EL 624'-9" excluding localized excavation at pipe supports.) ⁴	A (9/30/83)
	207050783	Excavate lag, brace and install wales and struts, pour and cure concrete mudmat in lower east section of SWPS access shaft (soldier piles 15 thru 30 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	R
	207050784	Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower west section of SWPS access shaft (soldier piles 1 thru 14 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	R
		<u>BUILDING MONITORING</u>	
	206050105	Crack Map SWPS	1 (9/17/82) A (3/10/83)
	206050101	Install Permanent Benchmark Covers	1 (9/17/82) A (4/20/83)
	206050104	Baseline, Operate, and Maintain Instrument System	A (9/01/83)
		<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>	
		<u>OBS-4 Repair</u>	
	522550018	Dutch Cone Soil Testing in Vicinity of OBS-4 for exploratory purposes	A (07/28/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7370

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 and MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	812550010	<u>DIKE MAINTENANCE</u> Normal dike maintenance in Q areas	A (5/27/83)
	942450200	<u>MISCELLANEOUS</u> Remove (excavation) temporary uncontrolled fill located in Q areas (DWG C-45Q) as identified on NCRs and the OGSE action item logs, and backfill per Spec C-211Q	1 (7/5/83) A (9/27/83)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN APRIL 1, 1984 AND APRIL 30, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
		<u>BRACE/STRUT E10 & E11</u>	
	155055320	Install Brace/Strut E10 & E11	1(02/06/84)
		<u>BRACE/STRUT W10 & W11</u>	
	165055320	Install Brace/Strut W10 & W11	1(02/06/84)
		<u>PIER E15</u>	
	155052045	Drift to/access pit at Pier E15, excavate and install Pier E15.	R
		<u>PIER W15</u>	
	165052045	Drift to/access pit at Pier W15, excavate and install Pier W15.	R
		<u>LONG DRIFTS</u>	
	165052375	Complete Drift KC4 to CT1 ¹	R
	155052375	Complete Drift KC9 to CT12 ¹	R
		<u>PIER CT3</u>	
	165052080	Drift to, Excavate, Install & Load Pier CT3 ^{1,2,3}	
		<u>PIER CT10</u>	
	155052080	Drift to, Excavate, Install & Load Pier CT10 ^{1,2,3}	

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7370

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN APRIL 1, 1984 AND APRIL 30, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER E5</u>	
	155052060	Finger drift and demo modmat on Col 9 to J, excavate & install Pier E5 ^{1,2,3}	
		<u>PIER W5</u>	
	165052060	Finger drift and demo modmat on Col 4 to J, excavate & install Pier W5 ^{1,2,3}	
		<u>PIER KC5</u>	
	165052340	Finger drift to excavate, install & load Pier KC5 ^{1,2,3}	R
		<u>PIER KC8</u>	
	155052340	Finger drift to excavate, install & load Pier KC8 ^{1,2,3}	R

FOOTNOTES

- ¹ Drift Activity normally includes
 1. fabricate steel sets
 2. excavate
 3. install steel sets (Hilti bolts as necessary)
 4. remove concrete (as necessary)
 5. localized dewatering (as necessary)
 6. install wood lagging
 7. place mudmat
 8. stabilize soil (as necessary)
 9. brace and/or rebrace
 10. concrete invert
 11. slope layback

- ² Excavate Pier activity normally includes
 1. excavate
 2. concrete removal (as necessary)
 3. dewatering (as necessary)
 4. fabricate steel lagging
 5. install steel lagging
 6. auger bottom of pit to determine hydrostatic water pressure & plug (piers 10 & 12 E&W)
 7. place mudmat
 8. stabilize soil (as necessary)

- ³ Install & load Pier activity normally includes
 1. fab & install embeds
 2. fab & install reinforcing steel
 3. install telltales
 4. install Carlson meters (pier 11 E&W)
 5. place concrete
 6. fab & install leveling & bearing plates, jackstands
 7. install jacks
 8. transfer load

- ⁴ Excavate Access Shaft Activity Normally Includes:
 1. excavate
 2. fabricate and install steel lagging
 3. fabricate and install structural steel supports and bracing
 4. place mudmat
 5. stabilize soil (as necessary)
 6. localized dewatering (as necessary)
 7. support and protect utilities

- ⁵ Maintaining and Monitor Loading of Piers & Grillages
This one activity is to eliminate the numerous activities used for maintaining loads of installed piers and grillages

NOTES

A single asterisk (*) in left hand column indicates the work activity is a new item.

A double asterisk (***) in left hand column indicates the work activity description has been revised.

Designation 1 in the right hand column indicates additional information is required by NRC Region III on this critical activity.

Designation 2 in the right hand column indicates no additional information is required by NRC Region III on this critical activity.

Designation 3 in the right hand column indicates that the activity is not critical and work can proceed.

The date shown after the designation corresponds to the date of the NRC letter that provided the designation.

An "A" following the designation indicates that Region III has provided approval to proceed with the activity. The date following the "A" corresponds with the date of the NRC letter that provides authorization to proceed with the work activity.

A "R" in the right hand column indicates that previous designation or approval has been rescinded because of a significant revision to the work activity or 90 days has elapsed or is expected to elapse since the work was authorized without the work being initiated.



**Consumers
Power
Company**

Dean L. Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF		
RA	<i>has</i>	DPRP
S/RA		DE
A/RA		DR/SP
RC		DR/IA
PAO		SCS <input checked="" type="checkbox"/>
SGA		ML
ENF		File <i>has</i>

orig + 3

February 14, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7329
12*32

We have reviewed the following activity and request your authorization to proceed in accordance with the Work Authorization Procedure:

102950125 - Install vertical movement monitoring instruments in control tower wall.

Dean L. Quamme

DLQ/AEB/klw

FEB 24 1984

5402280181



**Consumers
Power
Company**

Dean L. Quamme
Site Manager
Midland Project

Midland Project. PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF	
✓	DES
	SCS
	ML
	File

sig. + 3

January 31, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER CWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7210
12*32

We are enclosing the proposed list of work in accordance with the "NRC and CCo Work Authorization Procedure" for the period between February 1, 1984 and February 29, 1984. Please review this work list and authorize the specific work items as established in the procedure.

Also enclosed is a Supplemental Work Activity List for March, 1984. Your review, comments and authorization of the specific work items as in accordance with the procedure are similarly requested.

Dean L. Quamme

DLQ/AEB/klw

Attachments

840228431

FEB 3 1984

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>GENERAL</u>			
<u>QUALITY PROGRAM</u>			
102351100	Approval of MPQP-2, Rev 1		A (10/22/82)
102351125	Approval of MPQP-1, Rev 7		A (9/27/83)
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
<u>WEST FIVP</u>			
102150010	Install Anchor Bolts & Rods (includes hardness test on rods, drill concrete & steel and tensioning)		1 (8/12/82) A (8/13/82)
<u>EAST FIVP</u>			
112150010	Install Anchor Bolts & Rods (includes hardness tests on rods, drill concrete & steel, and tension)		1 (8/12/82) A (8/13/82)
<u>BUILDING MONITORING</u>			
102050130	Rework Instrument Conduit and Cable for EX2 and EX3 per Disposition on NCRs S-00561 and S-00563		A (1/30/84)
102050120	Rework Conduit and Cables DMD5-E per Disposition of NCR FSO-322		A (1/30/84)
136050043	Maintain Instrument System		3 (8/12/82) A (8/12/82)
132550050	Install, wire conduit and raceway from pier to data room for Pier Instrumentation		2(12/13/82) A(12/13/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7219

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165052021	Terminate Cables in Data Room & Terminal Boxes & Pier Instrumentation	A (3/10/83)
	146050000	Maintain and monitor jacking load on installed piers and grillages ⁵	A (01/30/84)
		<u>GENERAL TEMPORARY DEWATERING</u>	
	125150050	Continue Monitoring Utility Protection Pits (4)	3 (8/12/82) A (8/12/82)
	115150020	Continue Operation of Freeze System & Wells	3 (8/12/82) A (8/12/82)
	522550020	Repair Six (6) Existing Observation Wells (WB-1, WP-2, COE-10, PD-18, W-2, PD-38)	1 (4/5/83) A (9/23/83)
	115150026	Remove 36" Casing and Backfill 42" Hole	1 (9/17/82) A (9/27/83)
	102550135	Install piezometers BB1 & BB2 in Auxiliary Building Control Tower	A (7/28/83)
		<u>CRACK MAPPING</u> (includes scaffolding platforms, ladders and extra-ordinary clean up)	
*	142550000	Prep of Aux bldg roof as required for crack survey.	A (1/11/84)
*	142550100	Remove concrete surface as required for crack measurements.	A (1/24/84)
	102250200	EPA (East & West)	3 (8/12/82) A (8/12/82)
	102250105	FIVP (East & West)	3 (8/12/82) A (8/12/82)
	102250100	Control Tower & Remainder of Aux Bldg	3 (8/12/82) A (8/12/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7219

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER E13</u>	
	155053040	Excavate Pier E13 ²	A (08/29/83)
	155054035	Install Pier E13	A (01/04/84)
		<u>PIER W13</u>	
	165053040	Excavate Pier W13 ²	A (08/29/83)
	165054035	Install Pier W13	A (01/04/84)
		<u>PIER KC4</u>	
	155052032	Finger Drift to KC4 ¹	A (01/20/84)
	155053315	Excavate Pier KC4 ²	A (01/20/84)
	155054310	Install & Load Pier KC4 ³	A (01/20/84)
		<u>PIER KC9</u>	
	165052032	Finger Drift to KC9 ¹	A (01/20/84)
	165053315	Excavate Pier KC9 ²	A (01/20/84)
	165054310	Install & Load Pier KC9 ³	A (01/20/84)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7219

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>LEVEL C WALES</u>	
	165055305	Install Level C Wales, West Side	A (08/29/83)
	155055305	Install Level C Wales, East Side	A (08/29/83)
		<u>DOWELS AT FIVP</u>	
	155050325	Install dowels at east FIVP	
	165050325	Install dowels at west FIVP	
		<u>PIER CT12</u>	
	155052035	Drift to CT12 from UAT ¹	A (09/30/83)
	155053050	Excavate Pier CT12 ²	A (01/04/84)
	155054045	Install & Load Pier CT12 ³	A (01/20/84) Install Only
		<u>PIER CT1</u>	
	165052035	Drift to CT1 from UAT ¹	A (09/30/83)
	165053050	Excavate Pier CT1 ²	A (01/04/84)
	165054045	Install & Load Pier CT1 ³	A (01/20/84) Install Only

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7219

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>LONG DRIFTS</u>	
	155052030	Drift to KC3 from KC2 ¹	A (07/28/83)
	155052320	Drift From KC3 to 13ft East of KC4 ¹	A (09/23/83)
	165052320	Drift From KC10 to 9ft West of KC9 ¹	A (09/23/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>POST TENSIONING SYSTEM</u>	
	202555170	Post Tensioning Tendon inspection & maintenance	3(12/7/82) A (12/7/82)
		<u>DEWATERING</u>	
	207050605	Install Remaining Ejector Wells	A (6/23/83)
	207050646	Continuing Monitoring & Repair of the CWIS-SWPS Hydraulic Seal	A (9/27/83)
	207050600	Install Piezometers	A (6/23/83)
	207050635	Install Dewatering Discharge System (including headers, tank, pumps and electrical)	2 (9/17/82) A (6/23/83)
	207050387	Convert 7 Wells used on 72" pipe repair to support SWPS dewatering. (Includes install new ejectors, temporary headers, operate, & maintain)	1(11/1/82) A (2/11/83)
	207050620	Activate, Operate and Maintain Dewatering System	1(9/17/82) A (5/27/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7219

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>Modify Pipe Supports</u>	
	202550164	SWPS - Modify pipe supports to allow for design load (30" OHBC 34, 20 & 16)	A (5/27/83)
*	200050005	SWPS Soils Stabilization	A (1/30/84)
		<u>ACCESS SHAFT & EXCAVATION</u>	
	207050781	Excavate, lag, brace and install wales and struts in upper east section of SWPS access shaft (soldier piles 14 thru 30 - maximum excavation to EL 618'-3" excluding localized excavation at pipe supports). ⁴	A (9/30/83)
	207050752	Excavate, lag, brace and install wales and struts in upper west section of SWPS access shaft (soldier Piles 1 thru 14 - maximum excavation to EL 624'-9" excluding localized excavation at pipe supports.) ⁴	A (9/30/83)
	207050783	Excavate lag, brace and install wales and struts, pour and cure concrete mudmat in lower east section of SWPS access shaft (soldier piles 15 thru 30 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	R
	207050784	Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower west section of SWPS access shaft (soldier piles 1 thru 14 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	R

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 and FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>BUILDING MONITORING</u>	
	206050105	Crack Map SWPS	1 (9/17/82) A (3/10/83)
	206050101	Install Permanent Benchmark Covers	1 (9/17/82) A (4/20/)
	206050104	Baseline, Operate, and Maintain Instrument System	A (9/01/83)
		<u>DUCTBANK PENETRATION</u>	
	852450105	SWPS - Provide Ducktbank Penetration in SWPS Wall and install pull box.	1(11/16/83)
<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>			
		<u>OBS-4 Repair</u>	
	522550018	Dutch Cone Soil Testing in Vicinity of OBS-4 for exploratory purposes	A (07/28/83)
		<u>DIKE MAINTENANCE</u>	
	812550010	Normal dike maintenance in Q areas	A (5/27/)
		<u>MISCELLANEOUS</u>	
	942450200	Remove (excavation) temporary uncontrolled fill located in Q areas (DWG C-45Q) as identified on NCRs and the OGSE action item logs, and backfill per Spec C-211Q	1 (7/5/83) A (9/27/83)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 AND MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
<u>BRACE/STRUT E10 & E11</u>			
155055320	Install Brace/Strut E10 & E11		
<u>BRACE/STRUT W10 & W11</u>			
165055320	Install Brace/Strut W10 & W11		
<u>EXCAVATION ZONES</u>			
155052070	Excavate/Lag Zone Y3		
165052070	Excavate/Lag Zone Z3		
<u>SUPPORT BRACKET</u>			
152555010	Install Temporary Support Bracket at E1		1(11/16/83)
162555010	Install Temporary Support Bracket at W1		1(11/16/83)
<u>PIER E16</u>			
155052055	Access pit at Pier E16. Excavate, install and load Pier E16.		A (01/20/84)
<u>PIER W16</u>			
165052055	Access pit at Pier W16. Excavate, install and load Pier W16.		A (01/20/84)
<u>PIER E17</u>			
155052075	Drift to Pier E17 from E16. Excavate, install and load Pier E17.		A (01/20/84)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7219

2

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN MARCH 1, 1984 AND MARCH 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

<u>NEW OR REVISED ITEMS</u>	<u>ACTIVITY IDENTIFIER</u>	<u>PROGRAM, WORK AREA & ACTIVITY</u>	<u>PREVIOUS REGION III DESIGNATION</u>
		<u>PIER W17</u>	
165052075		Drift to Pier W17 from W16. Excavate, install and load Pier W17.	A (01/20)

FOOTNOTES

- ¹ Drift Activity normally includes
 1. fabricate steel sets
 2. excavate
 3. install steel sets (Hilti bolts as necessary)
 4. remove concrete (as necessary)
 5. localized dewatering (as necessary)
 6. install wood lagging
 7. place mudmat
 8. stabilize soil (as necessary)
 9. brace and/or rebrace
 10. concrete invert
 11. slope layback

- ² Excavate Pier activity normally includes
 1. excavate
 2. concrete removal (as necessary)
 3. dewatering (as necessary)
 4. fabricate steel lagging
 5. install steel lagging
 6. auger bottom of pit to determine hydrostatic water pressure & plug (piers 10 & 12 E&W)
 7. place mudmat
 8. stabilize soil (as necessary)

- ³ Install & load Pier activity normally includes
 1. fab & install embeds
 2. fab & install reinforcing steel
 3. install telltales
 4. install Carlson meters (pier 11 E&W)
 5. place concrete
 6. fab & install leveling & bearing plates, jackstands
 7. install jacks
 8. transfer load
 9. (This item has been replaced by footnote 5)

- ⁴ Excavate Access Shaft Activity Normally Includes:
 1. excavate
 2. fabricate and install steel lagging
 3. fabricate and install structural steel supports and bracing
 4. place mudmat
 5. stabilize soil (as necessary)
 6. localized dewatering (as necessary)
 7. support and protect utilities

- ⁵ Maintaining and Monitor Loading of Piers & Grillages
This one activity is to eliminate the numerous activities used for maintaining loads of installed piers and grillages

NOTES

A single asterisk (*) in left hand column indicates the work activity is a new item.

A double asterisk (**) in left hand column indicates the work activity description has been revised.

Designation 1 in the right hand column indicates additional information is required by NRC Region III on this critical activity.

Designation 2 in the right hand column indicates no additional information is required by NRC Region III on this critical activity.

Designation 3 in the right hand column indicates that the activity is not critical and work can proceed.

The date shown after the designation corresponds to the date of the NRC letter that provided the designation.

An "A" following the designation indicates that Region III has provided approval to proceed with the activity. The date following the "A" corresponds with the date of the NRC letter that provides authorization to proceed with the work activity.

A "R" in the right hand column indicates that previous designation or approval has been rescinded because of a significant revision to the work activity or 90 days has elapsed or is expected to elapse since the work was authorized without the work being initiated.



**Consumers
Power
Company**

Dean L Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 - (517) 631-8650

PRINCIPAL STAFF		
RA	DE	PPRP
D/RA	DE	
A/RA	DRMSP	
RC	DRMA	
PAO	SCS	✓ Quamme +3
SGA	ML	
ENF	File	✓

January 26, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7232
12*32

We have reviewed the following activity and request your authorization to proceed in accordance with the Work Authorization Procedure:

200050005 - SWPS - Soil Stabilization

DLQ/AEB/klw

5402030331

JAN 30 1984



**Consumers
Power
Company**

Dean L Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF	
✓ RA	DPRP
D/RA	DE
W/RA	DRMSF
RC	DRMA
PAO	SCS ✓
DGA	ML
ETIE	File

orig 3

January 20, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7206
12*32

We have reviewed the following activity and request your authorization to proceed in accordance with the Work Authorization Procedure:

142550100 - Remove concrete surface as required for crack measurements

DLQ/AEB/klw

JAN 25 1984

~~8401270194~~



**Consumers
Power
Company**

Dean L. Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

January 19, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

PRINCIPAL STAFF			
✓ RA		DPRP	
D/RA		DE	
A/RA		DRMSP	
RC		DRMA	
PAO		SCS	orig + 3
SGA		ML	
ENF		File	

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7197
12*32

Several activities listed below have passed the 90 day authorization limit. In accordance with the Work Authorization Procedure, we are requesting the re-authorization of these activities:

- 155052032 Finger drift to KC4
- 155053315 Excavate Pier KC4
- 155054310 Install and load Pier KC4
- 165052032 Finger drift to KC9
- 165053315 Excavate Pier KC9
- 165054310 Install and load Pier KC9
- 155052055 Access pit at Pier E16. Excavate, install and load Pier E16.
- 165052055 Access pit at Pier W16. Excavate, install and load Pier W16.
- 155052075 Drift to Pier E17 from E16. Excavate, install and load Pier E17.
- 165052075 Drift to Pier W17 from W16. Excavate, install and load Pier W17.

Also, the following two activities will pass the 90 day authorization limit on 1/24/84. Therefore we are requesting the re-authorization of these activities:

- 155054045 (Install only) Pier CT12
- 165054045 (Install only) Pier CT1

Dean L. Quamme

DLQ/AEB/klw

JAN 25 1984

8401270367



**Consumers
Power
Company**

J A Mooney
Executive Manager
Midland Project Office

General Offices: 1945 West Farnall Road, Jackson, MI 49201 • (517) 782-0774

PRINCIPAL STAFF	
✓ RA	DPRP
D/RA	DE
A/RA	DRMSP
✓ RC	DRMA
PAO	SCS ✓
SGA	ML
ENF	File

orig T 3

January 11, 1984

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7148
12*32

We have reviewed the following activity and request your authorization to proceed in accordance with the Work Authorization Procedure:

142550000 Preparation of Auxiliary Building roof as required for crack survey

J Mooney

JAM/AEB/klw

8741190329

JAN 16 1984



**Consumers
Power
Company**

Dean L. Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

December 29, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

PRINCIPAL STAFF		
✓ A	has	DRP
D/RA		DE
A/RA		CR/SP
EC		DR/A
FAO		SCS
SGA		ML
ENF		File has

✓ oug+3

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04, 12*32 Serial: CSC-7107

We are enclosing the proposed list of work in accordance with the "NRC and CCo Work Authorization Procedure" for the period between January 1, 1984 and January 31, 1984. Please review this work list and authorize the specific work items as established in the procedure.

Also enclosed is a Supplemental Work Activity List for February 1984. Your review, comments and authorization of the specific work items as in accordance with the procedure are similarly requested.

DLQ/AEB/sc

Attachments

JAN 5 1984

844 1100399

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>GENERAL</u>			
<u>QUALITY PROGRAM</u>			
102351100	Approval of MPQP-2, Rev 1		A (10/22/82)
102351125	Approval of MPQP-1, Rev 7		A (9/27/83)
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
<u>WEST FIVP</u>			
102150010	Install Anchor Bolts & Rods (includes hardness test on rods, drill concrete & steel and tensioning)		1 (8/12/82) A (8/13/82)
<u>EAST FIVP</u>			
112150010	Install Anchor Bolts & Rods (includes hardness tests on rods, drill concrete & steel, and tension)		1 (8/12/82) A (8/13/82)
<u>BUILDING MONITORING</u>			
102050130	Rework Instrument Conduit and Cable for EX2 and EX3 per Disposition on NCRs S-00561 and S-00563		
102050120	Rework Conduit and Cables DMD5-E per Disposition of NCR FSO-322		
136050043	Maintain Instrument System		3 (8/12/82) A (8/12/82)
132550050	Install, wire conduit and raceway from pier to data room for Pier Instrumentation		2(12/13/82) A(12/13/82)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165052021	Terminate Cables in Data Room & Terminal Boxes & Pier Instrumentation	A (3/10/83)
*	146050000	Maintain and monitor jacking load on installed piers and grillages	
		<u>GENERAL TEMPORARY DEWATERING</u>	
	125150050	Continue Monitoring Utility Protection Pits (4)	3 (8/12/82) A (8/12/82)
	115150020	Continue Operation of Freeze System & Wells	3 (8/12/82) A (8/12/82)
	522550020	Repair Six (6) Existing Observation Wells (WB-1, WP-2, COE-10, PD-18, W-2, PD-38)	1 (4/5/83) A (9/23/83)
	115150026	Remove 36" Casing and Backfill 42" Hole	1 (9/17/82) A (9/27/83)
	102550135	Install piezometers BB1 & BB2 in Auxiliary Building Control Tower	A (7/28/83)
		<u>CRACK MAPPING</u> (includes scaffolding platforms, ladders and extra-ordinary clean up)	
	102250200	EPA (East & West)	3 (8/12/82) A (8/12/82)
	102250105	FIVP (East & West)	3 (8/12/82) A (8/12/82)
	102250100	Control Tower & Remainder of Aux Bldg	3 (8/12/82) A (8/12/82)
		<u>PIER 12W</u>	
	165054010	Install & Load Pier 12W ³	1 (8/12/82) A (12/9/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7107

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165054015	<u>PIER 11W</u> Install & Load Pier 11W ³ (includes install bituminous plywood forms)	1 (8/25/82) A (2/22/83)
	165054005	<u>PIER 9W</u> Install & Load Pier 9W ³	1 (9/17/82) A (2/24/83)
	155054010	<u>PIER 12E</u> Install & Load Pier 12E ³	1 (8/12/82) A (12/9/82)
	155054015	<u>PIER 11E</u> Install & Load Pier 11E ³	1 (8/25/82) A (2/22/83)
	155054005	<u>PIER 9E</u> Install & Load Pier 9E ³	1 (9/17/82) A (2/24/83)
	155054020	<u>PIER 8E</u> Install & Load Pier 8E ³	1 (9/17/82) A (5/3/83)
	155055010	<u>GRILLAGE STRUCTURE AT PIER 8E</u> Install & Load Grillage Structure at Pier 8E	1 (9/17/82) A (6/20/83)
	165054020	<u>PIER 8W</u> Install & Load Pier 8W ³	1 (9/17/82) A (5/3/83)
	165055C10	<u>GRILLAGE STRUCTURE AT PIER 8W</u> Install & Load Grillage Structure at Pier 8W	1 (9/17/82) A (6/20/83)
	165054030	<u>PIER W10</u> Install & Load Pier 10W ³	1 (4/5/83) A (5/3/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	155054030	<u>PIER E10</u> Install & Load Pier 10E ³	1 (4/5/83) A (5/3/83)
	165054315	<u>PIER KC2</u> Install & Load Pier KC2 ³	1 (9/17/82) A (4/22/83)
	155054315	<u>PIER KC11</u> Install & Load Pier KC11 ³	1 (9/17/82) A (4/22/83)
	165054305	<u>PIER KC3</u> Install & Load KC3 ³	A (07/28/83)
	155054305	<u>PIER KC10</u> Install & Load KC10 ³	A (07/28/83)
	155053040	<u>PIER E13</u> Excavate Pier E13 ²	A (08/29/83)
	155054035	Install Pier E13	R
	165053040	<u>PIER W13</u> Excavate Pier W13 ²	A (08/29/83)
	165054035	Install Pier W13	R
	155052032	<u>PIER KC4</u> Finger Drift to KC4 ¹	R

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7107

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	155053315	Excavate Pier KC4 ²	R
	155054310	Install & Load Pier KC4 ³	R
		<u>PIER KC9</u>	
	165052032	Finger Drift to KC9 ¹	R
	165053315	Excavate Pier KC9 ²	R
	165054310	Install & Load Pier KC9 ³	R
		<u>LEVEL C WALES</u>	
	165055305	Install Level C Wales, West Side	A (08/29/83)
	155055305	Install Level C Wales, East Side	A (08/29/83)
		<u>DOWELS AT FIVP</u>	
	155050325	Install dowels at east FIVP	
	165050325	Install dowels at west FIVP	
		<u>PIER CT12</u>	
	155052035	Drift to CT12 from UAT ¹	A (9/30/83)
	155053050	Excavate Pier CT12 ²	R
	155054045	Install & Load Pier CT12 ³	A(10/26/83) Install Only

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7107

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER CT1</u>	
	165052035	Drift to CT1 from UAT ¹	A (9/30/83)
	165053050	Excavate Pier CT1 ²	R
	165054045	Install & Load Pier CT1 ³	A(10/26/83) Install Only
		<u>LONG DRIFTS</u>	
	155052030	Drift to KC3 from KC2 ¹	A (07/28/83)
	155052320	Drift From KC3 to 13ft East of KC4 ¹	A (09/23/83)
	165052320	Drift From KC10 to 9ft West of KC9 ¹	A (09/23/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>POST TENSIONING SYSTEM</u>	
	202555170	Post Tensioning Tendon inspection & maintenance	3(12/7/82) A (12/7/82)
		<u>DEWATERING</u>	
	207050605	Install Remaining Ejector Wells	A (6/23/83)
	207050646	Continuing Monitoring & Repair of the CWIS-SWPS Hydraulic Seal	A (9/27/83)
	207050600	Install Piezometers	A (6/23/83)
	207050635	Install Dewatering Discharge System (including headers, tank, pumps and electrical)	2 (9/17/82) A (6/23/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	207050387	Convert 7 Wells used on 72" pipe repair to support SWPS dewatering. (Includes install new ejectors, temporary headers, operate, & maintain)	1(11/1/82) A (2/11/83)
	207050620	Activate, Operate and Maintain Dewatering System	1(9/17/82) A (5/27/83)
	202550164	<u>Modify Pipe Supports</u> SWPS - Modify pipe supports to allow for design load (30" OHBC 34, 20 & 16)	A (5/27/83)
	207050781	<u>ACCESS SHAFT & EXCAVATION</u> Excavate, lag, brace and install wales and struts in upper east section of SWPS access shaft (soldier piles 14 thru 30 - maximum excavation to EL 618'-3" excluding localized excavation at pipe supports). ⁴	A (9/30/83)
	207050782	Excavate, lag, brace and install wales and struts in upper west section of SWPS access shaft (soldier Piles 1 thru 14 - maximum excavation to EL 624'-9" excluding localized excavation at pipe supports.) ⁴	A (9/30/83)
	207050783	Excavate lag, brace and install wales and struts, pour and cure concrete mudmat in lower east section of SWPS access shaft (soldier piles 15 thru 30 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	1 (7/5/83) A (10/19/83)
	207050784	Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower west section of SWPS access shaft (soldier piles 1 thru 14 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	1 (7/5/83) A (10/19/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7107

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 and JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>BUILDING MONITORING</u>	
	206050105	Crack Map SWPS	1 (9/17/82) A (3/10/83)
	206050101	Install Permanent Benchmark Covers	1 (9/17/82) A (4/20/83)
	206050104	Baseline, Operate, and Maintain Instrument System	A (9/01/83)
		<u>DUCTBANK PENETRATION</u>	
	852450105	SWPS - Provide Ducktbank Penetration in SWPS Wall and install pull box.	1(11/16/83)
		<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>	
		<u>OBS-4 Repair</u>	
	522550018	Dutch Cone Soil Testing in Vicinity of OBS-4 for exploratory purposes	A (07/28/83)
		<u>DIKE MAINTENANCE</u>	
	812550010	Normal dike maintenance in Q areas	A (5/27/83)
		<u>MISCELLANEOUS</u>	
	942450200	Remove (excavation) temporary uncontrolled fill located in Q areas (DWG C-45Q) as identified on NCRs and the OGSE action item logs, and backfill per Spec C-211Q	1 (7/5/83) A (9/27/83)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 AND FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
<u>BRACE/STRUT E10 & E11</u>			
	155055320	Install Brace/Strut E10 & E11	
<u>BRACE/STRUT W10 & W11</u>			
	165055320	Install Brace/Strut W10 & W11	
<u>EXCAVATION ZONES</u>			
	155052070	Excavate/Lag Zone Y3	
	165052070	Excavate/Lag Zone Z3	
<u>SUPPORT BRACKET</u>			
	152555010	Install Temporary Support Bracket at E1	1(11/16/83)
	162555010	Install Temporary Support Bracket at W1	1(11/16/83)
<u>PIER E16</u>			
	155052055	Access pit at Pier E16. Excavate, install and load Pier E16.	A (10/19/83)
<u>PIER W16</u>			
	165052055	Access pit at Pier W16. Excavate, install and load Pier W16.	A (10/19/83)
<u>PIER E17</u>			
	155052075	Drift to Pier E17 from E16. Excavate, install and load Pier E17.	A (10/19/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-7107

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN FEBRUARY 1, 1984 AND FEBRUARY 29, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

<u>NEW OR REVISED ITEMS</u>	<u>ACTIVITY IDENTIFIER</u>	<u>PROGRAM, WORK AREA & ACTIVITY</u>	<u>PREVIOUS REGION III DESIGNATION</u>
		<u>PIER W17</u>	
165052075		Drift to Pier W17 from W16. Excavate, install and load Pier W17.	A (10/19/83)

FOOTNOTES

¹ Drift Activity normally includes

1. fabricate steel sets
2. excavate
3. install steel sets (Hilti bolts as necessary)
4. remove concrete (as necessary)
5. localized dewatering (as necessary)
6. install wood lagging
7. place mudmat
8. stabilize soil (as necessary)
9. brace and/or rebrace
10. concrete invert
11. slope layback

² Excavate Pier activity normally includes

1. excavate
2. concrete removal (as necessary)
3. dewatering (as necessary)
4. fabricate steel lagging
5. install steel lagging
6. auger bottom of pit to determine hydrostatic water pressure & plug (piers 10 & 12 E&W)
7. place mudmat
8. stabilize soil (as necessary)

³ Install & load Pier activity normally includes

1. fab & install embeds
2. fab & install reinforcing steel
3. install telltales
4. install Carlson meters (pier 11 E&W)
5. place concrete
6. fab & install leveling & bearing plates, jackstands
7. install jacks
8. transfer load.
9. monitor and adjust pier jacks after load transfer

⁴ Excavate Access Shaft Activity Normally Includes:

1. excavate
2. fabricate and install steel lagging
3. fabricate and install structural steel supports and bracing
4. place mudmat
5. stabilize soil (as necessary)
6. localized dewatering (as necessary)
7. support and protect utilities

NOTES

A single asterisk (*) in left hand column indicates the work activity is a new item.

A double asterisk (***) in left hand column indicates the work activity description has been revised.

Designation 1 in the right hand column indicates additional information is required by NRC Region III on this critical activity.

Designation 2 in the right hand column indicates no additional information is required by NRC Region III on this critical activity.

Designation 3 in the right hand column indicates that the activity is not critical and work can proceed.

The date shown after the designation corresponds to the date of the NRC letter that provided the designation.

An "A" following the designation indicates that Region III has provided approval to proceed with the activity. The date following the "A" corresponds with the date of the NRC letter that provides authorization to proceed with the work activity.

A "R" in the right hand column indicates that previous designation or approval has been rescinded because of a significant revision to the work activity or 90 days has elapsed or is expected to elapse since the work was authorized without the work being initiated.



**Consumers
Power
Company**

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0774

J A Mooney
Executive Manager
Midland Project Office

November 8, 1983

PRINCIPAL STAFF			
✓ RA	Plan	DPRP	
RA		DE	
RA/RA		DRMSP	
✓ RC	Ins	DRMA	
PAO		SCS	
RA		ML	
		File	ins

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6987
12*32

We have reviewed the work packages for the following activities. In accordance with the Work Authorization Procedure, we request your concurrence to perform the work:

- 102050130 Rework instrument conduit and cable for EX2 and EX3 per dispositions on NCR's S-00561 and S-00563
- 102050120 Rework conduit and cables DMD5-E per disposition of NCR FSO-322

J. Mooney
JAM/GMM/klm

83112L0215



**Consumers
Power
Company**

Dean L. Quamme
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF	
RA*	DRP*
D/R/	DE
A/R/	DR
PC	DR
F/D	SC
L	ML
ENF	FI

right 3

December 22, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7111
12*32

The two activities listed below will pass the 90 day authorization limit on 12/29/83. In accordance with the Work Authorization Procedure, we are requesting the re-authorization of these activities:

- 165053050 - Excavate Pier CT1
- 155053050 - Excavate Pier CT12

DLQ/AEB/klw

DEC 30 1983

8401050377

sent to DM13 12/7/83



**Consumers
Power
Company**

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0774

J A Mooney
Executive Manager
Midland Project Office

PRINCIPAL STAFF	
QA	DPRP
D/RA	DE
A/RA	DRMSP
RC	DRMA
PAO	SQS
SGA	ML
ENF	File

December 2, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7046
12*32

Two activity authorizations have passed the 90 day expiration limit.
In accordance with the Work Authorization Procedure, we request re-authorization of the following activities:

155054035	Install Pier E13
165054035	Install Pier W13

J Mooney
JAM/AEB/klw

83-2120249

DEC 7 1983

x mt to DMB 12/5/83



J A Mooney
Executive Manager
Midland Project Office

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0774

November 30, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-7032
12*32

We are enclosing the proposed list of work in accordance with the "NRC and CPCo Work Authorization Procedure" for the period between December 1, 1983 and December 31, 1983. Please review this work list and authorize the specific work items as established in the procedure.

Also enclosed is a Supplemental Work Activity List for January, 1984. Your review, comments and authorization of the specific work items as in accordance with the procedure are similarly requested.

JAM/AEB/klw

Attachments

DEC - 5 1983

~~831209448~~

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLR ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>GENERAL</u>	
		<u>QUALITY PROGRAM</u>	
	102351100	Approval of MPQP-2, Rev 1	A (10/23/83)
	102351125	Approval of MPQP-1, Rev 7	A (9/27/83)
		<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>	
		<u>WEST FIVP</u>	
	102150010	Install Anchor Bolts & Rods (includes hardness test on rods, drill concrete & steel and tensioning)	1 (8/12/82) A (8/13/82)
		<u>EAST FIVP</u>	
	112150010	Install Anchor Bolts & Rods (includes hardness tests on rods, drill concrete & steel, and tension)	1 (8/12/82) A (8/13/82)
		<u>BUILDING MONITORING</u>	
*	102050130	Rework Instrument Conduit and Cable for EX2 and EX3 per Disposition on NCRs S-00561 and S-00563	
*	102050120	Rework Conduit and Cables DMD5-E per Disposition of NCR F80-322	
	136050043	Maintain Instrument System	3 (8/12/82) A (8/12/82)
	132550050	Install, wire conduit and raceway from pier to data room for Pier Instrumentation	2(12/13/82) A(12/13/82)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
 DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165052021	Terminate Cables in Data Room & Terminal Boxes & Pier Instrumentation	A (3/10/83)
		<u>GENERAL TEMPORARY DEWATERING</u>	
	125150050	Continue Monitoring Utility Protection Pits (4)	3 (8/12/82) A (8/12/82)
	115150020	Continue Operation of Freeze System & Wells	3 (8/12/82) A (8/12/82)
	522550025	Excavate, Repair and Backfill Piezometer MP-2	1 (4/5/83)
	522550020	Repair Six (6) Existing Observation Wells (WB-1, WP-2, COE-10, PD-18, W-2, PD-38)	1 (4/5/83) A (9/24/83)
	125150052	Repair Ductbank (Pit 4) (includes excavate, drift, repair and backfill)	1 (8/25/82)
	115150026	Remove 36" Casing and Backfill 42" Hole	1 (9/17/82) A (9/27/82)
	115150025	Clean out and backfill abandoned ejector holes (ME26A, ME28A and ME54)	R
	102550135	Install piezometers BB1 & BB2 in Auxiliary Building Control Tower	A (7/28/83)
		<u>CRACK MAPPING</u> (includes scaffolding platforms, ladders and extra-ordinary clean up)	
	102250200	EPA (East & West)	3 (8/12/82) A (8/12/82)
	102250105	FIVP (East & West)	3 (8/12/82) A (8/12/82)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION 111 DESIGNATION
	102250100	Control Tower & Remainder of Aux Bldg	3 (8/12/82) A (8/12/82)
	165054010	<u>PIER 12W</u> Install & Load Pier 12W ³	1 (8/12/82) A (12/9/82)
	165054015	<u>PIER 11W</u> Install & Load Pier 11W ³ (includes install bituminous plywood forms)	1 (8/25/82) A (2/22/83)
	165054005	<u>PIER 9W</u> Install & Load Pier 9W ³	1 (9/17/82) A (2/24/83)
	155054010	<u>PIER 12E</u> Install & Load Pier 12E ³	1 (8/12/82) A (12/9/82)
	155054015	<u>PIER 11E</u> Install & Load Pier 11E ³	1 (8/25/82) A (2/22/83)
	155054005	<u>PIER 9E</u> Install & Load Pier 9E ³	1 (9/17/82) A (2/24/83)
	155054020	<u>PIER 8E</u> Install & Load Pier 8E ³	1 (9/17/82) A (5/1/83)
	155055010	<u>GRILLAGE STRUCTURE AT PIER 8E</u> Install & Load Grillage Structure at Pier 8E	1 (9/17/82) A (6/20/83)
	165054020	<u>PIER 8W</u> Install & Load Pier 8W ³	1 (9/17/82) A (5/1/83)
	165055010	<u>GRILLAGE STRUCTURE AT PIER 8W</u> Install & Load Grillage Structure at Pier 8W	1 (9/17/82) A (6/20/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION 111 DESIGNATION
	165054030	<u>PIER W10</u> Install & Load Pier 10W ³	1 (4/5/83) A (5/3/83)
	155054030	<u>PIER E10</u> Install & Load Pier 10E ³	1 (4/5/83) A (5/3/83)
	165054315	<u>PIER KC2</u> Install & Load Pier KC2 ³	1 (9/17/82) A (4/22/83)
	155054315	<u>PIER KC11</u> Install & Load Pier KC11 ³	1 (9/17/82) A (4/22/83)
	165054305	<u>PIER KC3</u> Install & Load KC3 ³	A (01/28/83)
	155054305	<u>PIER KC10</u> Install & Load KC10 ³	A (01/28/83)
	155053040	<u>PIER E13</u> Excavate Pier E13 ²	A (08/29/83)
	155054035	Install Pier E13	R
	165053040	<u>PIER W13</u> Excavate Pier W13 ²	A (08/29/83)
	165054035	Install Pier W13	R

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
 DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION 111 DESIGNATION
		<u>PIER KC4</u>	
	155052032	Finger Drift to KC4 ¹	A (9/23/83)
	155053315	Excavate Pier KC4 ²	A (9/23/83)
	155054310	Install & Load Pier KC4 ³	A (9/23/83)
		<u>PIER KC9</u>	
	165052032	Finger Drift to KC9 ¹	A (9/23/83)
	165053315	Excavate Pier KC9 ²	A (9/23/83)
	165054310	Install & Load Pier KC9 ³	A (9/23/83)
		<u>LEVEL C WALES</u>	
	165055305	Install Level C Wales, West Side	A (08/29/83)
	155055305	Install Level C Wales, East Side	A (08/29/83)
		<u>SUPPORT BRACKET</u>	
	152555010	Install Temporary Support Bracket at E1	1(11/16/83)
	162555010	Install Temporary Support Bracket at W1	1(11/16/83)
		<u>PIER CT12</u>	
	155052035	Drift to CT12 from UAT ¹	A (9/30/83)
	155053050	Excavate Pier CT12 ²	A (9/30/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	155054045	Install & Load Pier CT12 ³	A(10/26/83) Install Only
		<u>PIER CT1</u>	
	165052035	Drift to CT1 from UAT ¹	A (9/30/83)
	165053050	Excavate Pier CT1 ²	A (9/30/83)
	165054045	Install & Load Pier CT1 ³	A(10/26/83) Install Only
		<u>LONG DRIFTS</u>	
	155052030	Drift to KC3 from KC2 ¹	A (07/28/83)
	155052320	Drift From KC3' to 13ft East of KC4 ¹	A (09/23/83)
	165052320	Drift From KC10 to 9ft West of KC9 ¹	A (09/23/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>POST TENSIONING SYSTEM</u>	
	202555170	Post Tensioning Tendon inspection & maintenance	3(12/7/82) A (12/7/82)
		<u>DEWATERING</u>	
	207050605	Install Remaining Ejector Wells	A (6/23/83)
	207050646	Continuing Monitoring & Repair of the CWIS-SWPS Hydraulic Seal	A (9/27/83)
	207050600	Install Piezometers	A (6/23/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	207050635	Install Dewatering Discharge System (including headers, tank, pumps and electrical)	2 (9/17/82) A (6/23/83)
	207050387	Convert 7 Wells used on 72" pipe repair to support SWPS dewatering. (Includes install new ejectors, temporary headers, operate, & maintain)	1(11/1/82) A (2/11/83)
	207050620	Activate, Operate and Maintain Dewatering System	1(9/17/82) A (5/27/83)
	203150165	<u>Fill SWPS Chambers (Bays)</u> Fill SWPS Chambers with Water to El 622 (±5')	A (9/07/83)
	202550164	<u>Modify Pipe Supports</u> SWPS - Modify pipe supports to allow for design load (30" OHBC 34, 20 & 16)	A (5/27/83)
	207050781	<u>ACCESS SHAFT & EXCAVATION</u> Excavate, lag, brace and install wales and struts in upper east section of SWPS access shaft (soldier piles 14 thru 30 - maximum excavation to EL 618'-3" excluding localized excavation at pipe supports). ⁴	A (9/30/83)
	207050782	Excavate, lag, brace and install wales and struts in upper west section of SWPS access shaft (soldier Piles 1 thru 14 - maximum excavation to EL 624'-9" excluding localized excavation at pipe supports.) ⁴	A (9/30/83)
	207050783	Excavate lag, brace and install wales and struts, pour and cure concrete mudmat in lower east section of SWPS access shaft (soldier piles 15 thru 30 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	1 (7/5/83) A (10/19/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION 111 DESIGNATION
	207050784	Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower west section of SWPS access shaft (soldier piles 1 thru 14 - maximum excavation to EL 618'±6" excluding localized excavation). ⁴	1 (7/5/83) A (10/19/83)
		<u>BUILDING MONITORING</u>	
	206050105	Crack Map SWPS	1 (9/17/82) A (3/10/83)
	206050101	Install Permanent Benchmark Covers	1 (9/17/82) A (4/20/83)
	206050104	Baseline, Operate, and Maintain Instrument System	A (9/01/83)
		<u>DUCTBANK PENETRATION</u>	
	852450105	SWPS - Provide Ducktbank Penetration in SWPS Wall and install pull box.	1(11/16/83)
		<u>REBEDDING PHASE II</u>	
	400050100	Install Sheeted Pits Phase IIA	1(11/16/83)
		<u>BORATED WATER STORAGE TANK FOUNDATION & TANK REPAIR PROGRAM</u>	
		<u>UNIT 1 TANK</u>	
	312150011	Construct New Ring Beam (set forms & place rebar, pour concrete)	1 (8/12/82) A (7/8/83)
	312550019	Reinstall Electrical Ductbank	2 (9/17/82) A (4/6/83)
	312550018	Reinstall Piping, Pipe Hangers and Electrical Facilities	A (3/17/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>UNIT 2 TANK</u>	
	322150011	Construct New Ring Beam (set forms & place rebar, pour concrete)	1 (8/12/82) A (7/8/83)
	322550019	Reinstall Electrical Duct Bank	2 (9/17/82) A (4/6/83)
	322550018	Reinstall Piping, Pipe Hangers and Electrical Facilities	A (3/17/83)
	322150212	Repair Tank Weld Defect	R
	312150015	Relevel Tank-Unit 1	1 (9/17/82)
	312550100	Install Instruments (includes testing and calibration)	1 (11/1/82)
	322550100	Install Instruments (includes testing and calibration)	1 (11/1/82)
		<u>UNDERGROUND PIPE REPLACEMENT, REBEDDING, AND MONITORING PROGRAM</u>	
		<u>PHASE II PROBING & DEWATERING</u>	
	407050400	Shallow probing for Phase II (Ref DWG C-2031)	A (5/27/83)
	400050005	Deep Probing for Utilities Phase II	1(11/16/83)
	400050020	Installation of Phase II Dewatering Wells and Piezometers (if required)	1(11/16/83)
		<u>TRAIN B OF SERVICE WATER PIPE REPLACEMENT</u>	
	402550446	Excavate Existing Pipe	1 (8/12/82) A (9/07/83)
	402550550	Remove Existing Pipe	A (9/07/83)
			JEKostielney 11/29/83

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	402550560	Install new pipe & expansion coupling	A (9/07/83)
	402550561	Hydro Test new pipe	A (9/07/83)
	402550508	Perform Profiling & Ovality Check on New Piping	A (9/07/83)
	402550562	Temporary Backfill New Pipe	1 (4/5/83) A (9/07/83)
<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>			
<u>PERMANENT INTRUSION DETECTION SYSTEM</u>			
	732050002	Install Wire (incl conduit)	3 (8/25/82) A (8/25/82)
	732050003	Install Fence (incl fence posts & concrete strip)	3 (8/25/82) A (8/25/82)
	732050004	Install Grounding	3 (9/17/82) A (9/17/82)
<u>OBS-4 Repair</u>			
	522550018	Dutch Cone Soil Testing in Vicinity of OBS-4 for exploratory purposes	A (07/28/83)
<u>EMERGENCY PERSONNEL LOCKS - UNIT 2</u>			
	792550005	Excavate, rebar, pour concrete and backfill Airlock Structure	1 (9/17/82) A (10/11/82)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PERMANENT DEWATERING PROGRAM</u>	
	522150005	Install Remaining Wells	1 (9/17/82)
	522550016	Install electrical equipment & conduit	1 (9/17/82)
	522550021	Excavate, install and backfill header piping, electrical conduit, and pumps (including equipment slabs and metering pits)	1 (9/17/82)
	522550026	Assemble and wire pump control panels	A (9/23/83)
	522550014	Excavate Headers & Metering Pits, Install Header and Level Monitoring System, Install Pumps, Timers and Backfill	1(11/16/83)
		<u>DIESEL FUEL SUPPLY LINES</u>	
	722050001	Install missile shielding	1 (8/25/82)
	722050002	Excavate, remove, reinstall and backfill DFO supply lines	1 (11/1/82)
		<u>DIKE MAINTENANCE</u>	
	812550010	Normal dike maintenance in Q areas	A (5/27/83)
		<u>CONTROL ROOM PRESSURIZATION TANK SETTLEMENT MARKERS</u>	
	932450100	Excavate for, install and backfill Control Room pressurization tank settlement markers	1(11/16/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 and DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>MISCELLANEOUS</u>	
	942450200	Remove (excavation) temporary uncontrolled fill located in Q areas (DWG C-45Q) as identified on NCRs and the OGSE action item logs, and backfill per Spec C-211Q	1 (7/5/83) A (9/27/83)
	942450250	Locate 4" Borehole, East Side of Turbine Building	A (9/27/83)
		<u>CATHODIC PROTECTION</u>	
	752050001	Drill and replace annodes (as necessary)	1 (8/25/82) A (10/6/83)
	752050002	Drill and install new annodes	1 (11/1/82) A (10/6/83)
		<u>CONTAINMENT TENDON ACCESS VENT HVAC</u>	
	802550010	Excavate for, Install and Backfill Electrical Duct Bank and Equipment Pad for the Unit 1 HVAC Fan	1 (9/17/82)
	802550020	Excavate for, Install and Backfill Electrical Duct Bank and Equipment Pad for the Unit 2 HVAC Fan	1 (9/17/82)
		<u>NITROGEN TANK INSTALLATION</u>	
	782550005	Excavate for, install and backfill electrical duct bank	1 (9/17/82)
	782550010	Excavate for, install and backfill piping	1 (9/17/82)
	782550015	Excavate for, install and backfill concrete pad	1 (9/17/82)
	782550020	Excavate for, install and backfill nitrogen tanks and associated concrete structures	1 (9/17/82)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 AND JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
		<u>BRACE/STRUT E10 & E11</u>	
	155055320	Install Brace/Strut E10 & E11	
		<u>BRACE/STRUT W10 & W11</u>	
	165055320	Install Brace/Strut W10 & W11	
		<u>EXCAVATION ZONES</u>	
	155052070	Excavate/Lag Zone Y3	
	165052070	Excavate/Lag Zone Z3	
		<u>DOWELS AT FIVP</u>	
	155050325	Install dowels at east FIVP	
	165050325	Install dowels at west FIVP	
		<u>LONG DRIFTS</u>	
	165052375	Complete Drift KC4 to CT1 ¹	A (10/19/83)
	155052375	Complete Drift KC9 to CT12 ¹	A (10/19/83)
		<u>PIER CT3</u>	
	165052080	Drift To, Excavate, Install & Load Pier CT3 ^{1,2,3}	

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 AND JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER CT10</u>	
	155052080	Drift To, Excavate, Install & Load Pier CT10 ^{1,2,3}	
		<u>PIER E5</u>	
	155052060	Finger drift and demo mudmat on Col 9 to J, excavate & install Pier E5 ^{1,2,3}	
		<u>PIER W5</u>	
	165052060	Finger drift and demo mudmat on Col 4 to J, excavate & install Pier W5 ^{1,2,3}	
		<u>PIER E5 SUPPORT COLUMNS & GRILLAGE</u>	
	155055020	Excavate for & install support columns next to containment & install and load grillage structure at Pier E5. (Including Instrumentation)	
		<u>PIER W5 SUPPORT COLUMNS & GRILLAGE</u>	
	165055020	Excavate for & install support columns next to containment & install and load grillage structure at Pier W5. (Including Instrumentation)	
		<u>PIER KC5</u>	
	165052340	Finger drift to, excavate, install & load Pier KC5. ^{1,2,3}	A (10/19/84)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 AND JANUARY 31, 1984
 DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER KC8</u>	
155052340		Finger drift to, excavate, install & load Pier KC8. ^{1,2,3}	A (10/19/83)
		<u>PIER E15</u>	
155052045		Drift to/access pit at Pier E15, excavate and install Pier E15.	A (10/19/83)
		<u>PIER W15</u>	
165052045		Drift to/access pit at Pier W15, excavate and install Pier W15.	A (10/19/83)
		<u>PIER E16</u>	
155052055		Access pit at Pier E16. Excavate, install and load Pier E16.	A (10/19/83)
		<u>PIER W16</u>	
165052055		Access pit at Pier W16. Excavate, install and load Pier W16.	A (10/19/83)
		<u>PIER E17</u>	
155052075		Drift to Pier E17 from E16. Excavate, install and load Pier E17.	A (10/19/83)
		<u>PIER W17</u>	
165052075		Drift to Pier W17 from W16. Excavate, install and load Pier W17.	A (10/19/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
202550163		Remove abandoned fire protection pipeline (as necessary)	1 (11/1/82) A (5/27/83)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN JANUARY 1, 1984 AND JANUARY 31, 1984
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>REBEDDING PHASE II</u>	
	400050110	Install Soldier Beams Phase IIA	
	400050400	Install Sheeted Pits Phase IID	
	400050300	Install Sheeted Pits Phase IIC	
		<u>PIER 1</u>	
	207053005	Excavate, install and load Pier 1	
	207050005	Set up and perform plate load test Pier 1	
		<u>PIER 1A</u>	
	207053010	Excavate, install and load Pier 1A	
		<u>CONCRETE SWPS FLOOR TRENCH</u>	
	200054000	Concreting of SWPS North Floor Trench and core drilling of through anchor bolt holes.	
		<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>	
		<u>MISCELLANEOUS</u>	
	912450100	Repair Condensor Drain Line 2YBJ-8	

FOOTNOTES

¹ Drift Activity normally includes

1. fabricate steel sets
2. excavate
3. install steel sets (Hilti bolts as necessary)
4. remove concrete (as necessary)
5. localized dewatering (as necessary)
6. install wood lagging
7. place mudmat
8. stabilize soil (as necessary)
9. brace and/or rebrace
10. concrete invert
11. slope layback

² Excavate Pier activity normally includes

1. excavate
2. concrete removal (as necessary)
3. dewatering (as necessary)
4. fabricate steel lagging
5. install steel lagging
6. auger bottom of pit to determine hydrostatic water pressure & plug (piers 10 & 12 E&W)
7. place mudmat
8. stabilize soil (as necessary)

³ Install & load Pier activity normally includes

1. fab & install embeds
2. fab & install reinforcing steel
3. install telltales
4. install Carlson meters (pier 11 E&W)
5. place concrete
6. fab & install leveling & bearing plates, jackstands
7. install jacks
8. transfer load.
- *9. monitor and adjust pier jacks after load transfer

⁴ Excavate Access Shaft Activity Normally Includes:

1. excavate
2. fabricate and install steel lagging
3. fabricate and install structural steel supports and bracing
4. place mudmat
5. stabilize soil (as necessary)
6. localized dewatering (as necessary)
7. support and protect utilities

NOTES

A single asterisk (*) in left hand column indicates the work activity is a new item.

A double asterisk (**) in left hand column indicates the work activity description has been revised.

Designation 1 in the right hand column indicates additional information is required by NRC Region III on this critical activity.

Designation 2 in the right hand column indicates no additional information is required by NRC Region III on this critical activity.

Designation 3 in the right hand column indicates that the activity is not critical and work can proceed.

The date shown after the designation corresponds to the date of the NRC letter that provided the designation.

An "A" following the designation indicates that Region III has provided approval to proceed with the activity. The date following the "A" corresponds with the date of the NRC letter that provides authorization to proceed with the work activity.

A "R" in the right hand column indicates that previous designation or approval has been rescinded because of a significant revision to the work activity or 90 days has elapsed or is expected to elapse since the work was authorized without the work being initiated.

REMEDIAL SOILS WORK AUTHORIZATIONS

U. S. NUCLEAR REGULATORY COMMISSION
REGION III

SUBJECT

DATE

1/83



**Consumers
Power
Company**

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0774

~~① Watch~~
② File

J A Mooney
Executive Manager
Midland Project Office

October 31, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

PRINCIPAL STAFF			
✓ A	Law	PEP	
✓ V/R		PE	
✓ V/R		CPSC	
		US	
✓ S/A		PL	
✓ T		File	Law

✓ orig 3

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6967
12*32

We are enclosing the proposed list of work in accordance with the "NRC and CPGCo Work Authorization Procedure" for the period between November 1, 1983 and November 30, 1983. Please review this work list and authorize the specific work items as established in the procedure.

Also enclosed is a Supplemental Work Activity List for December, 1983. Your review, comments and authorization of the specific work items as in accordance with the procedure are similarly requested.

Activity #207050620 was inadvertently given an incorrect designation of "R" on the two previous reports. Refer to footnote number six for details.

JAMooney

JAM/AEB/klw

Attachments

NOV 4 1983

8311070366

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>GENERAL</u>	
		<u>QUALITY PROGRAM</u>	
	102351100	Approval of MPQP-2, Rev 1	A (10/22/82)
	102351125	Approval of MPQP-1, Rev 7	A (9/27/83)
		<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>	
*	145054000	Pit Method for Construction of Aux Bldg Perm Wall Underpinning (concept only)	
		<u>WEST FIVP</u>	
	102150010	Install Anchor Bolts & Rods (includes hardness test on rods, drill concrete & steel and tensioning)	1 (8/12/82) A (8/13/82)
		<u>EAST FIVP</u>	
	112150010	Install Anchor Bolts & Rods (includes hardness tests on rods, drill concrete & steel, and tension)	1 (8/12/82) A (8/13/82)
		<u>BUILDING MONITORING</u>	
	136050043	Maintain Instrument System	3 (8/12/82) A (8/12/82)
	132550050	Install, wire conduit and raceway from pier to data room for Pier Instrumentation	2(12/13/82) A(12/13/82)
	165052021	Terminate Cables in Data Room & Terminal Boxes & Pier Instrumentation	A (3/10/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>GENERAL TEMPORARY DEWATERING</u>	
	125150050	Continue Monitoring Utility Protection Pits (4)	3 (8/12/82) A (8/12/82)
	115150020	Continue Operation of Freeze System & Wells	3 (8/12/82) A (8/12/82)
	522550025	Excavate, Repair and Backfill Piezometer MP-2	1 (4/5/83)
	522550020	Repair Six (6) Existing Observation Wells (WB-1, WP-2, COE-10, PD-18, W-2, PD-38)	1 (4/5/83) A (9/23/83)
	125150052	Repair Ductbank (Pit 4) (includes excavate, drift, repair and backfill)	1 (8/25/82)
	115150026	Remove 36" Casing and Backfill 42" Hole	1 (9/17/82) A (9/27/83)
	115150025	Clean out and backfill abandoned ejector holes (ME26A, ME28A and ME54)	R
	102550135	Install piezometers BB1 & BB2 in Auxiliary Building Control Tower	A (7/28/83)
		<u>CRACK MAPPING</u> (includes scaffolding platforms, ladders and extra-ordinary clean up)	
	102250200	EPA (East & West)	3 (8/12/82) A (8/12/82)
	102250105	FIVP (East & West)	3 (8/12/82) A (8/12/82)
	102250100	Control Tower & Remainder of Aux Bldg	3 (8/12/82) A (8/12/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165054010	<u>PIER 12W</u> Install & Load Pier 12W ³	1 (8/12/82) A (12/9/82)
	165054015	<u>PIER 11W</u> Install & Load Pier 11W ³ (includes install bituminous plywood forms)	1 (8/25/82) A (2/22/83)
	165054005	<u>PIER 9W</u> Install & Load Pier 9W ³	1 (9/17/82) A (2/24/83)
	155054010	<u>PIER 12E</u> Install & Load Pier 12E ³	1 (8/12/82) A (12/9/82)
	155054015	<u>PIER 11E</u> Install & Load Pier 11E ³	1 (8/25/82) A (2/22/83)
	155054005	<u>PIER 9E</u> Install & Load Pier 9E ³	1 (9/17/82) A (2/24/83)
	155054020	<u>PIER 8E</u> Install & Load Pier 8E ³	1 (9/17/82) A (5/3/83)
	155055010	<u>GRILLAGE STRUCTURE AT PIER 8E</u> Install & Load Grillage Structure at Pier 8E	1 (9/17/82) A (6/20/83)
	165054020	<u>PIER 8W</u> Install & Load Pier 8W ³	1 (9/17/82) A (5/3/83)
	165055010	<u>GRILLAGE STRUCTURE AT PIER 8W</u> Install & Load Grillage Structure at Pier 8W	1 (9/17/82) A (6/20/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165054030	<u>PIER W10</u> Install & Load Pier 10W ³	1 (4/5/83) A (5/3/83)
	155054030	<u>PIER E10</u> Install & Load Pier 10E ³	1 (4/5/83) A (5/3/83)
	165054315	<u>PIER KC2</u> Install & Load Pier KC2 ³	1 (9/17/82) A (4/22/83)
	155054315	<u>PIER KC11</u> Install & Load Pier KC11 ³	1 (9/17/82) A (4/22/83)
	165054305	<u>PIER KC3</u> Install & Load KC3 ³	A (07/28/83)
	155054305	<u>PIER KC10</u> Install & Load KC10 ³	A (07/28/83)
	155053040	<u>PIER E13</u> Excavate Pier E13 ²	A (08/29/83)
	155054035	Install Pier E13	A (08/29/83)
	165053040	<u>PIER W13</u> Excavate Pier W13 ²	A (08/29/83)
	165054035	Install Pier W13	A (08/29/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY?	PREVIOUS REGION III DESIGNATION
		<u>PIER KC4</u>	
	155052032	Finger Drift to KC4 ¹	A (9/23/83)
	155053315	Excavate Pier KC4 ²	A (9/23/83)
	155054310	Install & Load Pier KC4 ³	A (9/23/83)
		<u>PIER KC9</u>	
	165052032	Finger Drift to KC9 ¹	A (9/23/83)
	165053315	Excavate Pier KC9 ²	A (9/23/83)
	165054310	Install & Load Pier KC9 ³	A (9/23/83)
		<u>LEVEL C WALES</u>	
	165055305	Install Level C Wales, West Side	A (08/29/83)
	155055305	Install Level C Wales, East Side	A (08/29/83)
		<u>SUPPORT BRACKET</u>	
	152555010	Install Temporary Support Bracket at E1	
	162555010	Install Temporary Support Bracket at W1	
		<u>PIER CT12</u>	
	155052035	Drift to CT12 from UAT ¹	A (9/30/83)
	155053050	Excavate Pier CT12 ²	A (9/30/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	155054045	Install & Load Pier CT12 ³	
		<u>PIER CT1</u>	
	165052035	Drift to CT1 from UAT ¹	A (9/30/83)
	165053050	Excavate Pier CT1 ²	A (9/30/83)
	165054045	Install & Load Pier CT1 ³	
		<u>LONG DRIFTS</u>	
	155052030	Drift to KC3 from KC2 ¹	A (07/28/83)
	155052320	Drift From KC3 to 13ft East of KC4 ¹	A (09/23/83)
	165052320	Drift From KC10 to 9ft West of KC9 ¹	A (09/23/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>POST TENSIONING SYSTEM</u>	
	202555170	Post Tensioning Tendon inspection & maintenance	3(12/7/82) A (12/7/82)
		<u>DEWATERING</u>	
	207050605	Install Remaining Ejector Wells	A (6/23/83)
	207050646	Continuing Monitoring & Repair of the CWIS-SWPS Hydraulic Seal	A (9/27/83)
	207050600	Install Piezometers	A (6/23/83)
	207050601	Install Four (4) Additional Piezometers	A (9/07/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	207050635	Install Dewatering Discharge System (including headers, tank, pumps and electrical)	2 (9/17/82) A (6/23/83)
	207050387	Convert 7 Wells used on 72" pipe repair to support SWPS dewatering. (Includes install new ejectors, temporary headers, operate, & maintain)	1(11/1/82) A (2/11/83)
	207050620	Activate, Operate and Maintain Dewatering System ⁶	1(9/17/82) A (5/27/83)
	203150165	<u>Fill SWPS Chambers (Bays)</u> Fill SWPS Chambers with Water to El 622 (±5')	A (9/07/83)
	202550164	<u>Modify Pipe Supports</u> SWPS - Modify pipe supports to allow for design load (30" OHBC 34, 20 & 16)	A (5/27/83)
	207050781	<u>ACCESS SHAFT & EXCAVATION</u> Excavate, lag, brace and install wales and struts in upper east section of SWPS access shaft (soldier piles 14 thru 30 - maximum excavation to EL 618'-3" excluding localized excavation at pipe supports). ⁵	A (9/30/83)
	207050782	Excavate, lag, brace and install wales and struts in upper west section of SWPS access shaft (soldier Piles 1 thru 14 - maximum excavation to EL 624'-9" excluding localized excavation at pipe supports.) ⁵	A (9/30/83)
	207050783	Excavate lag, brace and install wales and struts, pour and cure concrete mudmat in lower east section of SWPS access shaft (soldier piles 15 thru 30 - maximum excavation to EL 618'±6" excluding localized excavation). ⁵	1 (7/5/83) A (10/19/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	207050784	Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower west section of SWPS access shaft (soldier piles 1 thru 14 - maximum excavation to EL 618'±6" excluding localized excavation). ⁵	1 (7/5/83) A (10/19/83)
		<u>BUILDING MONITORING</u>	
	206050105	Crack Map SWPS	1 (9/17/82) A (3/10/83)
	206050101	Install Permanent Benchmark Covers	1 (9/17/82) A (4/20/83)
	206050104	Baseline, Operate, and Maintain Instrument System	A (9/01/83)
		<u>DUCTBANK PENETRATION</u>	
	852450105	SWPS - Provide Ducktbank Penetration in SWPS Wall and install pull box.	
		<u>REBEDDING PHASE II</u>	
*	400050100	Install Sheeted Pits Phase IIA	
		<u>BORATED WATER STORAGE TANK FOUNDATION & TANK REPAIR PROGRAM</u>	
		<u>UNIT 1 TANK</u>	
	312150011	Construct New Ring Beam (set forms & place rebar, pour concrete)	1 (8/12/82) A (7/8/83)
	312550019	Reinstall Electrical Ductbank	2 (9/17/82) A (4/6/83)
	312550018	Reinstall Piping, Pipe Hangers and Electrical Facilities	A (3/17/83)

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>UNIT 2 TANK</u>			
	322150011	Construct New Ring Beam (set forms & place rebar, pour concrete)	1 (8/12/82) A (7/8/83)
	322550019	Reinstall Electrical Duct Bank	2 (9/17/82) A (4/6/83)
	322550018	Reinstall Piping, Pipe Hangers and Electrical Facilities	A (3/17/83)
	322150212	Repair Tank Weld Defect	R
	312150015	Relevel Tank-Unit 1	1 (9/17/82)
	312550100	Install Instruments (includes testing and calibration)	1 (11/1/82)
	322550100	Install Instruments (includes testing and calibration)	1 (11/1/82)
<u>UNDERGROUND PIPE REPLACEMENT, REBEDDING, AND MONITORING PROGRAM</u>			
<u>PHASE II PROBING & DEWATERING</u>			
	407050400	Shallow probing for Phase II (Ref DWG C-2031)	A (5/27/83)
	400050005	Deep Probing for Utilities Phase II	
	400050020	Installation of Phase II Dewatering Wells and Piezometers (if required)	
<u>TRAIN B OF SERVICE WATER PIPE REPLACEMENT⁴</u>			
	402550446	Excavate Existing Pipe	1 (8/12/82) A (9/07/83)
	402550550	Remove Existing Pipe	A (9/07/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	402550560	Install new pipe & expansion coupling	A (9/07/83)
	402550561	Hydro Test new pipe	A (9/07/83)
	402550508	Perform Profiling & Ovality Check on New Piping	A (9/07/83)
	402550562	Temporary Backfill New Pipe	1 (4/5/83) A (9/07/83)
<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>			
<u>PERMANENT INTRUSION DETECTION SYSTEM</u>			
	732050002	Install Wire (incl conduit)	3 (8/25/82) A (8/25/82)
	732050003	Install Fence (incl fence posts & concrete strip)	3 (8/25/82) A (8/25/82)
	732050004	Install Grounding	3 (9/17/82) A (9/17/82)
<u>OBS-4 Repair</u>			
	522550018	Dutch Cone Soil Testing in Vicinity of OBS-4 for exploratory purposes	A (07/28/83)
<u>EMERGENCY PERSONNEL LOCKS - UNIT 2</u>			
	792550005	Excavate, rebar, pour concrete and backfill Airlock Structure	1 (9/17/82) A (10/11/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PERMANENT DEWATERING PROGRAM</u>	
	522150005	Install Remaining Wells	1 (9/17/82)
	522550016	Install electrical equipment & conduit	1 (9/17/82)
	522550021	Excavate, install and backfill header piping, electrical conduit, and pumps (including equipment slabs and metering pits)	1 (9/17/82)
	522550026	Assemble and wire pump control panels	A (9/23/83)
	522550014	Excavate Headers & Metering Pits, Install Header and Level Monitoring System, Install Pumps, Timers and Backfill	
		<u>DIESEL FUEL SUPPLY LINES</u>	
	722050001	Install missile shielding	1 (8/25/82)
	722050002	Excavate, remove, reinstall and backfill DFO supply lines	1 (11/1/82)
		<u>DIKE MAINTENANCE</u>	
	817550010	Normal dike maintenance in Q areas	A (5/27/83)
		<u>CONTROL ROOM PRESSURIZATION TANK SETTLEMENT MARKERS</u>	
	932450100	Excavate for, install and backfill Control Room pressurization tank settlement markers	

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1983 and NOVEMBER 30, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>MISCELLANEOUS</u>	
	942450200	Remove (excavation) temporary uncontrolled fill located in Q areas (DWG C-45Q) as identified on NCRs and the OGSE action item logs, and backfill per Spec C-211Q	1 (7/5/83) A (9/27/83)
	942450250	Locate 4" Borehole, East Side of Turbine Building	A (9/27/83)
		<u>CATHODIC PROTECTION</u>	
	752050001	Drill and replace annodes (as necessary)	1 (8/25/82) A (10/6/83)
	752050002	Drill and install new annodes	1 (11/1/82) A (10/6/83)
		<u>CONTAINMENT TENDON ACCESS VENT HVAC</u>	
	802550010	Excavate for, Install and Backfill Electrical Duct Bank and Equipment Pad for the Unit 1 HVAC Fan	1 (9/17/82)
	802550020	Excavate for, Install and Backfill Electrical Duct Bank and Equipment Pad for the Unit 2 HVAC Fan	1 (9/17/82)
		<u>NITROGEN TANK INSTALLATION</u>	
	782550005	Excavate for, install and backfill electrical duct bank	1 (9/17/82)
	782550010	Excavate for, install and backfill piping	1 (9/17/82)
	782550015	Excavate for, install and backfill concrete pad	1 (9/17/82)
	782550020	Excavate for, install and backfill nitrogen tanks and associated concrete structures	1 (9/17/82)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 AND DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>AUXILIARY BUILDING & FIVP UNDERPINNING PROGRAM</u>			
<u>BRACE/STRUT E10 & E11</u>			
	155055320	Install Brace/Strut E10 & E11	
<u>BRACE/STRUT W10 & W11</u>			
	165055320	Install Brace/Strut W10 & W11	
<u>EXCAVATION ZONES</u>			
*	155052070	Excavate/Lag Zone Y3	
*	165052070	Excavate/Lag Zone Z3	
<u>DOWELS AT FIVP</u>			
	155050325	Install dowels at east FIVP	
	165050325	Install dowels at west FIVP	
<u>LONG DRIFTS</u>			
	165052375	Complete Drift KC $\frac{1}{2}$ to CT1 ¹	A (10/19/83)
	155052375	Complete Drift KC9 to CT12 ¹	A (10/19/83)
<u>PIER CT3</u>			
	165052080	Drift To, Excavate, Install & Load Pier CT3 ^{1, 2, 3}	

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 AND DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER CT10</u>	
	155052080	Drift To, Excavate, Install & Load Pier CT10 ^{1,2,3}	
		<u>PIER E5</u>	
	155052060	Finger drift and demo mudmat on Col 9 to J, excavate & install Pier E5 ^{1,2,3}	
		<u>PIER W5</u>	
	165052060	Finger drift and demo mudmat on Col 4 to J, excavate & install Pier W5 ^{1,2,3}	
		<u>PIER E5 SUPPORT COLUMNS & GRILLAGE</u>	
**	155055020	Excavate for & install support columns next to containment & install and load grillage structure at Pier E5. (Including Instrumentation)	
		<u>PIER W5 SUPPORT COLUMNS & GRILLAGE</u>	
**	165055020	Excavate for & install support columns next to containment & install and load grillage structure at Pier W5. (Including Instrumentation)	
		<u>PIER KC5</u>	
	165052340	Finger drift to, excavate, install & load Pier KC5. ^{1,2,3}	A (10/19/83)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial CSC-6967

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 AND DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
		<u>PIER KC8</u>	
	155052340	Finger drift to, excavate, install & load Pier KC8. ^{1,2,3}	A (10/19/83)
		<u>PIER E15</u>	
*	155052045	Drift to/access pit at Pier E15, excavate and install Pier E15.	A (10/19/83)
		<u>PIER W15</u>	
*	165052045	Drift to/access pit at Pier W15, excavate and install Pier W15.	A (10/19/83)
		<u>PIER E16</u>	
*	155052055	Access pit at Pier E16. Excavate, install and load Pier E16.	A (10/19/83)
		<u>PIER W16</u>	
*	165052055	Access pit at Pier W16. Excavate, install and load Pier W16.	A (10/19/83)
		<u>PIER E17</u>	
*	155052075	Drift to Pier E17 from E16. Excavate, install and load Pier E17.	A (10/19/83)
		<u>PIER W17</u>	
*	165052075	Drift to Pier W17 from W16. Excavate, install and load Pier W17.	A (10/19/83)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
	202550163	Remove abandoned fire protection pipeline (as necessary)	1 (11/1/82) A (5/27/83)

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN DECEMBER 1, 1983 AND DECEMBER 31, 1983
DEVELOPED IN COMPLIANCE WITH ASLB ORDER OF APRIL 30, 1982

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
<u>REBEDDING PHASE II</u>			
*	400050110	Install Soldier Beams Phase IIA	
*	400050400	Install Sheeted Pits Phase IID	
*	400050200	Install Sheeted Pits Phase IIB	
*	400050300	Install Sheeted Pits Phase IIC	
<u>PIER 1</u>			
*	207053005	Excavate, install and load Pier 1	
*	207050005	Set up and perform plate load test Pier 1	
<u>PIER 1A</u>			
*	207053010	Excavate, install and load Pier 1A	
<u>CONCRETE SWPS FLOOR TRENCH</u>			
*	200054000	Concreting of SWPS North Floor Trench and core drilling of through anchor bolt holes.	
<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>			
<u>MISCELLANEOUS</u>			
	912450100	Repair Condensor Drain Line 2YBJ-8	

FOOTNOTES

- ¹ Drift Activity normally includes
 1. fabricate steel sets
 2. excavate
 3. install steel sets (Hilti bolts as necessary)
 4. remove concrete (as necessary)
 5. localized dewatering (as necessary)
 6. install wood lagging
 7. place mudmat
 8. stabilize soil (as necessary)
 9. brace and/or rebrace
 10. concrete invert
 11. slope layback

- ² Excavate Pier activity normally includes
 1. excavate
 2. concrete removal (as necessary)
 3. dewatering (as necessary)
 4. fabricate steel lagging
 5. install steel lagging
 6. auger bottom of pit to determine hydrostatic water pressure & plug (piers 10 & 12 E&W)
 7. place mudmat
 8. stabilize soil (as necessary)

- ³ Install & load Pier activity normally includes
 1. fab & install embeds
 2. fab & install reinforcing steel
 3. install telltales
 4. install Carlson meters (pier 11 E&W)
 5. place concrete
 6. fab & install leveling & bearing plates, jackstands
 7. install jacks
 8. transfer load.
 - *9. monitor and adjust pier jacks after load transfer

- ⁴ These activities have been broken down into Train A and Train B. They were previously combined under the title "Train A & B of Service Water Pipe Replacement."

- ⁵ Excavate Access Shaft Activity Normally Includes:
 1. excavate
 2. fabricate and install steel lagging
 3. fabricate and install structural steel supports and bracing
 4. place mudmat
 5. stabilize soil (as necessary)
 6. localized dewatering (as necessary)
 7. support and protect utilities

⁶ Activity 207050620 was incorrectly given the designation of "R" on two previous reports. The approval for this activity was given on 5/27/83 and work had started before the 90-day period. This report is giving the activity a correct status.

NOTES

A single asterisk (*) in left hand column indicates the work activity is a new item.

A double asterisk (**) in left hand column indicates the work activity description has been revised.

Designation 1 in the right hand column indicates additional information is required by NRC Region III on this critical activity.

Designation 2 in the right hand column indicates no additional information is required by NRC Region III on this critical activity.

Designation 3 in the right hand column indicates that the activity is not critical and work can proceed.

The date shown after the designation corresponds to the date of the NRC letter that provided the designation.

An "A" following the designation indicates that Region III has provided approval to proceed with the activity. The date following the "A" corresponds with the date of the NRC letter that provides authorization to proceed with the work activity.

A "R" in the right hand column indicates that previous designation or approval has been recinded because of a significant revision to the work activity or 90 days has elapsed or is expected to elapse since the work was authorized without the work being initiated.



**Consumers
Power
Company**

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

PRINCIPAL STAFF	
✓ RA	
✓ V/R	
✓ W/PA	
✓ RC	ORMA
PAO	SCS ✓
SGA	ML
ENF	File

Page 3

October 17, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6955
12*32

We have completed our review of the documents for the activities below. Based on our review, we concluded that we are ready to start the work:


- 155052340 Finger drift to, excavate, install and load Pier KC8
- 165052340 Finger drift to, excavate, install and load Pier KC5
- 165052375 Complete drift KC4 to CT1
- 155052375 Complete drift KC9 to CT12
- 155052045 Drift to/access pit at Pier E-15 excavate and install Pier E-15
- 165052045 Drift to/access pit at Pier W-15 excavate and install Pier W-15
- 155052055 Access pit at Pier E-16. Excavate, install and load Pier E-16
- 165052055 Access pit at Pier W-16. Excavate, install and load Pier W-16
- 155052075 Drift to Pier E-17 from E-16. Excavate, install and load Pier E-17
- 165052075 Drift to Pier W-17 from W-16. Excavate, install and load Pier W-17
- 207050783 Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower east section of SWPS access shaft (soldier piles 15 thru 30 - maximum excavate to EL 618'±6" excluding localized excavation.)⁵
- 207050784 Excavate, lag, brace and install wales and struts, pour and cure concrete mudmat in lower west section of SWPS access shaft (soldier pilts 1 thru 14 - maximum excavation to EL 618'±6" excluding localized excavation.)⁵

OC1083-0001A-CN01

OCT 26 1983

~~83-1031-0366~~

According to the NRC/CPCo Work Authorization Procedure, we request authorization for the above activities.


Dean L. Quamme
Site Manager

DLQ/AEB/klm

OC1083-00C1A-CN01



**Consumers
Power
Company**

Donald B Miller, Jr
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

J. Lee
orig + 3
Lee
Lee

October 6, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6934
12*32

We have completed our review of the documents for the activity below. Based on our review, we concluded that we are ready to start the work:

EMERGENCY PERSONNEL LOCKS - UNIT #2

792550005 -- Excavate rebar, pour concrete and backfill airlock structure

DBM/AEB/bjh

OCT 11 1983

8310L70439



**Consumers
Power
Company**

Midland Project: PO Box 1963, Midland, MI 48640 • (517) 631-8650

Donald B Miller, Jr
Site Manager
Midland Project

PRINCIPAL STAFF	
RA	ENF
D/RA	ECS
A/RA	PAO
RR	SLO
RA	RC
MSP	
GE	
KL	
GL	FILE

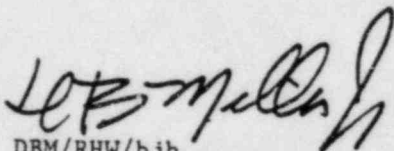
October 5, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6927
12*32

We have reviewed the work packages for the following activities and request your authorization to proceed in accordance with the Work Authorization Procedure:

- 752050001 Drill and Replace Anodes (As Necessary)
- 752050002 Drill and Install New Anodes


DBM/RHW/bjh

OCT 11 1983

8310140273



**Consumers
Power
Company**

Donald B Miller, Jr
Site Manager
Midland Project

Midland Project: PO Box 1963, Midland, MI 48540 • (517) 631-8650

PRINCIPAL STAFF	
RA	ENF
D/RA	SCS <i>orig + 3</i>
A/RA	PAO
CRP	ELO
ICMA	RC
INSF	
DE	
ML	
OL	FILE

October 5, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6926
12*32

This letter documents the phone conversation of 9/27/83 between R. Wieland and R. Wheeler of CPCo and Dr. R. Landsman of NRC Region III. It is CPCo's intention to remove all soil and drift sets above el. 600' on the north side of drift from KC2 to KC3 (up to piers W9, W10, @11) after the drift invert is poured. This would also be done on the east side north of drift from KC11 to KC10 (up to piers E9, E10, D11). The south side of the drift will remain lagged up to the underside of the turbine building slab. Dr. Landsman concurred with this as constituting a minor change to activities 155052030 and 165052030.

DBM/RHW/bjh

8310170714

OCT 11 1983

File



**Consumers
Power
Company**

J A Mooney
Executive Manager
Midland Project Office

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0774

September 26, 1983

Mr J J Harrison
Midland Project Seciton
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

PRINCIPAL STAFF			
✓ RA	RA	CHIEF	
D/RA		INS	right 3
A/RA		PAO	
TRP		ISA	
DRMA			
DRMSP			
DE			
AL			
OL			

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6908
12*32

We have completed our review of the documents for the activities listed below. Based on our review, we concluded that we are ready to start the work:

- 942450200 - Remove (excavation) temporary uncontrolled fill located in Q areas (drawing C-45Q) as identified on NCR's and the OGSE action item logs, and backfill per Spec C-211Q
- 942450250 - Location of 4" borehole, east side of Turbine Building
- 207050646 - Continuing monitoring and repair of the CWIS/SWPS hydraulic seal

According to the NRC/CPCo Work Authorization Procedure, we request authorization for the above activities.

JAMooney

JAM/AEB/klm

SEP 29 1983

8349300357

sent to DMIB 9/22/83.



**Consumers
Power
Company**

General Offices: 1945 West Parnell Road, Jackson, MI 49201 • (517) 788-0774

J A Mooney
Executive Manager
Midland Project Office

PRINCIPAL STAFF	
✓ RA	W/GENE
D/	SCS
✓	
GL	FILE

September 16, 1983

Mr J J Harrison
Midland Project Section
U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER GWO 7020
REMEDIAL SOILS WORK AUTHORIZATION
File: 0485.16 UFI: 42*05*22*04 Serial: CSC-6880
12*32

Per phone conversation 9/6/83, between R. Wheeler and R. Wieland of CCo and Dr. R. Landsman of NRC Region III, maintenance and repair of the existing soil slopes in the tank farm area adjacent to the Borated Water Storage Tanks will be considered incidental to previously approved work. Dr. Landsman concurred that this work may proceed.

JAM/RHW/klm

SEP 22 1983

~~8304260248~~