



Donald B Miller, Jr
 Site Manager
 Midland Project

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

September 24, 1982

Mr. W. D. Shafer, Chief
 Midland Project Section
 US Nuclear Regulatory Commission
 Region III
 799 Roosevelt Road
 Glen Ellyn, IL 60137

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MIDLAND NUCLEAR COGENERATION PLANT
 REMEDIAL SOILS
 WORK AUTHORIZATION

File: 0485.16 JFI: 12*32 Serial: CSC-6335
 42*05*22*04

We are enclosing the proposed list of work in accordance with the "NRC and CPCo Work Authorization Procedure" for the period between October 1, 1982 and October 31, 1982. Please review this work list and authorize the specific work items as established in the procedure.

We have also enclosed a Supplemental Work Activity List for November 1982. Your review, comments and authorization of the specific Work Items as in accordance with the procedure is similarly requested.

New items to our last submitted Work List amendment are items highlighted with a single asterisk. Two work items previously appearing on our Work List but revised to change numbering are identified with footnotes and the previous activity identifier. Revised items to our last submitted Work List are identified by a double asterisk.

For the work specified to be in progress in October, please provide the requested authorization by October 1, 1982.

We would appreciate priority handling for the following activities:

- 165052015 Pier 12W-Drift From Access Shaft to Pier 12W
- 165053010 Pier 12W-Excavate Pier 12W
- 165054010 Pier 12W-Install and Load Pier 12W
- 155052015 Pier 12E-Drift from Access Shaft to Pier 12E
- 155053010 Pier 12E-Excavate Pier 12E
- 155054010 Pier 12E-Install and Load Pier 12E
- 207050604 SWPS Dewatering-Probe for Deep Utilities
- 207050645 SWPS Dewatering-Install Seal Between SWPS and CWIS
- 207050386 SWPS Core Drill CWIS Slab for Ejector Wells

8406050139 840517
 PDR FOIA
 RICE84-96 PDR

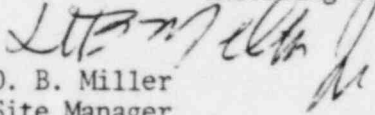
SEP 30 1982

REMEDIAL SOILS WORK AUTHORIZATION

September 24, 1982

Page 2

202550100 SWPS Building Monitoring-Install Deep Seated Bench Marks
207050335 SWPS Access Shaft and Open Cut Excavating-Install Soldier Piles
312150011 BWST Unit #1 Tank-Construct New Ring Beam
322150011 BWST Unit #2 Tank-Construct New Ring Beam
202550500 Train A & B of 36" SW Pipe Replacement-Excavate Existing Pipe
115150026 Remove 36" casing and backfill 42" hole
102150017 Proofload Jacking (four point jacking test to be deleted by drawing C-1494)
112150017 Proofload Jacking (four point jacking test to be deleted by drawing C-1494)
822550001 Excavate for Install and Backfill Drainline and Slab for Acid-Caustic
Unloading Station at East end of Turbine Building.


D. B. Miller
Site Manager

DBM/GBJ/dmw

Attachment

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN OCTOBER 1, 1982 AND OCTOBER 31, 1982
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>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)	
102150017	Proofload Jacking (four point jacking test to be deleted by drawing C-1494)	2 (9/17/82)	
<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)	
112150017	Proofload Jacking (four point jacking test to be deleted by drawing C-1494)	2 (9/17/82)	
<u>CONTROL TOWER POST TENSION VERIFICATION</u>			
102550203	Verify Post Tension Loads	3 (8/13/82) A(8/13/82)	
<u>BUILDING MONITORING</u>			
136050043	Maintain Instrument System	3 (8/12/82) A(8/12/82)	
<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)	

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN OCTOBER 1, 1982 AND OCTOBER 31, 1982
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NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	115150026	Remove 36" casing and backfill 42" hole.	1 (9/17/82)
	115150025	Clean out and backfill abandoned ejector holes.	3 (9/17/82) A(9/17/82)
	125150051	Install Clay to Below Duct Bank (pit 4)	1 (8/12/82)
	125150052	Repair Duct Bank (pit 4) (includes excavate, drift, repair and backfill)	1 (8/25/82)
		<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>	
	165052015	Drift from Access Shaft to Pier 12W ¹	1 (8/12/82)
	165053010	Excavate Pier 12W ²	1 (8/12/82)
	165054010	Install & Load Pier 12W ³	1 (8/12/82)
		<u>PIER 11W</u>	
	165052027	Drift from Access Shaft to Pier 11W ¹	1 (8/25/82)
	165053015	Excavate Pier 11W ²	1 (8/25/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

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NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165054015	Install & Load Pier 11W ³ (includes install bituminous plywood forms)	1 (8/25/82)
	105050908	Perform Pier Load Test	1 (8/25/82)
	165052010	<u>PIER 9W</u> Drift from Access Shaft Under FIVP to Pier 9W ¹	1 (8/12/82)
	165053005	Excavate Pier 9W ²	1 (9/17/82)
	165054005	Install & Load Pier 9W ³	1 (9/17/82)
	155052015	<u>PIER 12E</u> Drift from Access Shaft to Pier 12E ¹	1 (8/12/82)
	155053010	Excavate Pier 12E ²	1 (8/12/82)
	155054010	Install & Load Pier 12E ³	1 (8/12/82)
	155052027	<u>PIER 11E</u> Drift from Access Shaft to Pier 11E ¹	1 (8/25/82)
	155053015	Excavate Pier 11E ²	1 (8/25/82)
	155054015	Install & Load Pier 11E ³	1 (8/25/82)
	155052010	<u>PIER 9E</u> Drift from Access Shaft Under FIVP to Pier 9E ¹	1 (8/12/82)
	155053005	Excavate Pier 9E ²	1 (9/17/82)
	155054005	Install & Load Pier 9E ³	1 (9/17/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN OCTOBER 1, 1982 AND OCTOBER 31, 1982
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>BEAM CONNECTIONS</u>	
	102250201 ⁸	Modify Beam Connections at elev 646 (6 connections)	1 (9/17/82)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>DEWATERING</u>	
	207050605	Install Ejector Wells	1 (8/12/82) A(9/17/82)
	207050385	Core Drill SWPS Slab for Ejector Wells	3 (9/17/82) A(9/17/82)
*	207050386	Core Drill CWIS Slab for Ejector Wells	
	207050603	Probe for Shallow Utilities	3 (9/17/82) A(9/17/82)
	207050604	Probe for Deep Utilities	1 (9/17/82)
	207050600	Install Piezometers	2 (8/25/82) A(8/25/82)
	207050645	Install Seal Between SWPS & CWIS	1 (8/25/82)
	207050635	Install Dewatering Discharge System (including headers, tank, pumps and electrical)	2 (9/17/82)
*	207050387	Convert 7 Wells used on 72" pipe repair to support SWPS dewatering. (Includes install new ejectors, temporary headers, operate, & maintain)	
		<u>BUILDING MONITORING</u>	
	202550100	Install Deep Seated Bench Marks	1 (8/12/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

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

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	206050105	Crack Map SWPS	1 (9/17/82)
	206050100	Install Extensometers	1 (9/17/82)
**	206050106	Install Instruments (Includes testing & calibration)	1 (9/17/82)
	206050102	Install Brackets	1 (9/17/82)
	207550103	Install Conduit	1 (9/17/82)
	202550104	Install and Terminate Cable	1 (9/17/82)
	206050101	Install Instrument Covers	1 (9/17/82)
		<u>ACCESS SHAFT & OPEN CUT EXCAVATION</u>	
	207050335	Install Soldier Piles	1 (8/12/82)
	207056005	Excavate (including install lagging)	1 (8/25/82)
	202550162	Relocate Fire Protection Pipeline	1 (8/12/82) A(9/17/82)
*	202550163	Remove Abandoned Fire Protection Pipeline	
		<u>BORATED WATER STORAGE TANK FOUNDATION & TANK REPAIR PROGRAM</u>	
		<u>UNIT 1 TANK</u>	
	312150111	Rebar Mapping	3 (8/25/82) A(8/25/82)
	312150011	Construct New Ring Beam (drill & grout dowels, set forms & place rebar, pour concrete)	1 (8/12/82)
	312150211	Strip Waterproof Membrane on Valve Pit	3 (8/25/82) A(8/25/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

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

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	312150015	Relevel Tank	1 (9/17/82)
	312550019	Reinstall Electrical Ductbank	2 (9/17/82)
	312550018	Reinstall Piping, Pipe Hangers and Electrical Facilities	3 (9/17/82) A(9/17/82)
		<u>UNIT 2 TANK</u>	
	322150111	Rebar Mapping	3 (8/25/82) A(8/25/82)
	322150011	Construct New Ring Beam (drill & grout dowels, set forms & place rebar, pour concrete)	1 (8/12/82)
	322150211	Strip Waterproof Membrane on Valve Pit	3 (8/25/82) A(8/25/82)
	322150212	Repair Tank Weld Defect	1 (8/25/82) A(9/17/82)
	322550019	Reinstall Electrical Duct Bank	2 (9/17/82)
	322550018	Reinstall Piping Pipe Hangers and Electrical Facilities	3 (9/17/82) A(9/17/82)
		<u>UNDERGROUND PIPE REPLACEMENT, REBEDDING, AND MONITORING PROGRAM</u>	
		<u>TRAIN A & B OF 36" SERVICE WATER PIPE REPLACEMENT</u>	
	202550500	Excavate Existing Pipe	1 (8/12/82)
	202550510	Remove Existing Pipe	1 (8/25/82)
	202550520	Install new pipe & expansion coupling	1 (8/25/82)
	202550525	Temporary Backfill	1 (8/25/82)

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

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	402550515	Hydro Test new pipe	3 (9/17/82) A(9/17/82)
*	402550507	Perform Profiling & Ovality Check on New Piping	
		<u>PERMANENT DEWATERING PROGRAM</u>	
	522150005	Install Remaining wells	1 (9/17/82)
**	522550010	Excavate for, Construct, and Backfill Electrical Duck Bank	1 (9/17/82)
	522550015	Install Electrical Equipment & Conduit	1 (9/17/82)
**	522550020	Excavate for, Install and Backfill Header Piping and Pumps (including equipment slabs and metering pits)	1 (9/17/82)
		<u>CONSTRUCTION WORK IN SOIL MATERIAL PROGRAMS</u>	
		<u>DIESEL FUEL STORAGE LINES</u>	
	722050001	Install Missile Shielding	1 (8/25/82)
*	722050002	Excavate for, Remove, Reinstall and Backfill Diesel Fuel Oil Supply Lines	
		<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)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

WORK ACTIVITY LIST FOR THE PERIOD BETWEEN OCTOBER 1, 1982 AND OCTOBER 31, 1982
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>COOLING POND DIKE</u>	
	742050001	Replace Armor Stone on N.E. dike	1 (8/25/82) A(8/25/82)
		<u>CATHODIC PROTECTION</u>	
	752050001	Drill & Replace Annodes (as necessary)	1 (8/25/82)
*	752050002	Drill & Install New Annodes	
		<u>TECHNICAL SUPPORT CENTER</u>	
	772050002	Excavate & Install Domestic Water Pipeline	1 (8/25/82) A(9/02/82)
	772050003	Excavate & Install Sanitary Pipeline	1 (8/25/82) A(9/02/82)
		<u>NITROGEN TANK INSTALLATION</u>	
	782550005	Excavate for, Install, and Backfill Electrical Duck 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	
		<u>EMERGENCY PERSONNEL LOCKS - UNIT 2</u>	
	792550005	Excavate for, Install and Backfill Concrete Airlock Structure	1 (9/17/82)
		<u>CONTAINMENT TENDON ACCESS VENT HVAC</u>	
	802550010	Excavate for, Install and Backfill Electrical Duck Bank and Equipment Pad for the Unit 1 HVAC FAN	1 (9/17/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

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

NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	802550020	Excavate for, Install and Backfill Electrical Duck Bank and Equipment Pad for the Unit 2 HVAC Fan	1 (9/17/82)
		<u>SIT/ILRT TEST FACILITIES</u>	
	812550010	Excavate for, Install and Backfill Utilities and Concrete Pad for the Unit 1 Test Equipment	1 (9/17/82)
	812550020	Excavate for, Install and Backfill Utilities and Concrete Pad for the Unit 2 Test Equipment	1 (9/17/82)
		<u>ACID-CAUSTIC UNLOADING STATION</u>	
*	822550001	Excavate for, Install, and Backfill Drainline and Slab for Acid-Caustic Unloading Station at East end of Turbine Building	

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1982 AND NOVEMBER 30, 1982
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>WEST ACCESS SHAFT</u>		
165052020	Excavate Shaft to Elevation 597 (also remove material under FIVP on 3:1 slope)	1 (9/17/82)
<u>EAST ACCESS SHAFT</u>		
155052020	Excavate Shaft to Elevation 597 (also remove material under FIVP on 3:1 slope)	1 (9/17/82)
<u>PIER 8W</u>		
165052025	Drift from Pier 9W to Pier 8W ¹	1 (9/17/82)
165053020	Excavate Pier 8W ²	1 (9/17/82)
165054020	Install & Load Pier 8W ³	1 (9/17/82)
<u>GRILLAGE STRUCTURE AT PIER 8W</u>		
165052305	Drift for and Install Bulkhead from Pier 8W north to Containment Wall ¹	1 (9/17/82)
165059025	Excavate and remove mudslab for Grillage Beams between Pier 8W and Containment ¹	1 (9/17/82)
165053025	Excavate for Support Columns next to Containment ²	1 (9/17/82)
165055003	Install Steel Support Columns next to Containment	1 (9/17/82)
165055010	Install & Load Grillage Structure at Pier 8W	1 (9/17/82)
<u>PIER Kc 2</u>		
165052325	Drift from West Access Shaft to Pier Kc 2 ¹	1 (9/17/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

SUPPLEMENTAL WORK ACTIVITY LIST FOR THE PERIOD BETWEEN NOVEMBER 1, 1982 AND NOVEMBER 30, 1982
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NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	165053320	Excavate Pier Kc 2 ²	1 (9/17/82)
	165054315	Install & Load Pier Kc 2 ³	1 (9/17/82)
		<u>PIER 10W</u>	
	165052050	Excavate Access to Pier 10W ¹	1 (9/17/82)
	165053035	Excavate Pier 10W ²	1 (9/17/82)
		<u>PIER 8E</u>	
	155052025	Drift from Pier 9E to Pier 8E ¹	1 (9/17/82)
	155053020	Excavate Pier 8E ²	1 (9/17/82)
	155054020	Install & Load Pier 8E ³	1 (9/17/82)
		<u>GRILLAGE STRUCTURE AT PIER 8E</u>	
	155052305	Drift for and Install Bulkhead from Pier 8E north to Containment Wall ¹	1 (9/17/82)
	155059025	Excavate and remove mudslab for Grillage Beams between Pier 8E and Containment ¹	1 (9/17/82)
	155053025	Excavate for Support Columns next to Containment ²	1 (9/17/82)
	155055003	Install Steel Support Columns next to Containment	1 (9/17/82)
	155055010	Install & Load Grillage Structure at Pier 8E	1 (9/17/82)
		<u>PIER Kc 11</u>	
	155052325	Drift from East Access Shaft to Pier Kc 11 ¹	1 (9/17/82)

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

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NEW OR REVISED ITEMS	ACTIVITY IDENTIFIER	PROGRAM, WORK AREA & ACTIVITY	PREVIOUS REGION III DESIGNATION
	155053320	Excavate Pier Kc 11 ²	1 (9/17/82)
	155054315	Install & Load Pier Kc 11 ³	1 (9/17/82)
		<u>PIER 10E</u>	
	155052050	Excavate Access for Pier 10E ¹	1 (9/17/82)
	155053035	Excavate Pier 10E ²	1 (9/17/82)
		<u>SERVICE WATER PUMP STRUCTURE UNDERPINNING PROGRAM</u>	
		<u>DEWATERING</u>	
	207050620	Activate Dewatering System	1 (9/17/82)
		<u>BUILDING MONITORING</u>	
	206050107 ^f	Install Strain Monitors	1 (9/17/82)
*	206050104	Baseline, Operate and Maintain Instrument System	
		<u>PIER 1E</u>	
	207053005	Excavate Pier 1E ²	1 (9/17/82)
	207054005	Install and load Pier 1E ³	1 (9/17/82)
		<u>PIER 1W</u>	
	207053010	Excavate Pier 1W ²	1 (9/17/82)
	207054010	Install and load Pier 1W ³	1 (9/17/82)
		<u>BORATED WATER STORAGE TANK FOUNDATION & TANK REPAIR PROGRAM</u>	
		<u>UNIT 1 TANK</u>	
*	312550100	Install Instruments (Includes testing and calibration)	

Consumers Power Company
Midland Plant Units 1 & 2

Attachment to Serial
CSC-6335

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<u>NEW OR REVISED ITEMS</u>	<u>ACTIVITY IDENTIFIER</u>	<u>PROGRAM, WORK AREA & ACTIVITY</u>	<u>PREVIOUS REGION III DESIGNATION</u>
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*	322550100	<u>UNIT 2 TANK</u> Install Instruments (Includes testing and calibration)	
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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
- 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.
- ^f Activity previously identified incorrectly as 206050102
- ^g Activity previously identified incorrectly as 1025503010