PLAINTIFF'S EXHIBIT
KEN-49

INTER-OFFICE MEMORANDUM

TO: See Distribution
AT:

DATE: May 14, 1968

FROM: O. A. Finsand
O. A. Finsand

COPIES TO:

AT: Middletown Construction

JOB NO.: 7700

SUBJECT: KAISER ENGINEERS: WEEKLY FIELD ACTIVITY REPORT

Transmitted herewith is the subject report for the week ending May 14, 1968.

OAF/LM/sec

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KAISER ENGINEERS
WEEKLY FIELD ACTIVITY REPORT
Week ending May 14, 1968

WEATHER: Warm throughout the period with three days of rain.

TEMPERATURE: Maximum = 74°
Minimum = 48°

CLIENT: Armco Steel Corporation

LOCATION: Middletown, Ohio

JOB NUMBER: 6471

JOB VISITORS

none

SUMMARY FORCE REPORT

	Kaiser Engineers Exempt	Kaiser Engineers Non-Exempt	Subcontractors	Foothill Electric	Total
Management	4	4		1	9
General Supervision	15	1	19	5	40
Field Engineering	42	16	13	14	85
Wareha. & Mtl. Control	3	6		1	10
Survey	1	14	3		18
Office Srv. & Repro.	1	5			6
Clerical			16	13	29
Craft *		784	873	563	2,220
TOTAL	66	830	924	597	2,417

* Average for week of men on payroll.

Average for week of Crafts is as follows:

Kaiser Engineers	721
Subcontractors	729
Foothill Electric	504
Total Crafts Working	1,954

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WEEKLY FIELD ACTIVITY REPORT
Week Ending May 14, 1968

PROJECT PROGRESS

1. 7148 - HOT STRIP MILL

Successful coiling operations were continued by Armco throughout the period with #1 and 2 reheat furnaces operating. On Monday, May 13th, 266 prime coils were processed for a new daily record. In the boiler area, the forced draft and induced draft fans for unit #1 were operated successfully throughout the period after completion of the Worthington modification requirements. At unit #2, the forced draft fan has continued in operation and Worthington modification requirements were applied to the induced draft fan unit. Modifications for the forced draft unit will be completed next period when the hot strip mill operations will be down for a four day period starting Friday, May 17th. During this down period, repair work will be carried out on the extractor doors for the furnaces together with some brick repair work and remaining items of work in the fan area. At unit #3, modifications were in progress for both the forced draft and induced draft fan units. These units are scheduled to be complete next period to support boil-out and start-up of #3 boiler and furnace. Eight KE pipefitters continued with remaining punch list requirements together with repair work in the bag house area. One crew of ironworkers continued with installation of additional requirements in the downcoiler area, punch list items in the furnace area, bumpers for crane 309 as well as ladders to the valves for the 14 inch top spray system. Work will start next period on repair of the running rails for the dry scale removal system which was damaged during operation. Sheetmetal workers continued with remaining requirements for the bag house louvers, doors and latches during the period. Stuart Painting and Owens Corning Fiberglas Companies continued during the period with remaining painting and insulation in the north end of the hot strip mill. Grinnell Company arrived on the job site to complete the water line connections to the fire protection system. After these connections, the system will be tested and ready for operation. Delta Pipeline Constructors completed the testing of the fire protection header on D line. 148 cubic yards of backfill was placed in the fuel oil fill station area. Remaining work consists of the installation of the stations and the slab-on-grade. Foothill Electric maintained one hundred and three electricians in the hot strip mill during the period. 1,400 feet of low voltage cable was installed for a total to date of 1,480,000 feet or 99% complete. 44 low voltage cable terminations were made for a total to date of 25,403 or 99% complete. 94 lbs. of structure grounding was installed for a total to date of 146,297 or 99% complete. 648 lbs. of exposed conduit was installed for a total to date of 1,457,375 lbs. or 99% complete.

2. 7146 - SLAB MILL

2.3 Structural and Miscellaneous Steel: An average work force of twenty-three ironworkers continued with miscellaneous iron installation in the slab mill. During the period, the stairway installation at column 80 was completed. Canopy brackets for the collector rails for crane 364 were completed. The dust shield at the main drive motor was installed together with doors, decking and ladders under the main motor and at the motor generator sets. At the fume elimination building, siding work is now 25% complete.

2.5 Heating and Ventilating: Bag house 2 was completed and ready for start-up at the close of this period. Bag house 1 is scheduled to complete next period. At the main office complex, installation of ductwork was continued throughout the period. This heating and ventilating system is now 60% complete.

2.6 Mechanical: Eichleay Corporation maintained an average work force of thirty men on mechanical installation in the slab mill. At the main mill, alignment of the vertical mill motor together with dowelling has been completed. In the main mill aisle, progress was continued on lubrication and testing requirements to support coupled tests. The crop conveyor drive is now completed. Reeving of the dry scale drag system has also been completed. Positioning cylinders for the scarfer system were installed. Progress is continuing on the lubrication and packing of components in the hydraulic systems. Eichleay's mechanical work appears to have advanced adequately to support all start-up requirements. During the period, coupled tests were carried out on the ingot buggy, tables 3, 4 and 5 and pusher #2. Uncoupled tests were made on two MLPW pumps and two slag scarfer water pumps in the scale pit.

2.7 Piping: Hunter Corporation maintained an average work force fifty-three men on slab mill piping this period. Major piping systems worked on were: hydraulic system 1, bulk grease, compressed air, natural gas and scarfer piping. 746 feet of piping was installed for a total to date of 41,438 feet. 11,880 feet remain to be installed. Pickling of hydraulic system 2 is now in progress together with the pickling of lube oil system 8. Hydro testing of hydraulic system 1 is now underway and is scheduled for pickling next period. Permanent oil was installed in lube oil system 3. Hunter has increased his work force by eleven additional men this period.

2.8 Electrical: Foothill Electric maintained 196 electricians in the slab mill during the period. 6,076 lbs. of exposed conduit was installed for a total to date of 195,473 lbs. or 89% complete. 373 lbs. of structure grounding was installed for a total to date of 33,443 lbs. or 84% complete. 9,500 feet of 2.4 KV cable was installed for a total to date of 15,100 feet or 97% complete. 6 - 2.4 KV terminations were made for a total to date of 102 or 85% complete. 10,700 feet of low voltage cable was installed for a total to date of 459,700 feet or 94% complete. 173 low voltage terminations were made for a total to date of 6,570 or 96% complete. 7,000 feet of control cable was installed for a total to date of 219,500 feet or 93% complete. 364 control cable terminations were made for a total to date of 7,175 or 72% complete. 7,000 feet of computer cable was installed for a total to date of 72,700 feet. 148 computer terminations were made for a total to date of 4,400 or 98% complete. 3,855 feet of communications and TV wire was installed and 599 terminations were made. 86 feet of cable tray was installed for a total to date of 20,057 feet or 95% complete. 1,418 lbs. of conduit and 2,310 feet of lighting wire was installed.

3. 7143 - SOAKING PITS

3.3 Structural and Miscellaneous Steel: Revision requirements were worked on in the skip hoist tower area this period together with remaining handrail installations. Sheetmetal workers completed the cap flashing for the skip hoist and service bay area. All roofing and siding work for the soaking pit facility was completed this period.

3.6 Mechanical: Loftus Engineering maintained an average work force of one hundred and nine men on battery installation. At batteries 5 and 6, refractory work and pit covers are now completed. Final refractory installation was continued at batteries 3 and 4. #4 battery is now 50% complete and #3 is 30% complete. Eight pit covers have been completed to date. The 24 inch belt conveyor was test operated and it was found that some idler adjustments were required. Revisions were completed on crane 357 and this unit was put into service at the close of the period. Crane 358 is now being used for installation of high bay lighting. The car puller and car shaker at the unloading dock were completed.

3.7 Piping: Delta Pipeline Constructors maintained an average work force 25 men on service piping in the soaking pit area. Major piping systems worked on during the period were natural gas and oxygen. 170 feet of piping was installed for a corrected total to date of 23,541 feet. 2,927 feet remain to be installed. Insulation continued throughout the period on steam piping. This work is now 50% complete.

3.8 Electrical: Foothill Electric maintained ninety-three electricians in the soaking pits during the period. 2,650 lbs. of exposed conduit was installed for a total to date of 104,185 lbs. or 74% complete. 4,000 lbs. of conduit, 4,700 feet of wire and twenty-eight fixtures were installed. 1,700 feet of low voltage cable was installed for a total to date of 41,700 feet or 77% complete. 21 low voltage terminations were made for a total to date of 324 or 80% complete. 300 feet of control cable was installed for a total to date of 2,900 feet or 28% complete. 139 control cable terminations were made for a total to date of 411 or 68% complete. 297 lbs. of structure grounding was installed for a total to date of 5,048 lbs. or 50% complete. 720 feet of communication wire was installed and 82 terminations were made. 2,130 feet of welding and utility feeders were installed for a total to date of 2,130 feet or 8% complete.

4. 7128 - BASIC OXYGEN FACILITY AND MOLD YARD

4.1 Excavation and Backfill: 4,280 cubic yards of excavation was accomplished at the B.O.F. facility this period for a total to date of 224,606 cubic yards. 1,619 cubic yards of backfill was completed for a total to date of 254,242 cubic yards. Excavation included the cooling water tower foundation, underground conduit, pipe bridge footing and sanitary and storm sewer trenches. Backfill included the pump building, underground conduit east of the electric control room and sanitary sewer trench.

4.2 Concrete: 502 cubic yards of concrete was placed at the B.O.F. facility for a total to date of 21,564 cubic yards. This concrete included the east wall of the electric control room to elevation 107, the walls for the west cable vault in the control room, the operating floor between columns 19 and 21, filter building footing and grade beams between columns 20 and 21 on C line.

4.3 Structural and Miscellaneous Steel: No structural steel was erected during the period due to the operating engineers' strike. Miscellaneous steel erection continued on the hot metal reladling pit scales.

4.4 Roofing and Siding: Roofing progress continued during the period with 2,456 square feet installed for a total to date of 48,791 square feet. This roofing included progress in the area from D to F line between columns 23 and 26 and the ventilators between G and H line and columns 21 to 17 and the ventilators on D line between columns 21 and 25. 1,655 square feet of siding was installed for a total to date of

47,663 square feet. This siding included the gable end at column 21 and siding on D line between columns 19 and 24.

4.6 Mechanical: Combustion Engineering continued assembly of the #1 gas cooler at elevation 169 together with preassembly work on sections of #1 and 2 coolers and ground level. The lower section of the cooler for unit #1 has been moved into the B.O.F. with erection being started on May 7th.

4.7 Piping: Progress continued on the installation of roof drains on F line between columns 9 and 16 and H line between columns 9 and 12 with 282 feet installed during the period. 96 feet of floor drains were installed under the service floor. 374 feet of sanitary sewer pipe was installed during the period and 270 feet of service piping was installed southwest of the B.O.F.

4.8 Electrical: Foothill Electric continued the installation of the embedded conduit east of the electrical control room together with various conduit runs to the elevator shaft, pump building and at column 24 on F line. At the mold yard, progress continued on the railroad lighting and the traveling platforms were energized and tested during the period. Electrical work continued on cranes 502, 506 and 508. 259 lbs. of structure grounding was installed for a total to date of 2,854 lbs. or 24% complete. 24,354 lbs. of embedded conduit was installed for a total to date of 277,246 lbs. or 67% complete. 65 lbs. of exposed conduit was installed for a total to date of 34,292 lbs. or 11% complete. 529 lbs. of conduit, 25,650 feet of wire and four fixtures were installed. 1,936 feet of conductor rail was installed for a total to date of 5,341 feet or 59% complete. 1,075 feet of welding feeder cable was installed for a total to date of 1,200 feet or 13% complete. 19 welding feeder terminations were made for a total to date of 19 or 8% complete.

4.9 Miscellaneous Subcontracts: Service Crane 502: Electrical progress continued on the installation of collector rail. Electrical work is now approximately 95% complete.

Tending Crane 503: Electrical installation continued with the main and [redacted] trolley collectors and rails being installed and connected. Control installation is 100% complete and cable pulling is 95% complete with cable terminations at 60% complete. Millwright work was continued during the period.

Ladle Additive Crane 507: A punch list of remaining work has been issued for this crane.

Maintenance Crane 508: A punch list was issued for remaining work on this crane.

Chicago Bridge and Iron continued welding of the #1 furnace shell which is now approximately 60% assembled. Welding of the last seam is scheduled for completion next period and will be followed by the placing of the two dome sections. The #1 trunnion is completely lined up with preheating coils attached to the seams. Welding is scheduled to start early next period.

At the lab and office building, McGraw Construction Company continued with installation of the first floor masonry wall. Work on the second floor toilet room will start after completion of the fire wall around stair #2. Electrical work continued with overhead conduit being placed and switches and wall outlets set. Installation of conduit runs in the spectographic lab is scheduled to start at the end of next period.

5. 7145 - STRIPPER BUILDING

The stripper building was formally accepted by Armco on May 7, 1968.

6. 7150, 7156 and 7159 - PICKLE AREA

6.2 Concrete: 354 cubic yards of concrete was placed on pickle line 4 during the period for a total to date of 15,140 cubic yards. Major concrete pours included the stairs for #1 and 2 pay-off reel, #2 side trimmer guide, walls for pipe trench at column 19, columns 37 and 36 at the north lean-to and floor slabs between columns 18 and 19. 349 cubic yards of concrete was placed on pickle line #5 during the period for a total to date of 8,544 cubic yards. This concrete included the walls of the wet loop pit, the bottom of #8 electrical manhole and #4 pinch and unfolding rolls. The first floor slab in the pickled coil storage building was placed between columns 46 and 47.

6.3 Structural and Miscellaneous Steel: Progress was restricted to punch list items due to the operating engineers' strike. Handrail anchoring continued at the pickle tank foundations for #5 line and the spiral stairs were installed for the #1 catenary pit on #5 line. Crane 429 (5 tons) was erected in the maintenance aisle.

6.6 Mechanical: Ohio Valley's progress was curtailed by the operating engineers' strike, however, #2 pay-off reel was levelled and aligned and several structural columns were grouted during the period. The [illegible] on #4 line has been aligned and welded to its foundation.

6.7 Piping: Delta Pipeline Constructors continued with prefabrication and installation of pipe in the maintenance room, along F and G columns and #2 pickle tank and plant air service drops. 11,020 feet of piping has been installed to date.

6.8 Electrical: In the green coil storage building, Lake Erie Electric continued progress on the miscellaneous electrical work including the railroad signal lights, heaters, platform lighting and welding panels. All faulty high bay lighting fixtures in the south aisle have been replaced and replacement in the north aisle is presently underway. Progress was initiated on the carrier communication system. In the pickle lines, cable pulling from the #4 motor to the pickled coil storage building is now 25% complete. All welding panels, lighting panels and overhead conduit is complete from columns 13 to 34 on G line. Installation of high bay lighting panel D at column F34 has been completed. Exposed conduit and switches were being installed and #2 and 1 mandrels at the entry end of #4 line.

6.9 Miscellaneous Subcontracts: Stuart Painting Company continued painting of structural steel in the pickled coil storage building ahead of the roofing installation.

Bender Construction continued installation of the rolled steel vent doors along E line.

Goodrich Company continued vulcanizing the joints between the pickle tanks on #4 line.

6. 7160 - COLD MILL

During the period, 11,957 cubic yards of excavation was completed for a total to date of 122,774 cubic yards. This excavation was in the motor room and oil cellar areas. 200 feet of pipe was installed from the dewatering well during the period. The dewatering pump was energized on May 10th.

8. 7186 - WASTE DISPOSAL FOR THE PICKLE FACILITY

209 cubic yards of backfill was completed during the period. The final section of the floor slab on the 107 elevation was formed in preparation for concrete during the next period. Pipe was installed in the sludge tunnel underneath the #1 clarifier and preparations were made for service pipe installation at the 129 foot elevation in the waste disposal building. Excavation for the piers for the elevated pipe between the tank farm and the pickle lines was initiated at the end of the period.

Bilbrey Masonry completed the perimeter masonry walls for the waste disposal building. They will construct the electrical control room after the 132 foot elevation floor slab concrete has been completed. Foothill Electric installed grounding wire on the aisle for tank walkways and on the 132 foot elevation slab in the disposal building. 162 lbs. of structural grounding was installed for a total to date of 1,338 lbs. or 70% complete. 163 lbs. of embedded rigid metallic conduit was installed for a total to date of 9,665 lbs. or 64% complete.

WEEKLY FIELD ACTIVITY REPORT
Week Ending May 14, 1968

8. UTILITIES

7105 - Water Distribution System: Little progress was made during the period by Delta Pipeline due to the operating engineers' strike.

7109 - #2 Gas Dispatching Station: During the period, SK Construction Company continued the excavation for the footing and floor slab.

7110 - Power Distribution: In the melt area switching station, wire terminations were completed for the demand reset and pilot wire circuits. One HFA relay now remains to be installed.

7111 - Sanitary Sewer: In the steelmaking area, Delta Pipeline Constructors continued remedial work as required by the punch list issued last period.

7112 - Drainage and Site Development: 3,462 cubic yards of backfill was placed for a total to date of 1,074,997 cubic yards. Westinghouse Electric continued installation of roadway lighting with five poles being set on circuit #8 from the green coil storage building. Trenching for circuit #7 is complete apart from the crossing on the Lefferson Road entrance road. Cable for this circuit has been laid and backfilled between poles R17 and R10. All poles have been set on circuit #6 and trenching is 60% complete. In the parking lots, the four towers have been set in lot #1 and two towers set in parking lot #2. Work continued by Foothill on the power feeder to the new Oxford State Road guard house.

7113 - Trackwork: DHS Corporation is reducing his manpower due to the operating engineers' strike. Ballast was placed on the tracks west of the B.O.F. during the period.

OAF/LM/sec

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