

INTER-OFFICE MEMORANDUM

TO See Distribution
AT

DATE April 16, 1968

FROM O. A. Finsand
OAFinsand

COPIES TO

AT Middletown Construction

JOB NO. 7100

SUBJECT KAISER ENGINEERS' WEEKLY FIELD ACTIVITY REPORT

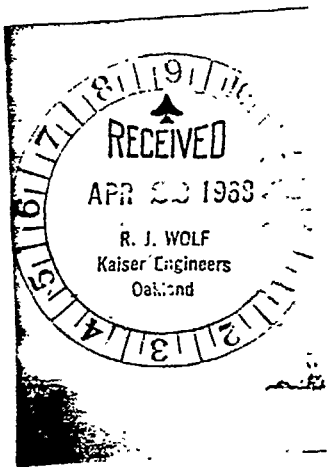
Transmitted herewith is the subject report for the week ending April 16, 1968.

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KAISER ENGINEERS
WEEKLY FIELD ACTIVITY REPORT
Week ending April 16, 1968

WEATHER: Clear weather with some scattered showers.

TEMPERATURE: Maximum - 72 degrees
Minimum - 36 degrees

CLIENT: Armco Steel Corporation

LOCATION: Middletown, Ohio

JOB NUMBER: 6471

JOB VISITORS

W. F. Bort and L. H. Misner

SUMMARY FORCE REPORT

	Kaiser Engineers Exempt	Kaiser Engineers Non-Exempt	Subcontractors	Foothill Electric	Total
Management	4	4		1	9
General Supervision	18	1	20	5	44
Field Engineering	41	15	13	14	83
Warehs. & Mtl. Control	3	6		1	10
Survey	1	14	3		18
Office Srv.& Repro.	1	5			6
Clerical			16	15	31
Craft *	—	775	937	653	2,365
TOTAL	68	830	989	689	2,566

* Average for week of men on payroll.

Average for week of Crafts is as follows:

Kaiser Engineers	715
Subcontractors	892
Foothill Electric	574
Total Crafts Working	2,181

KEN 004363

WEEKLY FIELD ACTIVITY REPORT
Week Ending April 16, 1968

PROJECT PROGRESS

1. 7148 - HOT STRIP MILL

1.3 Structural and Miscellaneous Steel: An average work force of fifteen ironworkers was maintained in the hot strip mill during the period. In the furnace area, progress continued on the punch list items and the return for the extractor dry scale bucket was reworked. In the finisher area, the drains at the pinch roll scalebreaker pits were reworked and progress continued on the scale pit punch list items. An average work force of seventeen sheetmetal workers was maintained during the period. In the furnace area, guards were being installed at the slab reject car, skip hoist and dry scale removal systems. In the runout area, the fume elimination ductwork was being reworked and in the scale pits, guards were installed in the conveyor structure.

1.5 Heating and Ventilating: Bags have now been hung in all bag houses. KE pipefitters have completed rework in bag houses 7, 8, 10, 12 and 14.

1.6 Mechanical: No mechanical work by Eichleay forces was required this period in the hot strip mill area. In the waste heat boiler area, the over-heating of fan bearings continued to be a major problem. At furnace #1, the induced draft and forced draft fan bearings were inspected while the furnace was shut down for refractory repairs. After inspection, these bearings were reassembled under supervision of a Worthington representative and test operations were conducted to both the forced draft and induced draft units. During these operations, the bearings for both units over heated. It was then necessary to remove the bull gear bearings from the #3 induced draft unit as well as the forced draft fan gear drive bearings and install them in the #1 unit. At the close of this period, the #1 furnace was started with the forced draft fan in operation at minimum speed. The bearing replacement for the induced draft fan is in progress. Furnace #2 was operating throughout the period by Armco for heating of slabs used for operations. The dry-out and start-up of waste heat boiler #3 is pending delivery of new fan bearings from the Worthington factory. It was also necessary to replace the #1 forced draft fan governor with the governor from unit #3. The governor for #1 forced draft fan turbine was returned to Worthington for repair.

1.7 Piping: Work has been completed on the additional supports required for the downcoiler hydraulic systems. The vendor's representative for the sump pumps will be on site early next period to start the installation of the new shaft seals for the fourteen pumps which were not reworked in the vendor's shop. Three reworked pumps were received this period.

1.8 Electrical: Foothill Electric Corporation maintained an average work force of one hundred and seventeen electricians in the hot strip mill during the period. Foothill installed 1,680 lbs. of exposed conduit for a total to date of 1,569,870 lbs. or 99% complete. 1,500 feet of low voltage cable was installed for a total to date of 1,977,800 feet or 100% complete. 12 low voltage cable terminations were made for a total to date of 33,308 or 99% complete. 4,000 feet of control cable was installed for a total to date of 2,082,250 feet or 100% complete. 36 control cable terminations were made for a total to date of 63,084 or 99% complete. 1,339 lbs. of lighting conduit and 6,400 feet of lighting wire was installed. 800 feet of communications and TV cable was installed. 180 lbs. of structure grounding was installed for a total to date of 147,492 lbs. or 99% complete. 1,900 feet of computer cable was installed for a total to date of 952,700 feet or 100% complete.

1.9 Miscellaneous Subcontracts: Owens Corning Fiberglas Company maintained an average work force of twelve men on insulation during the period. Progress was continued on the rework items required in the boiler house and in the hot strip mill.

Delta Pipeline Constructors maintained an average work force of twenty men in the hot strip mill during the period. 200 feet of 2 inch well water piping was installed during the period thus completing the supply to the waste heat boiler area. Valves were being re-installed in the oxygen system and weld tie-ins were being completed and nitrogen pressure testing of the scarfing area oxygen piping was started. Delta Pipeline Constructors have been installing the fuel unloading system and pressure testing of the receiving tank will be performed early next period.

Stuart Painting Company maintained an average work force of twelve men in the hot strip mill during the period. Painting continued on the various piping systems, equipment and architectural items.

Salem-Brosius has now completed the design change on the charge end structural steel at furnace #1 and is virtually complete at furnace #3. Charge end design changes on the refractory for #3 unit will be started upon delivery of the material. Installation of cooling water, drains and impulse lines for the #3 unit continued during the period together with the testing of steam, oil and gas lines.

2. 7146 - SLAB MILL

2.1 Excavation and Backfill: 720 cubic yards of excavation was completed for a total to date of 234,447 cubic yards. 192 cubic yards of backfill was made for a total to date of 296,564 cubic yards. This earthwork consisted mainly of requirements for the slab spray cooling system in the slab storage area.

WEEKLY FIELD ACTIVITY REPORT
Week Ending April 16, 1968

2.3 Structural and Miscellaneous Steel: An average work force of eleven ironworkers continued with miscellaneous iron installation in the slab mill. The scale pit gantry crane 364 including the jib unit was completed. Rail plates in the scale pit area was also completed. At column 14.5, erection of a jib crane was started and is expected to complete next period.

2.5 Heating and Ventilating: Bag house 3 was tested and accepted for operations. At bag house 4, a manufacturer's representative is on the job site inspecting the malfunction of the shaker mechanism to establish corrective measures. Test runs were conducted at bag house 5. Design changes were completed for the ductwork in the office area and duct installation was resumed this period.

2.6 Mechanical: Eichleay Corporation maintained an average work force of fifty men on mechanical installation in the slab mill. In the main mill area, the inspection of grease and lubrication for the line shaft continued. All covers are being removed and a thorough inspection made. The installation of speed and position indicating devices is also in progress. In the main mill area, the upper main mill motor base was grouted in place with minor dowelling and alignment remaining. Dowelling of the lower main drive motor was completed and auxiliary equipment installation is in progress. Erection progress continued at the vertical mill main motor on levelling and alignment. The four bearings for the main MG set were removed and cleaned and reinstalled. At the scarfer fume exhaust system, installation of the fan was completed and grouted in place. Progress is continuing on the remaining ductwork in this area. Some modifications were necessary in fitting duct units together.

2.7 Piping: Hunter Corporation maintained an average work force of fifty-two men on slab mill piping this period. Major piping systems worked on during the period were: clarified water, circulating oil system 4, oxygen, steam and grease piping. 898 feet of piping was installed this period for a total to date of 38,073 feet. 15,334 feet remain to be installed. Hydraulic system 2 was made ready for hydro testing which is scheduled for next period.

2.8 Electrical: 5,000 lbs. of exposed conduit was installed for a total to date of 181,800 lbs. or 91% complete. 783 lbs. of structure grounding was installed for a total to date of 32,400 lbs. or 81% complete. 32,700 feet of low voltage cable was installed for a total to date of 339,000 feet or 69% complete. 921 low voltage terminations were made for a total to date of 5,190 or for an adjusted percentage complete of 75%. 7,700 feet of control cable was installed for a total to date of 156,500 feet or 66% complete. 414 control cable terminations were made for a total to date of 4,350 or 43% complete. 3,300 feet of computer cable was installed for a total to date of 47,000 feet or 67% complete. 360 computer terminations were made for a total to date of 3,800 or 84% complete. 470 feet of lighting wire was installed. 1,600 feet of TV and communications material was installed and 176 terminations were made.

3. 7143 - SOAKING PITS

3.3 Structural and Miscellaneous Steel: A work force of fifteen ironworkers installed miscellaneous steel in the soaking pit area this period. After the acceptance inspection of crane 358 on Monday, ironworkers continued with the completion of punch list items in order to finalize their work in this area. Handrail at the skip hoist floor openings were also installed this period. Sheetmetal workers installed the condenser for the control house air conditioner at elevation 136 together with some siding repair work at column 18.5 and E line.

3.6 Mechanical: Loftus Engineering maintained an average work force of one hundred and four men on battery installation. At battery 6, the ramming of final refractory lining was essentially completed at pits 21 through 24. Progress is continuing on the four pits for battery 5. Refractory insulation was completed for two cover pits one of which was set in place over pit 24 thus all refractory requirements for this pit are completed. Progress was maintained throughout the soaking pit area on electrical and piping requirements related to batteries 1 through 5. Preparations are now underway for dry-out, test and start-up on battery 6 which is scheduled for the early part of May. Cover carriages were also test operated in the battery 6 area.

3.7 Piping: Delta Pipeline Constructors maintained an average work force of twenty-four men on service piping in the soaking pit area. Major piping systems worked on were: steam, natural gas, oxygen, well water, fuel oil and bulk grease piping. During the period, 1,245 feet of piping was installed for a total to date of 19,183 feet. 7,628 feet remain to be installed.

3.8 Electrical: 9,000 lbs. of exposed conduit was installed for a total to date of 85,700 lbs. or 61% complete. 3,313 lbs. of lighting conduit, 850 feet of lighting wire and twenty-eight fixtures were installed. 1,800 feet of low voltage cable was installed for a total to date of 29,600 feet or 47% complete. 91 lbs. of structure grounding was installed for a total to date of 4,230 lbs. or 42% complete.

4. 7128 - BASIC OXYGEN SHOP AND MOLD YARD

4.1 Excavation and Backfill: 3,763 cubic yards of excavation was accomplished at the B.O.F. facility this period for a total to date of 207,855 cubic yards. 984 cubic yards of backfill was completed for a total to date of 247,135 cubic yards. Excavation included the initial excavation for the filter building footings and the continuation of the underground conduit in the furnace area and the east wall of the electrical control room. Backfill included the underground conduit at the track hopper and at E line from columns 12 to 16.

4.2 Concrete: 415 cubic yards of concrete was placed at the main B.O.F. facility for a total to date of 19,630 cubic yards. This concrete included the walls and top of electrical manhole 6, the pump building basement slab, track hopper curbs and underground conduit at column 18 and 24. Concrete was also placed on the north wall on the suspended slab between the furnaces.

4.3 Structural and Miscellaneous Steel: 680 tons of structural steel was erected at the main B.O.F. facility for a total to date of 9,483 tons (excluding 328 tons of anchor bolts and base plates). Bolt-up and detailed work progressed during the period and areas are being released for painting, siding and roofing as they are completed. Welding continued on the liner plates in the bins. Several large crane girders were set for cranes 502 and 503 and this work helped the high period tonnage installed. Ohio Valley continued the laying of the floor decking on the operating floor during the period.

4.4 Roofing and Siding: At the main B.O.F. facility during the period, roofing continued with 6,828 square feet being installed for a total to date of 24,710 square feet. Major progress during the period was from column 17 to 24 between D and H lines. Siding installation continued on the freight elevator shaft, the lab and office building and on D line between column 17 and 20. During the period, 9,737 square feet of siding was installed for a combined total to date of 32,448 square feet.

4.6 Mechanical: Combustion Engineering started placing material on the service floor at the end of this period for the assembly of the hoods and coolers.

4.7 Piping: Progress continued on the installation of the roof drains in the charging aisle and the maintenance aisle from column 17 to 20. Storm sewer piping was being installed from manhole 381 to the scrap scale pits. Progress also continued on the installation of the service piping west of the B.O.F. facility and the steam line from the combination valve pit 2 to steam valve pit 5. Crane grease piping installation continued on cranes 502 and 503.

4.8 Electrical: Foothill Electric continued installation of the underground conduit from electric manhole 6 to the electric control room together with the underground conduit between the north wall of the electrical control room and F line at column 24. Installation of underground conduit continued in the pump building. 40 lbs. of structure grounding was installed for a total to date of 2,335 lbs. or for a corrected percentage of 2% complete. 154 feet of crane conductor rail was installed for a total to date of 2,374 feet or 26% complete. 46,000 lbs. of embedded conduit was installed for a total to date of 134,900 lbs. or 47% complete. 3,060 lbs. of exposed conduit was installed for a total to date of 32,400 lbs. or 10% complete. 594 lbs. of lighting conduit and 7,630 feet of lighting wire was installed. 3,000 feet of low voltage cable was installed for a total to date of 12,500 feet or 10% complete.

4.9 Miscellaneous Subcontracts: Charging Crane 501 — This crane is now in operation. The final safety inspection was made on April 12th and final operational check-out on April 15th.

Lance Crane 506 — This crane is now in operation.

Service Crane 502 — Installation of electrical equipment was started on April 11th. Work on conduit junction buses and trolley rails is now in progress. Piping installation continued during the period.

Teeming Crane 503 - Erection of this crane continued through the period and electrical work has not yet started. Installation of piping continued during the period.

Ladle Additive Crane 507 — Parts of this crane have now arrived on site.

Maintenance Crane 508 — This crane is completely erected with bolt-up yet to be completed.

At the lab and office building, McGraw Construction Company placed the concrete slab between columns 4 and 6 during the period together with the concrete in the side walls of acid pit #1. On the second floor, the main duct lines have been installed with progress continuing on the individual room runs. Masonry work along A line will be started during next period with the wall partitions on the second floor to be started near the end of this month.

At the flux material handling system, Rex Chainbelt are scheduled to receive two railroad cars of track unloading hopper material during next period. This equipment will be erected by a lower tier subcontractor, Thelen Construction Company.

David L. Smith have completed the temporary area foundations for CB&I in the charging aisle between columns 17 and 20 for the erection of the furnace vessels. Seven car loads of furnace material have been received but not yet unloaded.

5. 7145 - STRIPPER BUILDING

The final inspection of the stripper building was held on April 16th and a punch list will now be developed. The heat shield was completed during the period together with punch list items on cranes 354 and 356. The heating and ventilating system in the rectifier building is now ready for testing.

WEEKLY FIELD ACTIVITY REPORT
Week Ending April 16, 1968

6. 7150, 7156 and 7159 - PICKLE AREA

6.2 Concrete: 252 cubic yards of concrete was placed on pickle line 4 during the period for a total to date of 13,655 cubic yards. Major concrete pours included floor slabs between columns 17 and 20, the walls for the pipe trenches between columns 26 and 31 and the slab and piers for bag house "A". Encasement of concrete this period was 68 cubic yards. On pickle line 5, 36 cubic yards of concrete was placed for a total to date of 7,586 cubic yards. This concrete was for encasement of conduit.

6.3 Structural and Miscellaneous Steel: At the pickled coil storage building, structural bolt-up continued. The remainder of the top cord steel has now been released for painting. Work continued on the vent, walkway and platforms. At the pickle line, outside access ladders were being set.

6.4 Roofing and Siding: At the pickled coil storage building, 7,746 square feet of roofing was installed for a total to date of 39,140 square feet. In the pickle lines, siding for the maintenance aisle walls was recommenced during the period.

6.6 Mechanical: Ohio Valley continued with the support steel for the pickle tanks on #4 and 5 lines. #5 pickle line is now ready to receive the pickle tanks. On #4 pickle line, three of the pickle tank sections have been field welded and are ready for vulcanizing. Wall plates have been set for the wet loop pit for #4 line and are ready for the side guides and slabs.

6.7 Piping: Delta Pipeline Constructors maintained one crew in the pickle line during the period. The pipe supports along F line have now been completed and 6 inch and 4 inch plant air header pipe is being set. Grease piping installation was continued on crane 406 and was started on crane 407. In the green coil storage building, Norm Woolley continued installing the risers and drops for the 2 inch plant air line. During the period, the oxygen and natural gas lines were tested and repairs to leaks were made in the plant air line. The oxygen and natural gas lines have now been accepted by inspection.

6.8 Electrical: In the green coil storage building, all the lighting panel feeder conduit has been installed on C line. Lake Erie continued the installation of conduit on B line east of column 10 for the high bay lighting. Wire was pulled for the welding panels and the conveyor trenches. In the pickle lines, the remaining electrical gear was being brought into the entry motor room for #4 line. Conduit was run for the high bay lighting in the maintenance and conveyor aisles and wire was pulled for the pickle building high bay lighting. Conduit was installed in the trusses for the welding panel distribution.

6.9 Miscellaneous Subcontracts: FBS Builders continued the masonry walls in the delivery room up to column 34. This contract will continue when the remaining floor slabs for the delivery motor room #4 line have been placed.

Stuart Painting continued painting of the structural steel in the pickled coil storage building.

7. 7160 - COLD MILL

During the period, 18,346 cubic yards of excavation was completed for a total to date of 68,883 cubic yards. All rough excavation work will be held to an elevation 3 feet above those shown on the 70% drawings. The temporary substation has been located in the field and Foothill Electric has received the pole line drawings. Subcontracts are presently being reviewed for piling work to be done at column K 33. Prefabrication of the dewatering well CMP pipe has been started.

8. 7186 - WASTE DISPOSAL FOR THE PICKLE FACILITY

During the period, 123 cubic yards of concrete was placed for a total to date of 2,065 cubic yards. This concrete included part of the floor slab at the 107 elevation. These slabs are now 80% complete. 1,701 square feet of siding was installed for a total to date of 5,373 square feet. Handrail was being installed on the stairs in the building. Preparations of the tank farm pads were being made for setting of the 75,000 gallon fiberglas tanks. Excavation for the second clarifier was started during the period.

International Pollution Control continued drilling for the #2 disposal well during the period. The well has now been drilled to a depth of 2,946 feet.

9. UTILITIES

7105 - Water Distribution System: Delta Pipeline Constructors has excavated for hydrants and tie-ins for well water in the south area. In the steelmaking area, the 8 inch well water line was being rerouted east of the open hearth #2. The piping and hydrant installation is now complete in this area.

7110 - Power Distribution: At the melt area switching station, rough-in work for the relocation of relays and isolating transformers was started at the end of the period. In the hot strip mill, progress continued on the installation of the pulse recorders in the dispatcher's office.

WEEKLY FIELD ACTIVITY REPORT
Week Ending April 16, 1968

7111 - Sanitary Sewers: In the steelmaking area, Delta Pipeline Constructors have repaired a faulty butt joint near manhole 572 and a final inspection is scheduled early next period. Progress continued on the manhole tops in the mold yard area.

7112 - Drainage and Site Development: 2,402 cubic yards of excavation was completed during the period for a total to date of 805,662 cubic yards. 6,110 cubic yards of backfill was placed for a total to date of 1,057,666 cubic yards. Delta Pipeline Constructors continued the installation of manholes on the storm sewer lines and fifteen manhole tops now remain to be completed. Westinghouse Electric Corporation started cable trenching at parking lot #3. Thirteen of the 100 foot towers have been framed and ballast tanks installed.

7113 - Trackwork: DHS Corporation installed 700 feet of track and five turnouts south of existing mold yard and 762 feet of flangeway was installed in the south area during the period.

7114 - Locker Rooms: A final inspection of the steelmaking area locker room is scheduled for April 18th.

OAF/LM/sec

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Approved by D.L. McSparrin
for G. L. Roberts
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