INTER-OFFICE MEMORANDUM

TO / AT: See Distribution

DATE: August 1, 1967

FROM: O. A. Finsand

O.A. Finsand

COPIES TO:

AT: Middletown Construction

JOB NO. 7100

SUBJECT: Kaiser Engineers Weekly Field Activity Report



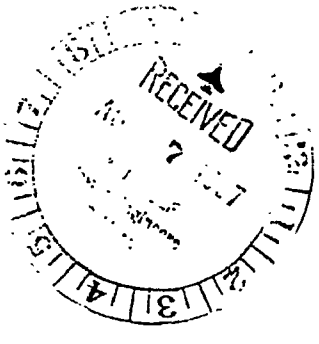
Transmitted herewith is the subject report for the week ending August 1, 1967.

OAF/sec

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KEN 004017

KAISER ENGINEERS

WEEKLY FIELD ACTIVITY REPORT
Week Ending August 1, 1967

WEATHER: Cloudy and clear with heavy showers on Sunday night.

Client: Armco Steel Corporation

Location: Middletown, Ohio

Job Number: 6471

TEMPERATURE: Maximum - 92 degrees

Minimum - 57 degrees

JOB VISITORS

W. Burger, V. Ignatov

SUMMARY FORCE REPORT

	Kaiser Engineers Exempt	Kaiser Engineers Non-Exempt	Subcontractors	Foothill Electric	Total
Management	5	3		1	9
General Supervision	21	2	26	7	56
Field Engineering	42	30	12	16	100
Warehouse & Material Cntrl.	3	10		1	14
Survey	2	25	2		29
Office Service and Repro.		9			9
Clerical			10	22	32
Craft *	___	1,719	999	663	3,381
TOTAL	73	1,798	1,049	710	3,630

* Average for week of men on payroll.

Average for week of Crafts is as follows:

Kaiser Engineers	1,621
Subcontractors	983
Foothill Electric	315
Total Crafts Working	2,919

KEN 004018

WEEKLY FIELD ACTIVITY REPORT
Week Ending August 1, 1967

PROJECT PROGRESS

1. 7143 - HOT STRIP MILL

1.1 Excavation and Backfill: 3,883 cubic yards of excavation was made during the period for a total to date of 1,103,160 cubic yards. 387 cubic yards of slag backfill and 850 cubic yards of other backfill was accomplished for a total to date of 362,623 cubic yards.

1.2 Concrete: 663 cubic yards of concrete was placed during the period for a total to date of 204,051 cubic yards. Major concrete pours were: the mill aisle slab-on-grade between Column 4 and 7, the skip hoist top slab, coil lay-down slab between Column 64 and 67 and the main mill aisle slab-on-grade between Column 52 and 54.

1.3 Structural and Miscellaneous Steel: Erection of bin platform steel and catwalks was continued during the period. This work is now 90% complete. The Clarifier Building louver frame installation is essentially complete. Miscellaneous steel erection was continued at Scale Pits #1, 2 and 3 on stairways and platforms. Platforms and stairways throughout the main mill aisle were also being installed during the period.

1.4 Roofing and Siding: 9,640 square feet of Steelox siding was installed at the Water Clarification Building during the period for an overall Hot Strip Mill total of 619,633 square feet.

1.5 Heating and Ventilating: Progress was maintained during the period on a majority of the fifteen (15) Hot Strip Mill Bag Houses. Bag House #8 is structurally complete and remaining work consists mainly of electrical connections and some punch list items. It is estimated that two (2) more weeks will be required to complete all construction activities for this house. Bag House #9 will require four (4) more weeks to complete remaining construction activities. Structural and electrical work was maintained during the period on Bag House #3 and it is anticipated that this house will complete by the first of September. A special interest is being established to maintain maximum progress on all Bag House work in order to meet scheduled completion for these units. At the Switchgear House, instrumentation has been completed for the air conditioning system. At the Pump House, the air conditioning condenser has been set and piping and electrical connections are now in progress. No progress was accomplished during the period on the Extractor Director Room air conditioning unit. Installation of diffusers is remaining. The R2 Director Room unit, and the Finishing Mill Director Room unit likewise, are waiting on diffuser installations to complete the system. At the Downcoiler Director Room, the air conditioning unit and the duct work has been completed. Remaining work consists mainly of piping and electrical connections. At the Finishing Mill Office Complex, progress was continued on final instrumentation of this unit in order to have it operable by the middle of August. At the Boiler House Control Room, the air conditioning unit was set in place during the period and related duct work is now in progress.

1.6 Mechanical: Eichleay Corporation's progress on mechanical work was extensively affected by the electrical workers walkout which continued from July 25 through 27 inclusive. In addition, twenty (20) Eichleay ironworkers did not report for work on Wednesday and Thursday of this period. Millwright work, however, was maintained during the period on table installation and main mill equipment including the coil conveyors and furnace pushers. Furnace Pusher #1 is installed and remaining work for this unit consists mainly of piping and electrical connections before check out and testing can commence. By the close of this period, Eichleay's work force was in a position to resume good progress with crane service restored and the ironworkers back on the job.

Coupled tests were made during the period at R-3 and R-5 for the third time to satisfy correction requirements. Coupled tests were also accomplished at the vertical scalebreaker for adjustment of current limits and breaker trips.

1.7 Piping: During the period, progress was maintained on all Hot Strip Mill piping systems. The period quantity was 4,385 linear feet of pipe including instrumentation piping for a total to date of 206,189 linear feet. The remaining quantity to complete is now estimated at 137,544 linear feet. Major systems worked on during the period were: grease system, Hydraulic 12, Hydraulic 18, mill high pressure water, natural gas, plant air, steam, chemical systems and instrumentation. Hydro pressure testing was completed on Lube Oil #10 during the period. Hydro pressure testing of Lube Oil #4 is presently in progress. Pickling and flushing has been completed on Hydraulic System 13 and 14 and oil has been installed in Hydraulic System 14 Tank. Grease Systems 6 through 16 have been completed. Hydro testing of the furnace cooling water system is now in progress between the Pump House to the Furnaces and to the oil cellar. Delta Pipeline installed 600 feet of pipe during the period on natural gas, oxygen and plant air in the main mill aisle along Column Line E and D. Delta presently has a work force of 27 men on these systems. This is considerable below schedule requirements and installation is slipping behind schedule.

1.8 Electrical: Foothill Electric Corporation installed 1,100# of embedded conduit during the period for a total to date of 1,487,000#. 19,600# of exposed conduit was installed for a total to date of 1,079,200# or 89% complete. 40 terminations were accomplished on the 2.4 KV power for a total to date of 390 or 94% complete. 40,500 feet of low voltage cable was installed for a total to date of 1,600,000 feet or 68% complete. 1,400 low voltage terminations were accomplished for a total to date of 18,600 or 49% complete. 95,000 feet of control cable was installed for a total to date of 1,258,700 feet or 73% complete. 2,200 control terminations were accomplished for a total to date of 26,200 or 45% complete. 34,800 feet of computer cable was installed for a total to date of 362,900 feet or 45% complete. 700 computer terminations were made for a total to date of 7,800 or 26% complete.

1,300# of lighting conduit and 100 feet of lighting wire was installed during the period. 200# of grounding was accomplished for a total to date 125,500#. The electrical workers did not report for work on Tuesday, Wednesday and Thursday. 50% of the work force returned Friday and by the close of the period the total force was at 546 men.

1.9 Miscellaneous Subcontracts: Bay Construction Company continued painting of the Clarifier Tanks. All tanks have been sand blasted, primed and final painting has been completed to date on Tanks #1, 2, 4 and 6. Tank painting is scheduled to complete on August 15, 1967. The Marley Company is now 90% complete with the Clarification Cooling Tower and 92% complete with the Furnace Cooling Tower. Remaining work on these towers consist mainly of fan cylinder erection. This work is scheduled to complete on August 15, 1967. Chicago Bridge and Iron continued with painting of the fuel oil storage tanks during the period. This painting is scheduled to complete next period. C.B. & I. plan to pressure test and complete the painting of the surge tank next period. Stuart Painting initiated progress this period on the painting of mechanical equipment in the Hot Strip Mill. Arrangements are being made to begin painting of piping systems in the oil cellar as well.

Salem-Brosius installed flue damper equipment supports for Furnace #1. Refractory installation continued on Furnace #1 up-take and waste gas breeching. The Furnace #3 refractory installation was maintained on the lower section walls. The refractory force is now at six (6) men because of workers leaving for other jobs. Furnace piping was continued during the period. The cooling water piping to the dampers for Unit #1 is now 60% complete. Combustion air piping for the three (3) furnaces is 99% complete. Compressed air piping for Furnace #1 is 20% complete. Setting of furnace control panels in the control room was completed during the period. Three (3) local panels were also installed during the period and conduit work was continued throughout the Furnace Area.

Babcock and Wilcox continued with progress on the Boiler House flues, ducts and ventilating system. The #2 induced draft fan house has been set in place and the waste gas stack is 90% erected. The #1 forced draft fan bearing pedestals were installed. Combustion air duct welding on Unit #2 and 3 was continued during the period. This contract is now 95% complete. The combustion air jurisdictional dispute has been settled.

The Mc Piping (Contractor for the Waste Heat Boiler 2½" and over piping) is now 74% complete. During the period, progress was maintained on steam lines, condensate, blow-down lines, gas headers and fuel oil piping to the fuel oil heaters.

Horn Woolley (Contractor for the Waste Heat Boiler 2" and under piping) is experiencing difficulty in obtaining qualified welders to support his piping installation work. Progress during the period consisted mainly of 2" air header pipe at Elevation 166, boiler feed water to the Treatment Tanks, fuel oil piping below Elevation 154, and the 2" pilot gas header at Elevation 173.

Minneapolis-Honeywell continued with installation of trays and tray support at Boiler #1 and 2 and in the main control room. This subcontractor appears to be maintaining follow-up progress adequately at the present time.

Owens-Corning Fiberglas Company continued during the period with insulation of the 165# steam system in the main mill aisle and the Roll Shop. During the period, about 1,000 feet of pipe for this system was insulated. Tank insulation in the Waste Heat Boiler Area is now 60% complete. Pipe insulation to date totals approximately 7,500 feet of pipeline. The fire protection system by Grinnel will be delivered to the job site on August 15 for Systems #1, 2 and 3. Remaining systems will be delivered to the job site in September.

Ohio Valley Riggers have completed 33% of the flocculator equipment in the Clarifier Tanks to date. This subcontractor will continue with installation of mixers and filters in this area on a change order to his present flocculator installation contract.

2. 7146 - SLAB MILL

2.1 Excavation and Backfill: 2,768 cubic yards of on-site backfill and 2,481 cubic yards of purchased backfill were placed for a total to date of 127,842 cubic yards.

2.2 Concrete: 238 cubic yards of concrete was placed for a total to date of 38,982 cubic yards. Major concrete pours were: pipe tunnel slab to E-Line, transfer car #2 walls, motor room fill concrete for motor generator bases and mill office grade beams.

2.6 Mechanical: During the period, Eichleay Corporation continued with motor generator installation. Two (2) additional units were grouted during the period. Alignment and leveling of ingot receiving tables and mill approach tables is in progress. Soleplates were grouted in place for the vertical and horizontal mill bed plates. The bed plates for the horizontal mill are now at the job site and installation will begin next period. 109 tons of Mesta equipment was received during the period for a total to date of 1,544 tons or 20% complete. Items received this period were: slab pushers, horizontal mill bed plates, and ingot receiving table rolls.

2.7 Piping: Hunter (Pipe Contractor for the Slab Mill Piping) during the period continued with fabrication of Lube Oil and Hydraulic Systems for the oil cellar. Hunter is experiencing serious man power shortages and is unable to maintain a balanced working force with the main emphasis placed on a shortage of qualified welders.

2.8 Electrical: Foothill Electric Corporation installed 7,410# of embedded conduit for a total to date of 537,000# or 85% complete. 300# of exposed conduit was installed for a total to date of 4,000# or 3% complete. 500# of copper grounding was installed for a total to date of 9,600# or 79% complete. 700 feet of tray was installed for a total to date of 9,000 feet or 64% complete. 3,500# of lighting conduit and 4,700 feet of wiring was installed during the period. Foothill Electric are presently experiencing a shortage of man power in this area.

2.9 Miscellaneous Subcontracts: Motor room block work is now 90% complete.

3. 7143 - SOAKING PITS

3.1 Excavation and Backfill: 827 cubic yards of concrete was placed for a total to date of 24,560 cubic yards. Major concrete pours during the period were: the ingot buggy track slab between Column 6.5 and 9.5, Battery #2 top lift on the east side, the suspended slab between Column 9.5 and 10.5 at Z-Line and the ingot buggy drive house.

3.4 Roofing and Siding: 1,610 square feet of Steelox siding was installed for a total to date of 47,587 square feet. Roofing for the lean-to structure is scheduled to begin on August 15.

3.5 Heating and Ventilating: During the period, progress continued on installation of ridge ventilator frames and sheeting. This ventilator is now 45% complete.

3.6 Mechanical: Loftus Engineering continued during the period with prefabrication of piping in their south area fabrication shop. Good progress was maintained during the period on furnace binding steel at Battery #5 and 6. Final bolt-up of steel at Battery #6 and some furnace steel for Pit #21 remains to be completed. Flue steel at Battery #5 has advanced sufficiently to allow brick work to commence. Stack #2 refractory work is now 95% complete and Stack #3 refractory work is now 90% complete. Arches for Battery #6 flues are now 50% complete on Pits #24 and 23. Wall refractory for Pits #21 and 22 is now 80% complete. No progress was accomplished on Crane 357 and 358 during the period.

3.8 Electrical: 100# of embedded conduit was installed during the period for a total to date of 50,100# or 65% complete. 900# of high bay lighting conduit was installed for a total to date of 11,300#. 40# of structural grounding was installed for a total to date of 2,070# or 37% complete.

WEEKLY FIELD ACTIVITY REPORT
Week Ending August 1, 1967

4. 7128 - BASIC OXYGEN SHOP

4.1 Excavation and Backfill: 6,422 cubic yards of excavation was made for a total to date of 122,941 cubic yards overall. 264 cubic yards of slag backfill and 1,767 cubic yards of local backfill was made for a total to date of 31,457 cubic yards.

4.2 Concrete: 1,102 cubic yards of concrete was placed for a total to date of 10,063 cubic yards overall. Major concrete pours during the period were: emergency reladling pit walls, Furnace #1 pile cap, pile cap E-26 and 29 and footings H-9 through H-14.

4.3 Structural and Miscellaneous Steel: 113 tons of structural steel was erected at the Mold Yard Building for a total to date of 862 tons. All columns have been erected between Column 24 and 1 and two (2) trusses are erected at the east end.

5. 7145 - STRIPPER

No progress was accomplished at this project during the period.

6. 7150, 7156, 7159 PICKLE AREA

6.1 Excavation and Backfill: Dragline excavation continued along J-Line of the Pickle Storage Building down to Elevation 71 during the period. Excavation for the motor room at the Green Coil Storage Building was completed during the period. Progress was continued on backfill along A-Line of the coil conveyor.

6.2 Concrete: 63 cubic yards of concrete was placed during the period at the #4 Pickle Line Tank foundation. 208 cubic yards of concrete was placed on J-Line footings. The south lean-to footings and grade beams are now complete to Column Line 14.5.

6.3 Structural and Miscellaneous Steel: 232 tons of structural steel was erected at the Green Coil Storage Building for a total to date of 2,1[redacted] tons.

6.4 Roofing and Siding: 10,320 square feet of Steelox siding was installed for a total to date of 50,596 square feet. 2,640 square feet of roofing was installed for a total to date of 20,832 square feet.

6.8 Electrical: The #1 Electrical Manhole is now complete to Elevation 106 and forming of walls is in progress at #2 Manhole. 47,033 feet of conduit has been installed at #4 Pickle Line to date. Crane #405 girders were erected during the period at the Pickle Line Building.

WEEKLY FIELD ACTIVITY REPORT
Week Ending August 1, 1967

7. UTILITIES

7104 - Steam: Punch list items continued during the period on the main underground steam line between Boiler House #2 and the Hot Strip Mill. A final inspection is re-scheduled for next period if compatible dates can be established for all concerned.

7105 - Water - Work Order by McCrew - Water Treatment Plant: At the Water Treatment Plant, pipe and instrumentation work is now complete. Progress during the period by McCrew was mainly related to punch list items, check out and testing of systems. The check out and testing work is now 50% complete. Insulation of the sedimentation tank was initiated during the period. The air compressor installation was completed during the period and pending acceptance.

7109 - Pipeline Work: Progress was resumed by the Delta Pipeline on the 24" coke oven gas line at the west end of the Soaking Pits. 275 feet of 2" hydrogen piping, 200 feet of 10" plant air piping and 350 feet of 10" nitrogen piping was installed during the period east of the Hot Strip Mill.

7110 - Power Distribution: R. H. Bouligny completed Tower #21 foundation and the base slab for Tower #20. Sheet piling for Tower #19 was in progress during the period. These towers will support the 13.8 KV power lines to the mill area substation. At the Cold Finishing Substation, two (2) ground wells were drilled during the period. Progress continued on Transformer #21. Stringing of the 132 KV lines to the Cold Finishing Substation was resumed during the period. Progress on the cable trench for the communication line was temporarily suspended for the period and rerouting is being established before work is resumed.

7111 - Sanitary Sewers: 693 cubic yards of slag fill was made for a total to date of 45,558 cubic yards. All piping and manholes for the original subcontract has been completed. During the period, progress was maintained on underground piping west of Manhole #501 on a change order to the original contract. The City of Middletown inspected and approved the sewer runs, manholes and tap-ins for this work.

7112 - Excavation and Site Development: 15,491 cubic yards of excavation was [illegible] total to date of 401,638 cubic yards. 21,561 cubic yards of [illegible] backfill was accomplished for a total to date of 717,016 cubic [illegible].

7113 - Trackwork: DBE Corporation laid 1,634 feet of track and eight (8) turnouts between Scale Pit #2 and 4 on the east side of the Hot Strip Mill during the period. All related ballast for this track was installed. Total trackwork accomplished to date is 68,969 feet.

WEEKLY FIELD ACTIVITY REPORT
Week Ending August 1, 1967

7114 - Locker Rooms: David L. Smith Construction Company progressed with sub-floor heating and ventilating duct work at the south area locker room during the period. The structural steel erection is scheduled for next period. At the Steelmaking Area, excavation for underground air ducts, drain lines and building footings was completed. Formwork for footings is now in progress.

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Construction Manager

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KEN 004026