



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director



1ID0000120081009

BUTLER

AK STEEL CORP

OSIKA, MARY

2008/10/09



State of Ohio Environmental Protection Agency

Southwest District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 10, 2008

Mr. Kirk Reich, General Manager
AK Steel Corporation
1801 Crawford Street
Middletown, Ohio 45043

**Re: AK Steel Middletown Works, Butler County
Compliance Evaluation Inspection (CEI)
Ohio EPA Permit No. 1ID00001*ID
NPDES Permit No. OH0009997**

Dear Mr. Reich:

On September 16, 2008, I conducted a Compliance Evaluation Inspection at the AK Steel Middletown Works with James Kemp. A copy of my inspection report is enclosed.

All areas evaluated during the inspection were rated as satisfactory, with the exception of effluent/receiving stream was rated as unsatisfactory due to the number of effluent limit violations that have occurred during the period of review. We have received the non-compliance notifications describing these events.

Please see the attached summary of findings/comments and submit a response to these issues within two weeks. You may call me at (937) 285-6101 if you have any questions concerning this compliance evaluation inspection.

Sincerely,

Mary Osika
Environmental Specialist
Mid-Lower Great Miami River Basin Team
Division of Surface Water

Enclosure

cc: James Kemp, AK Steel Corporation



Summary of Findings/Comments

A review of the monthly operating reports submitted by AK Steel for the period of review from September 2007 thru August 2008 showed the following effluent limit violations of the NPDES Permit 11D00001*ID:

<u>Date</u>	<u>Outfall</u>	<u>Parameter</u>	<u>Limit</u>	<u>Reported</u>	<u>Cause</u>
9/5/2007	004	Zinc, T.R.	457 ug/l	570 ug/l	vacuum truck
9/6/2007	004	Zinc, T.R.	457 ug/l	490 ug/l	vacuum truck
7/11/2008	613	Cyanide, T.	10 kg/d	14.8 kg/d	blast furnace
7/12/2008	011	Cyanide, F.	0.092 mg/l	0.2 mg/l	blast furnace
7/12/2008	011	Cyanide, F.	2.92 kg/d	7.95 kg/d	blast furnace
7/12/2008	613	Cyanide, T.	19.8 kg/d	20.1 kg/d	blast furnace
7/22/2008	011	Cyanide, F.	2.92 kg/d	6.4 kg/d	blast furnace
7/22/2008	011	Cyanide, F.	0.092 mg/l	0.19 mg/l	blast furnace
7/23/2008	011	Cyanide, F.	2.92 kg/d	4.69 kg/d	blast furnace
7/23/2008	011	Cyanide, F.	0.092 mg/l	0.15 mg/l	blast furnace

It is understood that there have been additional cyanide violations occurring in September, 2008. The non-compliance notifications have been detailing the steps taken to come into compliance. An updated response to the violations that occurred during the month of September should be submitted to this office regarding any solution found to bring the wastewater at stations 613 and 011 into compliance with the permit.

During the inspection at station 613, a temporary cooling tower and chemical treatment tank was being used to pre-treat the blast furnace pond water prior to the biological treatment system. If these pre-treatment units will continue to be used, a Permit to Install application and detail plans must be submitted to this office in accordance to OAC 3745-42.



Permit # IID00001*ID
 NPDES #: OH0009997



State of Ohio Environmental Protection Agency
 Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1ID00001*ID	OH0009997	9/16/2008	Compliance	State	Industrial

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
AK Steel Corporation – Middletown Works 1801 Crawford Street Middletown, Ohio	7:30 am	October 3, 2002
	Exit Time	Permit Expiration Date
	2:30 pm	October 29, 2002
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jim Kemp, Senior Environmental Engineer	(513) 425-6177	
Name, Address and Title of Responsible Official	Phone Number	
Kirk Reich, General Manager AK Steel Corporation – Middletown Works 1801 Crawford Street Middletown, Ohio 45043	(513) 425-4000	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	N	Laboratory	N	Compliance Schedule
S	Operations & Maintenance	U	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
N	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)

See additional sheet for Summary of Findings.

Inspector	Reviewer
 Date: 10/9/08 Mary Osika Environmental Specialist Division of Surface Water Southwest District Office	 Date: 10/10/08 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office



Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... Y
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... Y
- (g) Notification given to State of new, different or increased discharges..... Y
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

(f) additional treatment currently used at Blast Furnace lagoons at station 613
(g) blast furnace wastewater changed after shutdown

Section F: Permit Compliance

- (a) Any significant violations since the last inspection..... Y
- (b) Permittee is taking actions to resolve violations..... Y
- (c) Permittee has a compliance schedule..... Y
- (d) Compliance schedule contained in
- (e) Permittee is meeting compliance schedule..... N

Comments/Status:

See summary of findings/comments for permit compliance issues.



Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator or dual feed Y
- (b) Adequate alarm system available for power or equipment failures.. Y
- (c) All treatment units in service other than backup units..... Y
- (d) Wastewater Treatment Works classification (OAC 3745-7)..... N/A
- (e) Operator of Record holds unexpired license of class required by permit..... N/A
 Class: I
- (f) Copy of certificate of Operator of Record displayed on-site..... N/A
- (g) Minimum operator staffing requirements fulfilled (OAC 3745-7)... N/A
- (h) Routine and preventative maintenance scheduled/performed... Y
- (i) Any major equipment breakdown since last inspection..... N
- (j) Operation and maintenance manual provided and maintained..... Y
- (k) Any plant bypasses since last inspection..... N
- (l) Regulatory agency notified of bypasses..... N/A
 On MORs and/or Spill Hotline (1-800-282-9378)
- (m) Any hydraulic and/or organic overloads since last inspection..... N

Record Keeping:

- (a) Log book provided..... Y
- (b) Format of log book (i.e. computer log, hard bound book)
- (c) Log book(s) kept onsite (in an area protected from weather)..... N/A
- (d) Log book contains the following:
 - I. Identification of treatment works..... N/A
 - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... N/A
 - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... N/A
 - IV. Laboratory results (unless documented on bench sheets)... N/A
 - V. Identification of person making log entries..... N/A
- (d) Has the operator of record submitted written notification to the permittee, Ohio EPA and (if applicable) any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred..... N/A



Section G: Operation & Maintenance (con't)

Collection System:

- (a) Percent combined system: %
- (b) Any collection system overflows since last inspection..... N/A
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... N/A
- (d) CSO O&M plan provided and implemented..... N/A
- (e) CSOs monitored and reported in accordance with permit..... N/A
- (f) Portable pumps used to relieve system..... N/A
- (g) Lift station alarms provided and maintained..... N/A
- (h) Are lift stations equipped with permanent standby power
or equivalent..... N/A
- (i) Is there an inflow/infiltration problem (separate sewer system),
or were there any major repairs to collection system since
last inspection..... N/A
- (j) Any complaints received since last inspection of basement flooding N/A
- (k) Are any portions of the sewer system at or near capacity..... N/A

Comments/Status:



Section H: Sludge Management

- (a) Sludge management plan (SMP)
Submitted date: _____ Approval #: _____ Not submitted N/A
- (b) Sludge management plan current..... N/A
- (c) Sludge adequately disposed..... Y
(Method: hauled away to sanitary landfill)
- (d) If sludge is incinerated, where is ash disposed of
- (e) Is sludge disposal contracted..... Y
(Name: _____)
- (f) Has amount of sludge generated changed significantly since last inspection..... N
- (g) Adequate sludge storage provided at plant..... N/A
- (h) Land application sites monitored and inspected per SMP..... N/A
- (i) Records kept in accordance with State and Federal law..... N/A
- (j) Any complaints received in last year regarding sludge..... N/A
- (k) Is sludge adequately processed (digestion, pathogen control)..... N/A

Comments/Status:

(d) (e) sludge is deposited in rolloff container and sent to Rumpke Sanitary landfill.

Section I: Self-Monitoring Program

Flow Measurement:

- (a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume Ultrasonic & Weir Weir
Calculated from influent Other (Specify: _____)
- (b) Calibration frequency adequate Y
(Date of last calibration: see below)
- (c) Secondary instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range of flows..... Y
- (e) Actual flow discharged is measured..... Y
- (f) Flow measuring equipment inspection frequency
 Daily Weekly monthly other

Comments/Status:

(b) dates of calibration:

8/27/2008 for stations 803, 004, 015, 002, 8/28/2008 for stations 003, 011
8/11/2008 for station 641, 4/30/2008 for station 631, 4/1/2008 for station 642
5/11/2008 for station 613, 1/23/2008 for station 614



Section I: Self-Monitoring Program (con't)

Sampling:

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... Y
 - (i) Samples refrigerated during compositing..... Y
 - (ii) Proper preservation techniques used..... Y
 - (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y
- (e) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

Laboratory:

General

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (b) If alternate analytical procedures are used, proper approval has been obtained..... Y
- (c) Analyses being performed more frequently than required by permit. Y
- (d) If (c) is yes, are results in permittee's self-monitoring report..... Y
- (e) Commercial laboratory used..... Y
Parameters analyzed by commercial lab and
Lab name: Belmont Labs (all), Test America (pcbs)

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... Y
- (g) Satisfactory calibration and maintenance of instruments/equipment. Y
- (h) Adequate records maintained..... Y
- (i) Results of latest USEPA quality assurance performance sampling program: Satisfactory Marginal Unsatisfactory
Date: Study 27, 10/27/2007

Comments/Status:

(i) Initial study showed not acceptable performance for daphnia magna LC50. Lab performed corrective action and retest was acceptable.



Section J: Effluent/Receiving Water Observations

Outfall Number	Outfall sign in place?	Oil sheen	Grease	Turbidity	Foam	Solids	Color	Other
614	n/a							
613	n/a							
631	n/a							
003	no							
015	no							
005	n/a							
642	n/a							
641	n/a							Fish, frogs
803	n/a							
004	no							
009	no							
002	no							@ Yankee Road
011	no							River low

Comments/Status:

Dicks Creek and Great Miami River looked very low flow.

Section K: Multimedia Observations

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
- (e) Do you notice any unusual odors or strong chemical smells..... N
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:

- (1) What is the cause of the condition?
- (2) Is the observed condition or source a waste product?
- (3) Where is the suspected contaminant normally disposed?
- (4) Is this disposal permitted?
- (5) How long has the condition existed and when did it begin?

Comments/Status:

