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With a letter dated July 1, 2013, Ohio EPA's Division of Materials and Waste Management cited AK Steel in violation of the OAC Rules 3745-55-43 and 3745-55-45 for failing to increase the amount of its financial assurance to cover the increased closure and post closure cost estimates. With this violation, AK Steel is also considered out of compliance with Part I (I) of its UIC permits to operate and must remedy this situation as soon as possible.

The field inspection form is attached to this correspondence. Should you have any questions, please contact Jess Stottsberry of my staff at (614) 644-2752.

Sincerely,



Lindsay C. Taliaferro III

UIC Manager, Division of Drinking and Ground Waters

cc: Bonnie Buthker, Chief, SWDO (w/o attachments)
Jess Stottsberry, UIC Unit Geologist, DDAGW

Notice:

Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your company from having to comply with applicable regulations.



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

July 9, 2013

Katie Kistler:
AK Steel Corporation
1801 Crawford Street
Middletown, Ohio 45043

Re: 2013 Annual Compliance Inspection and Annulus Pressure Test at Deep Well #2

Dear Ms. Kistler:

Ohio EPA's Underground Injection Control (UIC) Unit has completed its assessment of the findings recorded during the June 6, 2013 annual compliance inspection at the AK Steel Middletown Works (AK Steel) facility. The annual inspection was conducted to determine AK Steel's compliance with its two Class I hazardous UIC permits to operate (PTO).

In addition to the annual inspection, an Annular Pressure Test (APT) was performed at Deep Well # 2 as required by Part I (H)(a) of the AK Steel UIC PTOs. The APT was performed on June 6, 2013 under dynamic conditions. The applied test pressure was 410psi and at the end of the one hour testing period, the pressure was 407psi. The final results being within the allowed 3% non-sustained applied pressure change and thus Deep Well #2 passed this portion of the mechanical integrity (MI) testing requirements.

An APT was not performed on Deep Well #1 because it has been shut in since the May 20, 2013 Notice of Violation (NOV) ordering the cessation of injection due to a loss of MI. AK Steel's Deep Well #1 will remain shut in and out of compliance until AK Steel restores and demonstrates MI or it executes the Ohio EPA approved closure plan. AK Steel has complied with the violation cited in the May 20, 2013 NOV by ceasing injection into a well lacking MI and by reporting the loss of MI in accordance with Part I (H)(5) of the AK Steel UIC permits to operate. However, until Deep Well #1 is repaired or properly plugged and abandoned, AK Steel will remain out of compliance with Part I (H) of its permits to operate which mirrors the regulatory language of Ohio Administrative Code (OAC) Rule 3745-34-56(D); "The owner or operator of a class I

hazardous waste injection well shall maintain mechanical integrity of the injection well at all times.”

With a letter dated July 1, 2013, Ohio EPA's Division of Materials and Waste Management cited AK Steel in violation of the OAC Rules 3745-55-43 and 3745-55-45 for failing to increase the amount of its financial assurance to cover the increased closure and post closure cost estimates. With this violation, AK Steel is also considered out of compliance with Part I (I) of its UIC permits to operate and must remedy this situation as soon as possible.

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FIELD INSPECTION COMPLIANCE REPORT

Ohio EPA
Division of Drinking and Ground Waters

Class I Underground Injection Control Program

Date of inspection: 6/6/13

Date of most recent annual inspection: 6/4/12

Date of most recent other inspection: 11/15/12

Specify "other": Semi-annual

Facility Name: AK Steel Corporation

Type of Inspection:

Annual: X

Special/Qtrly:

MIT:

Other:

Well classification:

Hazardous X

Nonhazardous

Number of active wells on site: 2

Active UIC Well Permits Nos:

UIC 05-09-001-PTO-I

UIC 05-09-002-PTO-I

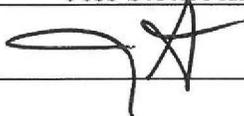
Permit to Operate:

Issuance Date: 05/15/2013

Effective Date: 05/17/2013

Expiration Date: 05/17/2019

Ohio EPA inspector: Jess Stottsberry

Inspector's signature:  _____

Facility representative accompanying inspector: Katie Kistler

Photographs taken? Yes No X

General Comments: Renewal permits issued on 5/15/2013.

| | Yes | No | C# |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|-------|
| <u>Signatory Certification</u> (OAC Rule 3745-34-17 and PTO Part I(E)): | | | |
| 1. Are reports submitted since the last annual inspection signed and certified by an individual specified in OAC Rule 3745-34-17(A) or by a duly authorized representative of that person? | <u>X</u> | _____ | _____ |
| 2. For a duly authorized representative, has authorization been made in writing in accordance with OAC Rule 3745-34-17(B)? | <u>X</u> | _____ | _____ |
| 3. If the duly authorized representative has changed, has new authorization been submitted to the director prior to, or together with, any documents required to be signed by an authorized representative? | <u>N/A</u> | _____ | _____ |
| 4. Within the time frame designated in the permits, has the designated signatory submitted certification stating he or she has read and is personally familiar with all terms and conditions of the permit(s)? | <u>X</u> | _____ | _____ |

Compliance Summary

List violations since previous inspection:

| Description of Violation | Date NOV | Date RTC | C# |
|--------------------------|--------------------------------------|----------|----------|
| | <u>5/20/2013,</u> <u>7/1/2013</u> | _____ | <u>2</u> |

Comment #2

On May 20, 2013, AK Steel was cited in violation for failing to recognize a loss of mechanical integrity (MI) at Deep Well #1 and failing to report and cease injection into a well lacking MI. AK Steel has since reported the loss of MI and ceased injection at Deep Well # 1 but remains out of compliance with OAC Rule 3745-34-56 (D), OAC Rule 3745-34-56(H)(5), and Part I (H) of the AK Steel UIC Deep Well #1 permit to operate. See inspection cover letter for further details.

On July 1, 2013, AK Steel was cited in violation (OAC Rules 3745-55-43 (A)(6) and 3745-55-45 (A)(6)) for failing to maintain an adequate trust fund amount to cover the revised closure and post closure cost estimates.

| | Yes | No | N/A | C# |
|--------------------------------------------------------------------------------------------------------------------------------|----------|-------|-----|-------|
| If applicable, since the previous inspection, has advance written notice of other noncompliance been provided? (PTO Part I(E)) | <u>X</u> | _____ | _ | _____ |

Fees

PTO Part I(K)

OAC Rules 3745-34-16 and 3745-50-34 as applicable

| | Yes | No | N/A | C# |
|--------------------------------------------------------|----------|-------|-------|----------|
| Has the facility submitted the following, as required: | | | | |
| a. Appropriate annual permit fee for all wells? | <u>X</u> | _____ | _____ | |
| b. Appropriate annual disposal fee for all wells? | _____ | _____ | _____ | <u>3</u> |

Comment #3

On June 11, 2013 AK submitted \$60,000 total in permit fees for both injection wells. Ohio EPA's Division of Materials and Waste Management is now invoicing AK Steel for disposal fees.

RCRA

PTO Part II(F); I(J) as applicable

1. For permitted **hazardous waste disposal wells**, did the most recent RCRA inspection cite violations for any of the following hazardous waste rules (OAC 3745-34-09):

| OAC Rule | Type | Violation? (Y/N) | Date RTC'd | Comment # |
|-----------------------------------------------------------------|-------------------------------|---------------------|---------------|-----------|
| 3745-50-40 | Notification | N | | |
| 3745-54-16 | Personnel Training | N | | |
| 3745-54-71 | Manifests & Records | N | | |
| 3745-54-72 | Manifest Discrepancies | N | | |
| 3745-54-73(A),B(1), and B(2) | Operating Record | N | | |
| 3745-54-75 | Annual Report | N | | |
| 3745-54-76 | Un-manifested Waste Report | N | | |
| 3745-55-42 to -51, or 3745-66-42 to -48 | Financial Responsibility | N | | |
| 3745-34-60 and 3745-55-11 to -15 or, 3745-66-11 to -15 | Closure | N | | |
| 3745-34-61 and 3745-55-17 to -20 or, 3745-66-17 to -20 | Post-Closure | N | | |

As applicable, please comment on status of violations that have not been RTC'd.

2. Date of most recent RCRA inspection? 11-18-08 Yes No C#

For wells permitted as **nonhazardous disposal wells**, has hazardous waste been injected since the previous Class I UIC inspection? N/A _____

Well Completion/Construction

PTO Part II(A), Attachment C
OAC Rules 3745-34-37 and 3745-34-54 as applicable

Yes No C#

- | | | | | |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|----------|
| 1. | <u>Have any planned physical alterations or additions to the facility been implemented since the last inspection (including surface facilities, hydraulic fracturing, or other well stimulation)?</u> If yes, please list below: | ___ | <u>X</u> | <u>4</u> |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|----------|

(Inspector: attach most current well diagram to form. Diagram to specify: tubing material, annulus fluid, seal assembly/packer depth, casing shoe depth, liner depth, depth to top of fill, total depth). * Note new "top of fill" depths.

- | | | | |
|----|--------------------------------------------------------------------|-----|-----|
| 2. | If applicable, were reports of these activities submitted on time? | ___ | ___ |
| 3. | If applicable, did the reports contain the required components? | ___ | ___ |
| 4. | Was written notice provided to the Director? (PTO Part I(E)) | ___ | ___ |

(Information gathered while onsite during the inspection has been highlighted as shown.)

Comment #4

Additional filter system added at deep wells. Not on line to date. Well Workover planned at Deep Well #2. 8/15/13 estimated start date.

Well Workovers*

PTO Part II(A) and II(E)

OAC Rules 3745-34-37 and 3745-34-38(D); 3745-34-56(J) and 3745-34-57 as applicable

* Since previous inspection

| Well # | 1 | 2 | | | Comment # |
|----------------------------------------------------------------|---|--------|--|--|-----------|
| WWO Plan submittal date | | 7/3/13 | | | 5 |
| WWO Plan approval date | | | | | |
| WWO Plan, including Ohio EPA field-approved changes, followed? | | | | | |
| Post-WWO Test methods(s)/date(s) (other than MITs) | | | | | |
| Field approval given to return to well service? | | | | | |
| WWO report submittal date | | | | | |
| Report submitted on time? | | | | | |
| Date of report approval | | | | | |

Comment #5

WWO scheduled to begin 8/15/13. Plan approval pending.

Mechanical Integrity Testing*

PTO Part I(H) and II(E)

OAC Rules 3745-34-34, 3745-34-38(B), 3745-37-56(D); 3745-34-57 as applicable

* Conducted since last annual inspection; includes the following: annulus pressure test (APT), radioactive tracer log (RAT), temperature log, noise log, and oxygen activation log (OA)

| Well # | 1 | 2 | Comment # |
|----------------------------------------------------------------|----------|----------|-----------|
| MIT Plan submittal date | 5/3/12 | 5/3/12 | |
| MIT Plan submitted on time? | Y | Y | |
| MIT Plan approval date | 5/15/12 | 5/15/12 | |
| Test Method(s)/Date(s) (Inclusive) | 6/4-7/12 | 6/4-7/12 | |
| MIT plan, including Ohio EPA field-approved changes, followed? | Y | Y | |
| Field approval given to return well to service? | Y | Y | |
| MIT report submittal date | 7/23/12 | 7/23/12 | |
| Report submitted on time? | Y | Y | |
| Report contains required components? | Y | Y | |
| Date of MIT report approval | 9/27/12 | 9/27/12 | |

Ambient Pressure Monitoring*

OAC Rule 3745-34-57(J)(1) and PTO Part II(B)(2)

* Conducted since last annual inspection

| Well # | 2 (2012) | Comment # |
|-------------------------------------------------------------|----------|-----------|
| Type of Test [®] | PFO | |
| Plan submittal date | 5/3/12 | |
| Plan submitted on time? | Y | |
| Plan approval date | 5/15/12 | |
| Reason for test | Annual | |
| Inclusive dates of testing | 6/4-5/12 | |
| Plan followed? | Y | |
| Report submittal date | 7/23/12 | |
| Report submitted on time? | Y | |
| Significant change in reservoir parameters since last test? | - | |
| Date of report approval | 9/27/12 | |

Ground Water Monitoring (GWM)

PTO Parts II(D) and II(E)
OAC Rule 3745-34-38(B); 3745-34-57(J) as applicable
ORC 6111

Yes No C#

Is ground water monitoring required at this facility?

X ___ ___

If yes,

Do facility reports indicate evidence of contamination of USDW caused by injection activity?

___ X 6

USDW Well(s)

Is USDW monitoring required at this facility?

X ___

If yes,

1. Well Number(s)/Name(s) USDW-01
2. Most recently reviewed GWM Report: 2nd half '12
3. Most recently approved GWM Report: 2nd half '12

Comment #6

Based on the information submitted by AK Steel, injection activity does not appear to indicate contamination of the ground water monitoring well.

4. Of the reports reviewed:

a. Was the GWM Plan followed?

X ___ 7

b. Were reports submitted on time?

X ___ ___

Deep Monitoring Well

Is deep monitoring required at this facility?

X ___

Comment #7

Based on the information reviewed, it appears the GWM Plan was followed in its entirety.

Corrosion Monitoring (CM)

PTO Parts II(D) and II(E)
OAC Rule 3745-34-57

| | Yes | No | C# |
|--------------------------------------------------------------------|----------|----------|----------|
| Is corrosion monitoring (CM) required at this facility? | <u>X</u> | ___ | ___ |
| If yes, | | | |
| 1. CM Plan followed? | <u>X</u> | ___ | <u>8</u> |
| 2. Most recently reviewed CM Report: <u>4/11/13</u> | | | |
| 3. Most recently approved CM Report: <u>4/11/13</u> | | | |
| 4. Of the reports reviewed: | | | |
| a. Were reports submitted on time? | <u>X</u> | ___ | ___ |
| b. Do reports contain required components? | <u>X</u> | ___ | ___ |
| c. Were unusual rates of corrosion noted? | ___ | <u>X</u> | ___ |
| 5. Date last coupon removal witnessed <u>Not witnessed to date</u> | | | |

Comment #8

Based on the information reviewed, it appears AK Steel's CM Plan has been followed in its entirety since the last annual inspection.

Seismic Monitoring

ORC 6111.043(B)(5),(6)
OAC 3745-34-57(K) as applicable

Passive Seismicity Monitoring

| | Yes | No | C# |
|----------------------------------------------------------------------|-----|----------|-----|
| Is a passive seismicity monitoring system required at this facility? | ___ | <u>X</u> | ___ |

Closure/P&A & Post-Closure

Parts I(F) or I(G); and I(I)
OAC Rules 3745-34-36; 3745-34-60; 3745-34-61 as applicable

| | Yes | No | N/A | C# |
|-------------------------------------------------------------------------------------------------------------|----------|----|-----|----------|
| 1. <u>Date of most recent closure plan shown during inspection:</u> <u>3/20/91 plan</u> | | | | |
| 2. Is post-closure care required at this facility? | <u>X</u> | | | |
| <u>If yes, date of most recent post-closure plan shown during inspection:</u> <u>7/18/97</u> | | | | |
| 3. Most recent closure & post-closure cost estimates reviewed | | | | |
| a. Date submitted <u>3/27/13</u> | | | | |
| b. Submitted on time? | <u>X</u> | | | |
| c. Cost of Closure <u>\$ 577,249.00</u> | | | | |
| d. Cost of Post-Closure <u>\$ 52,884.00</u> | | | | |
| e. Date Ohio EPA determined closure & post-closure cost estimates acceptable: _____ | | | | |
| 4. <u>Date of most recent closure & post-closure cost estimate shown during inspection</u> | | | | |
| 5. Financial Assurance | | | | |
| a. Type of Mechanism <u>Stanby Trust</u> | | | | |
| b. Date submitted <u>7/9/04</u> | | | | |
| c. Submitted on time? | <u>X</u> | | | |
| d. Date of Ohio EPA approval _____ | | | | <u>9</u> |
| 6. <u>As applicable, was a copy of the financial assurance mechanism shown during the inspection?</u> _____ | | | | |

Comment #9

Notice of Violation issued on July 1, 2013 for failing to maintain a trust fund amount to cover the revised closure and post closure cost estimates.

Waste Minimization

PTO Part II(F) or II(G) or II(H)
ORC 6111.045

| | Yes | No | C# |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|-----|
| 1. Date of latest executive summary submittal: <u>5/17/12</u> | | | ___ |
| 2. Date of Ohio EPA written acknowledgment of completeness: <u>11/5/12</u> | | | ___ |
| 3. <u>Is a copy of the waste minimization and treatment plan available for review and inspection?</u> | <u>X</u> | ___ | ___ |
| 4. For facilities disposing of hazardous waste generated on the premises, has certification pursuant to OAC Rule 3745-34-59(E) been submitted as required? | <u>N/A</u> | ___ | ___ |

WAP

PTO Parts II(D) and II(E)
OAC Rule 3745-34-57

| | Yes | No | C# |
|-------------------------------------------------------|----------|-----|-----|
| 1. Has WAP remained accurate? | <u>X</u> | ___ | ___ |
| 2. Are waste stream analyses representative? | <u>X</u> | ___ | ___ |
| 3. Date of latest revision of WAP: <u>12/11/96</u> | | | ___ |
| 4. <u>Was a copy of the plan shown at inspection?</u> | <u>X</u> | ___ | ___ |

Waste Stream Analysis

| | Yes | No | C# |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|-----|
| 1. <u>Have any process or operating changes occurred that may significantly alter the characteristics of the waste stream? (OAC Rule 3745-34-57(B))</u> | | | ___ |
| <u>If yes, briefly describe the change</u> | ___ | <u>X</u> | ___ |
| <u>Date changes implemented:</u> | <u>N/A</u> | | |
| <u>Date waste stream first sampled after this change:</u> | | | |
| 2. <u>Choose a waste stream sampling event since the previous inspection. Do</u> | | | ___ |

onsite records contain the following information (OAC Rule 3745-34-26(J)(3))?

- | | |
|---------------------------------------------------------------------------------------|----------|
| a. Sampling events reviewed: 4/3/2013 | <u>X</u> |
| b. Date sample collected? | <u>X</u> |
| c. "Exact place" of collection? | <u>X</u> |
| d. Time of sampling? | <u>X</u> |
| e. Name of sampler? | <u>X</u> |
| f. Sampling method? (ref. to WAP is acceptable) | <u>X</u> |
| g. A complete Chain of Custody included? | <u>X</u> |
| h. Date of analyses/measurements included? | <u>X</u> |
| i. Were analytical methods listed in records? | <u>X</u> |
| j. Are analytical methods same as those listed in WAP? | <u>X</u> |
| k. Were analytical results listed in records? | <u>X</u> |
| l. Does original submittal from lab match the analytical results listed in MOR? | <u>X</u> |
| m. Are all parameters sampled that are specified in WAP? | <u>X</u> |
| n. Do sampling and analysis comply with specifications of the WAP? (PTO-Part I(D)(3)) | <u>X</u> |
| o. Name/initials of analyst included? | <u>X</u> |
| p. Laboratory that performed analysis identified in records? | <u>X</u> |

Continuous Monitoring/Recording (Historic)

PTO Part II(E), II(D) as applicable
 OAC Rule 3745-34-26(J) and 3745-34-38(B); 3745-34-56(F) as applicable

| | <u>Yes</u> | <u>No</u> | <u>C#</u> |
|--------------------------------------------------------------------------------------------------------------------------------|------------|-----------|-----------|
| 1. <u>Are continuous monitoring records (e.g. strip charts) retained for each of the months since the previous inspection?</u> | <u>X</u> | | <u>10</u> |
| List months checked: Random 11'12 to 5'13 | | | |

Comment #10

Based on the circlecharts reviewed, it appears that AK Steel has maintained continuous monitoring records and continuous monitoring requirements from 11/11 through April 30, 2013.

2. Continuous Monitoring Records: Evaluation of Permit Limits & Reporting Accuracy

For each of the following two tables choose one or more permitted operating parameters (e.g. max IP, min DP, min AP, max Flow, max pH, max Specific Gravity, etc.) And review continuous monitoring records (e.g. strip charts) for a specified time period (e.g. one day,

one month, etc.).

Permit Limit Exceeded?

For the following table, review continuous monitoring data to determine if permit limit has been exceeded during the time period reviewed.

| <u>Well #</u> | <u>Time Period</u> | <u>Operating Parameter</u> <u>Circle chart</u> | <u>MOR</u> | <u>Values Agree?</u> | <u>C#</u> |
|---------------|--------------------|---------------------------------------------------|------------|----------------------|-----------|
| 1 | 11/6/12 (640am) | AP 300 | 300 | <u>Y</u> | |

Corresponding Data Agree?

For the following table, compare values in the monthly operating report (MOR) to corresponding continuous monitoring data to determine if they agree within an acceptable range of error.

| <u>Well #</u> | <u>Time Period</u> | <u>Operating Parameter</u> | <u>Continuous Mon. Data</u> | <u>Permit Limit</u> | <u>Compliance</u> |
|---------------|--------------------|----------------------------|-----------------------------|---------------------|-------------------|
| 1 & 2 | 2/14/13 | Temp | 126 avg | continuous | Yes |
| 1 | 5/22/12 | Q max | 6 | MOR - 6 90CMAFR | Yes |

According to the records reviewed:

- | | <u>Yes</u> | <u>No</u> | <u>C#</u> |
|--------------------------------------------------------|------------|-----------|-----------|
| a. Has minimum permitted DP (or AP) been maintained? | <u>X</u> | <u>—</u> | <u>11</u> |
| b. Has maximum IP been exceeded? | <u>—</u> | <u>X</u> | <u>—</u> |
| c. Are all required parameters monitored continuously? | <u>X</u> | <u>—</u> | <u>—</u> |

Comment #11

Based on the records reviewed, it appears as if differential pressure was maintained at all times, IP was never exceeded and continuous monitoring was maintained.

According to the records reviewed:

- | | <u>Yes</u> | <u>No</u> | <u>C#</u> |
|--------------------------------------------------------|------------|-----------|-----------|
| a. Has minimum permitted DP (or AP) been maintained? | <u>X</u> | <u>—</u> | <u>—</u> |
| b. Has maximum IP been exceeded? | <u>—</u> | <u>X</u> | <u>—</u> |
| c. Are all required parameters monitored continuously? | <u>X</u> | <u>—</u> | <u>—</u> |

3. a. During periods where continuous monitoring equipment is inoperative, is an appropriate back-up procedure in place? X — —
- b. Please specify method of back-up, frequency of recordings, etc. Continuous computer monitoring and 15

minute manual readings, etc.

Date Verified: 6/6/13

Are monitoring, calibration and maintenance records, original charts from continuous monitoring instruments and copies of required reports maintained for at least five years or for the life of the well, whichever is longer (see below)?

| <u>Document</u> | <u>Date of Oldest Document</u> | <u>Date Verified*</u> |
|------------------------------------------|--------------------------------|-----------------------|
| calibration records | | |
| pH | <u>2003</u> | <u>6/11/09</u> |
| gauge verification | <u>2003</u> | <u> </u> |
| transmitters | <u>2003</u> | <u> </u> |
| maintenance reports | <u>2003</u> | <u> </u> |
| Circle charts (continuous monitoring) | <u>2003</u> | <u> </u> |
| Well # <u>1</u> | <u>2003</u> | <u> </u> |
| Well # <u>2</u> | <u>2003</u> | <u> </u> |
| Well# <u> </u> | <u> </u> | <u> </u> |
| Well# <u> </u> | <u> </u> | <u> </u> |

d. Required Reports (The following reports will be verified during various inspections)

| Well # | | |
|-----------------------|--------------|--------------|
| ---> | 1 | 2 |
| Required Rpts. | | |
| Oldest MOR | 2003 | 2003 |
| Date Verified | 6/11/09 | 6/11/09 |
| Oldest MIT | 2003 | 2003 |
| Date Verified | 6/11/09 | 6/11/09 |
| Oldest WWO | Not reviewed | Not reviewed |
| Date Verified | - | - |
| | | |

| Well # ---> | 1 | 2 |
|---------------------------------|-----------|-----------|
| Required Rpts. | | |
| Oldest Ground Water Mon. Rpt. | 2003 | 2003 |
| Date Verified | 6/11/2009 | 6/11/2009 |
| Oldest Corrosn. Monitoring Rpt. | 2003 | 2003 |
| Date Verified | 6/11/09 | 6/11/2009 |
| Oldest PFO Rpt. | 2003 | 2003 |
| Date Verified | 6/11/2009 | 6/11/2009 |
| Oldest Seismic Monitoring Rpt. | NA | NA |
| Date Verified | - | - |
| Oldest Quarterly Rpt. | 2003 | 2003 |
| Date Verified | 6/11/2009 | 6/11/2009 |

MOR=Monthly Operating Report; MIT=Mechanical Integrity Test; WWO=Well Workover;

Mon.=Monitoring; Rpt.=Report; PFO=Pressure Fall-Off Test

* Visual verification at approximately 5-year intervals

- | | | Yes | No | C# |
|----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|
| 5. | a. | <u>Are copies of records of all data required to complete the permit application form and any supplemental information required under OAC 3745-34-16, maintained for at least five (5) years from the date the application was signed, or the life of the well, as applicable?</u> | | |
| | | | X | |
| | b. | <u>Date Application Signed: 4/3/96 (current permits)</u> | | |
| 6. | a. | <u>Have records concerning the nature and composition of all injected fluids been retained to date? (required to be retained three years after P&A)</u> | | |

Date of Oldest Analysis: 2/12/87 (report date)
Date Verified: 6/25/97

Maintenance & Training (Personnel & Injection System)

PTO Part I(E)
OAC Rule 3745-34-26(E)

A. Personnel

1. Training required by facility for Class I UIC Personnel:

| Type/Name of Training | Job Titles of Trainees | Frequency | Most Recent |
|-----------------------|---------------------------|-----------|-------------|
|-----------------------|---------------------------|-----------|-------------|

| | | | |
|------------------------------------|--|-----------|---------|
| a) Automated System SD for High IP | | As Needed | 3/17/12 |
|------------------------------------|--|-----------|---------|

| | | | |
|---------------------------------------------------------------------|----------|----|----|
| 2. Does this type/amount of training appear adequate for operators? | Yes | No | C# |
| | <u>X</u> | | |

If no, additional training recommended: _____

B. Injection System Maintenance Records

| | | | |
|-----------------------|-----|----|----|
| 1. General Questions: | Yes | No | C# |
|-----------------------|-----|----|----|

| | | | |
|-----------------------------------------------------------------------------------------------------------|----------|--|--|
| a. Do maintenance records specify maintenance performed on injection system since previous inspection? | <u>X</u> | | |
|-----------------------------------------------------------------------------------------------------------|----------|--|--|

| | | | |
|--------------------------------------------|----------|--|--|
| b. Do maintenance records appear complete? | <u>X</u> | | |
|--------------------------------------------|----------|--|--|

| | | | |
|----------------------------------------------------|--|--|--|
| 2. Gauge & Transmitter Calibration or Verification | | | |
|----------------------------------------------------|--|--|--|

| | | | |
|----------------------------|--|--|--|
| a. (Please refer to table) | | | |
|----------------------------|--|--|--|

Gauge & Transmitter Calibration or Verification

| Well # --> | <u>1</u> | | | | <u>2</u> | — |
|--------------------------------------------------------|------------------|----------------------|----------------|----------------------|----------|-----------|
| <u>Calibration/ Verification</u> | | <u>accuracy</u> | | <u>Accuracy</u> | | <u>C#</u> |
| <u>Gauge (IP)</u> | <u>as needed</u> | | | | | |
| <u>Gauge (AP)</u> | | | | | | |
| <u>Transmitter (IP)</u> | <u>3/10/12</u> | <u>0 (20/20)</u> | <u>3/10/12</u> | <u>0</u> | | |
| <u>Transmitter (AP)</u> | <u>3/14/12</u> | <u>0.0%</u> | <u>3/15/12</u> | <u>0 (20/20)</u> | | |
| <u>Transmitter (DP)</u> | <u>n/a</u> | | | | | |
| <u>Transmitter (Flow)</u> | <u>3/14/12</u> | <u>0</u> | <u>3/15/12</u> | <u>0%</u> | | |
| <u>Transmitter (Seal Pot/Annulus Tank)</u> | <u>N/A</u> | | | | | |
| <u>Transmitter (Temperature)</u> | <u>3/15/12</u> | <u>0.0% off</u> | | | | |
| <u>Transmitter (Specific Grav.)</u> | <u>N/A</u> | | | | | |
| <u>Transmitter (pH)</u> | <u>N/A</u> | | | | | |
| <u>IP/AP Recorder</u> | <u>3/14/12</u> | <u>0%</u> | <u>3/15/12</u> | <u>0%</u> | | |
| <u>Flow Recorder</u> | <u>3/14/12</u> | <u>0%</u> | <u>3/15/12</u> | <u>0%</u> | | |
| <u>Temperature Recorder</u> | | | <u>3/15/12</u> | | | |

IP=Injection Pressure; AP=Annulus Pressure; DP=Injection/Annulus Differential Pressure;

calibrated * Wellhead gauges are currently for operational needs only and are not

* Flow meters are also shipped for calibration annually.

b. Calibration or verification frequency

| | <u>Calibration/ Verification Interval</u> | <u>Tolerance</u> | <u>C#</u> |
|---------------------|---------------------------------------------------|------------------|-----------|
| <u>Gauge</u> | As needed | = | |
| <u>Transmitters</u> | Quarterly or as needed | .25% | |

c. Specific Gravity Transmitter/Analyzer:

Method of Verification: N/A

Interval Between Cleanings: N/A

d. pH Transmitter/Analyzer:

Interval Between Clea N/A

Automatic Warning and Shut Down System

PTO Part II(C)
OAC Rule 3745-34-56(F) as applicable

| Date of Last Ohio EPA Witnessed AWS D Test | | | |
|--------------------------------------------|----------|----------|------------------|
| Well # ----> | 1 | 2 | Comment # |
| Date Witnessed | 11/15/12 | 11/15/12 | |
| Date Approved | 11/15/12 | 11/15/12 | |

| <u>Current Warning & Shut-Down Set Points</u> | | | | | |
|---------------------------------------------------|-------------|------------|------------|------------|------------|
| <u>Well #</u> | <u>1</u> | | <u>2</u> | | <u>C #</u> |
| <u>in psi*</u> | <u>W</u> | <u>SD</u> | <u>W</u> | <u>SD</u> | |
| <u>High IP</u> | <u>95</u> | <u>95</u> | <u>95</u> | <u>95</u> | |
| <u>Low DP</u> | <u>none</u> | | | | |
| <u>Low AP</u> | <u>195</u> | <u>195</u> | <u>195</u> | <u>195</u> | |

Field Readings

PTO Part II(C) and Attachment D

OAC Rule 3745-34-38(A); 3745-34-56(A),(C) as applicable

Required operating parameters, recorded on the day of the inspection, at wellhead gauges, computer, and strip chart(s) are listed on the site-specific form (attached).

AK Steel Corporation - Middletown Works - Control Room and Wellhead Readings

Date: 6/6/13

WELLHEAD AND CONTROL ROOM READINGS:

| Well # | Injection Pressure (psi) | Annulus Pressure (psi) | Flow Rate (gpm) | Temperature (°F) | Time of reading |
|---------------------|--------------------------|------------------------|-----------------|------------------|-----------------|
| 1 (Well house) | 0 | 220 | N/A | | 1045 |
| 1 (Digital Display) | -1 | 218 | 0 | 130 | |
| 1 (Circle Chart) | -1 | 220 | 0 | 122.5 | |
| 2 (Well house) | 67 | 410* test | | | |
| 2 (Digital Display) | 62 | 404 | 7 | | |
| 2 (Circle Chart) | 62.5 | 412 | 7 | | |

TOTALIZER READINGS:

| Well # | Volume (gallons) |
|--------|------------------|
| 1 | - |
| 2 | - |

| Well # | Annulus Pressure (Downstairs Digital Display - psi) | Time of reading |
|--------|-----------------------------------------------------|-----------------|
| 1 | 224 | 1115 |
| 2 | 406 | a/a |

Sight glass Readings

Well #1 – 31.5"

Well #2 – 35.75"