



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

May 20, 2013

Mr. Dale Rupp
Acting General Manager
AK Steel Middletown Works
1801 Crawford Street
Middletown, Ohio 45043

Re: NOTICE OF VIOLATION – Loss of Mechanical Integrity at Deepwell
Number 1

Dear Mr. Rupp:

Ohio EPA has determined that Class I hazardous waste injection well Deepwell Number 1 at the AK Steel Middletown Ohio Facility has lost mechanical integrity as defined in OAC 3745-34-34(A) and that injection of fluid into Deepwell Number 1 must cease in accordance with Part I(H)(5) and OAC Rule 3745-34-56(H)(1). AK Steel is in violation of failing to determine/recognize the loss of mechanical integrity and failing to cease injection per Part I (H)(5) of the current permit and OAC 3745-34-56(H).

Pursuant to Ohio Administrative Code (OAC) Rule 3745-34-34:

(A) An injection well has mechanical integrity if:

- (1) There is no leak in the casing, tubing or packer during operation; and
- (2) There is no fluid movement into an underground source of drinking water through vertical channels adjacent to the well bore.

Based on the information provided on May 14, 2013 representing the April 2013 Monthly Operating Report (MOR), Ohio EPA noted that AK Steel added 55 gallons of Pacemaker 68 oil to the annulus tank on April 15th, 110 gallons added on April 25th, and another 55 gallons were added on April 30th. On May 15th 2013, Ohio EPA requested AK Steel provide additional annulus level data for the first half of May. On May 16, 2013 AK Steel representatives indicated another 55 gallons of oil was added to the annulus tank on May 15th 2013.

May 20, 2013

Notice of Violation

From April 15 to May 15, 275 total gallons were added to the annulus tank at Well Number 1 for an approximate average daily loss of nine gallons per day.

In addition, review of annulus fluid levels and total annulus fluid volume as recorded on the table on page 17 of the April MOR and the similar data from the March MOR indicate the annulus fluid levels and volumes have been decreasing at a fairly constant rate since the middle of March in Deepwell Number 1.

Based on the above information Ohio EPA has determined that there is an annulus leak via the casing, tubing or packer in Deepwell Number 1 and therefore a loss of mechanical integrity per OAC 3745-34-34(A).

AK Steel failed to make this determination that mechanical integrity was compromised based on the same data and is in violation of Part I (H)(5) of the current permit and OAC 3745-34-56(H) for failure to cease injection. AK Steel shall not inject into Deepwell Number 1 until such time as the mechanical integrity of the well is re-established and demonstrated.

Should you have any questions, please contact either myself or Jess Stottsberry at (614) 644-2752.

Sincerely,



Lindsay C. Taliaferro III, Manager, DDAGW

cc: Michael G. Baker, Chief, DDAGW
Michael Eggert, Assistant Chief, DDAGW
Kimberly Rhoads, Legal