

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DATE: **JUN 16 2014**

SUBJECT: Kinder Morgan Arrow Terminals Holdings, Inc.

FROM: Alexandra Letuchy, Environmental Engineer
Air Enforcement and Compliance Assurance Section (MI/WI)

Patrick Miller, Environmental Engineering
Air Enforcement and Compliance Assurance Section (MN/OH)

THRU: Sarah Marshall, Chief *SM*
Air Enforcement and Compliance Assurance Section (MI/WI)

TO: File

1. INSPECTION OVERVIEW

Name

Kinder Morgan Arrow Terminals Holdings, Inc. ("Kinder Morgan")

Location

2926 East 126th Street.
Chicago, Illinois 60633

Inspection Date

June 10, 2014

Attendees

Alexandra Letuchy, EPA, Environmental Engineer
Patrick Miller, EPA, Environmental Engineer
Jeremy Doss, Kinder Morgan, EHS Specialist
Daniel LoGreco, Kinder Morgan, EHS Manager
Steve Caudle, Kinder Morgan, Terminal Manager
Jeff Wilson, Kinder Morgan, Plant Superintendent
Ken Grzywana, Kinder Morgan, Customer Service Manager

Company Contact

Daniel LoGreco
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Steve Caudle
Terminal Manager
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Company Overview

Kinderg Morgan ("the facility") owns and operates a ferro terminal in Chicago, Illinois that provides storage services, barge/truck/rail loading and unloading, and ferroalloy screening, crushing, and packaging services. The facility was bought by Kinder Morgan from Arrow Terminals in 2004. Currently, the facility mainly operates Monday through Friday, 7:00am to 3:30pm.

Environmental Justice

The EPA uses a nationally consistent environmental justice screening tool (EJSCREEN) to identify areas with potentially disproportionately high environmental and public health burdens. It combines a set of indicators in the categories of health, environment, and social demographics, to identify, in an analytically rigorous and consistent manner, potential disproportionately and adversely affected areas. According to the EJSCREEN, Kinderg Morgan is located in an EJ area.

Arrival and Opening Conference

We (Patrick Miller and Alexandra Letuchy of EPA) arrived at Kinderg Morgan, located in Chicago, Illinois at approximately 9:45 AM on June 9, 2014. We parked our vehicle East of the facility to watch front loaders dump ferroalloys into the crusher or screening bin. We witnessed the dumping of ferroalloys into the crusher bin. Emissions from the crusher and screening are vented to two dust collectors. We saw some visible emissions during dumping, but a majority of emissions were vented into the building. Next, we proceeded to the Northeast of the facility to watch barge unloading for approximately 30 minutes. We watched two barges unload and saw no visible emissions. We also saw an outdoor screening operation that produces no visible emissions. A watering truck came by at 10:15 AM and sprayed the ground (paved and gravel) along the barges. The ground was still wet from the previous unobserved spraying. We took 6 pictures and 1 video during the offsite observations. We left the facility at 10:22 AM and returned at 1:25 PM for an onsite inspection. We entered at the customer entrance and asked the secretary if we could speak with a Plant Manager or an Environmental Manager. Steve Caudle, Terminal Manager, met us at the main entrance. We stated the purpose of our visit was to determine the facility's compliance with the Clean Air Act (CAA). We introduced ourselves, showed Mr. Caudle our credentials, and asked to move to a conference room.

In the conference room, we watched a visitor and safety video. The video stated that respirators should be worn in the screening/crushing building and the packaging building. Once the video was finished, we were joined by Jeremy Doss, EHS Specialist, Daniel LoGreco, EHS Manager, Jeff Wilson, Plant Superintendent, and Ken Grzywana, Customer Service Manager. We told the Kinderg Morgan personnel that we wanted them to give us a process based overview of the operations at the facility and take us on a plant tour. We informed him that we would end the inspection with a closing conference. We said that we would generate an inspection report, but the report would not contain a compliance determination. We asked for a copy of their operating permit. Mr. Caudle provided us with a Registration of Smaller Sources (ROSS) permit issued. Mr. Caudle explained that the facility operated under a Lifetime Operating Permit prior to switching to the ROSS permit the last quarter of 2012. They qualify for the ROSS permit because they emit less than five tons of emissions per year. We asked what material they were unloading from the barge earlier in the day and they stated they were unloading proppant sand.

Process Overview

Materials Stored and Processed

Kinder Morgan stores and handles bulk ferro alloys, pig iron, finished steel products, and packaged products for the steel industry. Approximately 75% of the material coming into the facility is bulk ferro alloys, 15% is pig iron, and the remainder is finished steel products and packaged products. Certificate of alloy chemistry comes in with most, but not all, ferroalloy shipments. A majority of the material, approximately 98%, are brought to the facility via barge, and the rest via truck. Scales are used throughout the facility to weigh the materials coming in and out.

Unloading Barges

An excavator scoops the material from the barge and discharges it into an in-plant truck. A barge shipment contains 14,000 – 15,000 tons of material, while an in-plant truck hold only approximately 20 tons of material. The facility receives 200 – 400 barge shipments per year and the dock can hold up to two barges simultaneously. The in-plant truck drives the material from the barge unloading area to a storage area. Water spraying is used to minimize emissions during unloading of pig iron and finished steel products. Because moisture in ferroalloy piles can lead to explosive conditions when used at the steel plants, no water spraying can be used during the unloading of ferroalloy. Wind socks located to the east and west of the loading dock are used to determine wind direction. Kinder Morgan personnel stated that these are used to inform operators of conditions that could lead to dust crossing the property line. Mr. Caudle provided a copy of a map showing the locations of the wind socks.

Storage Areas

Ferro alloys are stored inside buildings, while pig iron is stored outside in large piles. Kinder Morgan personnel explained that due to the size and density of the pig iron pieces, pig iron can be stored outside without causing a fugitive emissions issue. The facility also wets down the pig iron to prevent any emissions. They also explained that the ferroalloys are stored inside because they cannot be wetted down and are weather sensitive.

Processing (Crushing and Screening)

Ferroalloys that need to be reduced in size or sorted are crushed and screened in the processing area. A front loader dumps ferroalloys into one of two bins. The crusher bin is located on the east side of the building and the screening bin is located just west of the crusher bin. When ferroalloys are loaded into the crusher bin, the material is crushed, and then moved on an enclosed conveyor to the screening decks. After screening, the material is then transported to the storage areas by front loaders. Ferroalloys that only need screening bypass the crusher and are conveyed to the screen deck. Kinder Morgan personnel estimated that only 5,000 – 6,000 tons of ferroalloy are processed monthly. Emissions generated during dumping, crushing, and screening are controlled by two dust collectors (West Crusher Dust Collector #2 and East Crusher Dust Collector #3), installed in 2009. Kinder Morgan personnel were unable to tell us the acfm specs for the Dust Collectors, but told us they could provide this at a later time.

Packaging

Some of the ferroalloys brought to the facility and processed at the facility are packaged into either 3,000 – 4,000 lbs super sacks in the Packaging Building/Building E or into 25 – 50 lbs bags pallets in the 100 Building/Building H. Building E is controlled by a dust collector, installed in 2009 (Building E Dust Collector #1). Building H is controlled by a dust collector installed in 2011 (Building H Dust Collector #4).

Loading Trucks and Rail

Materials are sent out predominately by truck, some by rail, and very infrequently by barge. Front loaders are used to load the materials into trucks in the Building F Breezeway. There are no emission controls in

this area. The facility has already designed and plans to install dust collectors in this area, in order to comply with the new Chicago ordinance regarding petcoke and bulk commodity storage piles. Rail cars are loaded outside, in between Building E and Building F. Materials are front loaded into a hopper and then conveyed on an open conveyer into the rail car. Shoots extend into the car to minimize emissions. If the material can be wetted down, water may be used to minimize emissions.

Maintenance and Recordkeeping for Dust Collectors

Kinder Morgan performs daily and monthly maintenance inspections on their dust collectors and keep logs of these inspections. Copies of the daily inspection logs for the first three weeks of April 2014 for Building E Dust Collector #1, West Crusher Dust Collector #2, and East Crusher Dust Collector #3 were provided. The daily inspection logs for the first half of August 2013 on Building H Dust Collector #4 was also provided. Inspectors record differential pressure and visible stack emissions in the logs. Kinder Morgan personnel told us that the facility has set alarms on the differential pressure monitors and the dust collectors purge automatically once differential pressure builds up. Facility personnel stated that no visible emission issues have been identified. Collected dust from the dust collectors is landfilled.

Fugitive Emissions

Fugitive emissions at the facility are controlled by using a street sweeper and water truck. Due to city regulations, the facility operates the street sweeper four hours per day. Additionally, the facility operates a water truck, as needed.

2. SITE TOUR

We started the site tour at 2:30 PM. We told Kinder Morgan personnel that we would be taking photographs during the inspection. During the inspection, we took 14 photographs.

Kinder Morgan personnel walked us down the east side of the facility and identified the crusher bin on the eastern end of the Processing Building and the screener bin just west of the crusher bin. They pointed out the Building H Dust Collector #4. We walked onto the barge loaded dock and saw that barge loading had ended for the day. Next, we proceeded inside Building H. Although the building has been equipped with a dust collector, doors are kept open and fans within the walls of the building are run to provided proper ventilation. Building H was not operating during our visit. We also asked to walk through the crushing and screening building. The process conveyor belt was shutdown for our walk through. Inside the building, Kinder Morgan personnel showed us three small pickup points in the screening room and two pick up points in the crusher room. There were layers of particulate covering the walk ways, walls, and equipment.

Next, we walked toward the west side of the facility and saw rail loading as we approached Building F. There were some visible emissions from rail loading visible across the property. As we got closer and rail loading ceased, emissions dissipated. There was a pile of aggregate/slag next to the rail loading area. Facility personnel explained the open conveyor used to take the material from the rail loading bin to the rail car will become enclosed due to the new Chicago ordinance regarding petcoke and bulk commodity storage piles. We proceeded into the Breezeway of Building F to see truck loading. First, we saw truck loading on the west end of the building. There were significant visible emissions during the first loading, some of which may have exited the building. Then we witnessed truck loading on the eastern side of the building. The second truck loading was a finer material and created more visible emissions. We did not see visible emissions exiting the building to the south. We asked Kinder Morgan personnel to walk through the ferroalloy building to get an idea of the variation in size of the material. We noted huge variations during our walk through, ranging from 2"x4" material to dust.

Closing Conference

At approximately 3:30 PM, we went back to the conference room for a closing conference. Kinder Morgan personnel stated that dust collection in Building F was probably in next year's budget and told us that they are working with the City of Chicago to comply with the ordinance. They explained that the new overhead doors have already been installed on the building and that they will be closed during loading once the dust collectors are installed. They also stated that they were submitted a new fugitive dust plan and plan to pave two portion of the yard that are currently unpaved. We asked why the pet coke ordinance applies to the facility and they explained that they were pulled in because they process bulk commodities. They stated that they do not plan to move their outdoor piles inside, but may need to put up wind barriers. We explained that if we had additional questions, we may follow-up the inspection with a CAA Section 114 Information Request. We told them that they could contact us directly for a copy of the inspection report within 8 weeks after the inspection. We explained that if we discussed anything that they considered confidential business information (CBI), they should let us know and we would treat it as such. They did not claim anything as CBI. We thanked them for their time. We left the plant at approximately 3:45 PM.