


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

77 West Jackson Boulevard
Chicago, Illinois 60604

DATE: AUG 26 2014

SUBJECT: INSPECTION REPORT – S.H. Bell Company, Chicago, IL

FROM: Katie Owens, Environmental Engineer
Air Enforcement and Compliance Assurance Section, (IL/IN)

THRU: Nathan A. Frank, Chief 
Air Enforcement and Compliance Assurance Section, (IL/IN)

TO: File

Date of Inspection: May 19, 2014

Attendees: Katie Owens, Environmental Engineer, U.S. EPA
Molly Smith, Environmental Scientist, U.S. EPA
Katy Bellairs, Environmental Engineer, U.S. EPA
James (Jim) M. Langbehn, Terminal Manager, S.H. Bell Company

Purpose of Inspection: The purpose of conducting a second inspection of S.H. Bell was to determine compliance with their permit and various Illinois State Implantation Plan (IL SIP) requirements, including fugitive dust crossing the property boundary and opacity exceedances. We brought a Method 9 certified reader, Katy Bellairs, with us to read opacity off S.H. Bells' stockpiled materials.

Company Description and Background:

Location: 10218 South Avenue O, Chicago, Illinois

Primary Contact: Jim Langbehn, Terminal Manager

S.H. Bell is a bulk material storage handler that receives bulk materials via truck, rail and barge.

Facility Tour and Method 9 Observation

Molly Smith, Katy Bellairs and I (we) arrived at S.H. Bell (SHB) at approximately 10:50 am. Upon entry, we presented our credentials to the receptionist and explained that we were at SHB for an unannounced Clean Air Act (CAA) inspection. We asked to speak with Jim Langbehn, Terminal Manager, so that we could tour the facility. The receptionist stated that Mr. Langbehn would arrive in about 10 minutes. While waiting in reception, we asked when SHB stops for lunch breaks. The receptionist stated that unloading would occur all day and lunch breaks occur from 11:45 – 12:30 pm.

Once Mr. Langbehn arrived, we said hello and asked to be taken to the yard. We asked how many barges SHB would be unloading that day. Mr. Langbehn stated that 3 barges would be unloaded over the course of the day. We noted that barge unloading stopped at 10:57 am. Mr. Langbehn stated that the operators were doing a “crappy job” which is why he directed operations to cease until a water truck was present to water the material being unloaded.

Walking by SHB’s crusher, we asked when it would be operated. Mr. Langbehn stated that the crusher was currently broken, and had been down since Saturday. We noted broken and missing flaps on the crusher building. While walking around the yard we noted that the roads had been recently watered. We asked Mr. Langbehn to state when the roads were watered that morning. Mr. Langbehn stated that the roads are first watered from 9-10 am, the second watering would occur at 1:30 pm. He also stated that a sweeper circles the facility at 3:30 pm.

We asked Mr. Langbehn to describe SHB’s normal work hours and lunch breaks. Mr. Langbehn stated that SHB operates from 7 am – 3 pm and normally has employees take lunch breaks between 10 am – 12 pm. Mr. Langbehn stated that the last few weeks at SHB have been busy due to the arrival of 12 – 13 barges. He stated that later that week 5 more barges would arrive for unloading.

We walked around the yard so Ms. Bellairs could determine where she could begin taking Method 9 readings. We observed watering onto stockpiles in SHB’s yard along with wet roads (Photo 1, 2, 3). We continued walking around the yard and next observed truck loading operations in Building 7 (Photo 4). At 11:21 am we walked to the barge slip to observe direct reduce iron material (DRI) being unloaded (Photo 5). Barge unloading resumed at 11:31 am.

Ms. Bellairs began her Method 9 readings at 11:33 am from north of Building #3 (Photo 6, 7). She observed unloading of DRI from Trinidad. Mr. Langbehn stated that the DRI can be watered without compromising the product. At 11:34 am I observed the roadway being watered (Photo 8).

I asked Mr. Langbehn how often SHB performs roadway watering. Mr. Langbehn stated that SHB waters its roads twice each hour.

We asked Mr. Langbehn if SHB had any restrictions for storage of its stockpiled materials. Mr. Langbehn stated that the City of Chicago had recently passed a regulation that would limit SHB's use of the slip north of Building #3. SHB filed a variance request with the City of Chicago and is allowed to store its stockpiled materials on its slips until the variance application is approved or denied.

Mr. Langbehn stated that today's barge unloading is unusual, since SHB only unloads barges to outdoor piles twice per year.

During Ms. Bellairs Method 9 readings, Ms. Smith and I observed visible emissions coming off the stockpiled material and from inside the barge (Photo 9).

We noted roadway watering again at 11:52 am. Ms. Bellairs completed her first Method 9 reading at 11:55 am. Ms. Bellairs took the second Method 9 readings at 11:56 am. Ms. Bellairs finished the second Method 9 readings at 12:07 pm.

We asked if SHB had plans to install air monitors. Mr. Langbehn stated that SHB determined that it would cost about \$ 350,000 and would cost an additional \$70 – 80,000 for annual maintenance. Mr. Langbehn stated that this cost would likely cause SHB to reduce its workforce or close the location.

We thanked Mr. Langbehn for his time and asked if he would like to claim anything that we observed today as confidential business information (CBI). Mr. Langbehn stated that he did not wish to claim anything as CBI.

We left the facility at 12:13 pm.

Photos



Photo 1. IMG_0346 at 11:04 am: Two USEPA inspectors walking toward SHB's water truck, watering stockpiled material.



Photo 2. IMG_0347 at 11:05 am: SHB's watering truck onsite watering stockpiled material. SHB's water truck was onsite for the entirety of our inspection.



Photo 3. IMG_0348 at 11:11 am: SHB watering a DRI pile.



Photo 4. IMG_0349 at 11:22 am: Truck loading operations in Building 7. Note the fugitive dust escaping the enclosure.

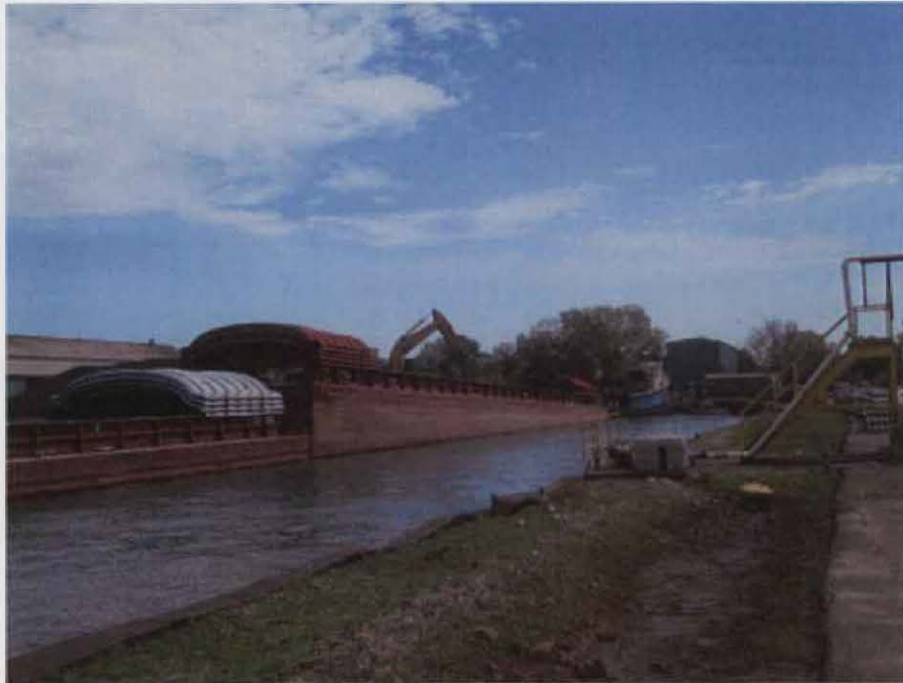


Photo 6. IMG_0351 at 11:30 am: Barge unloading of DRI during the inspection.

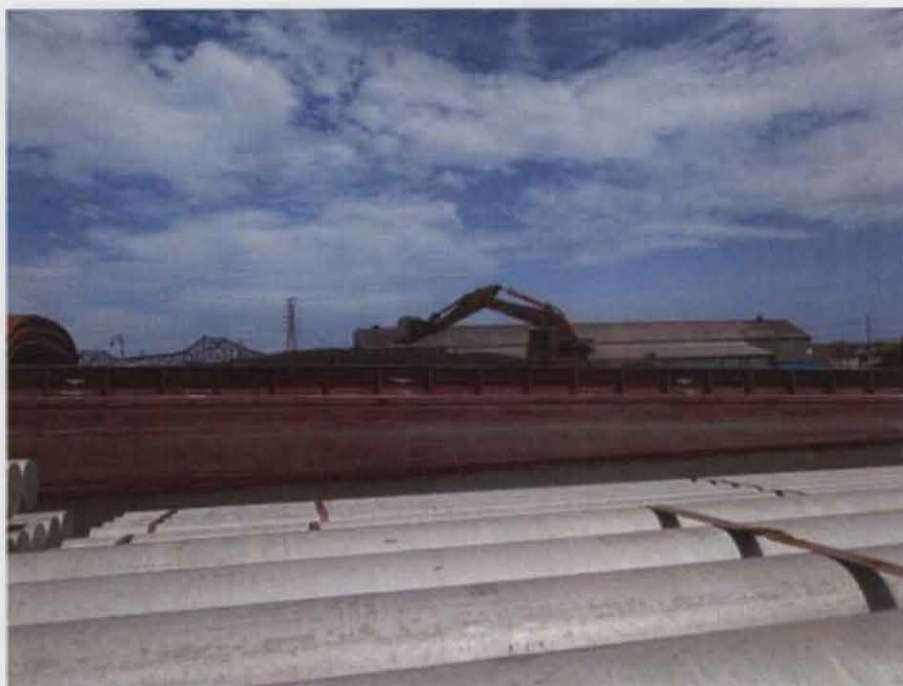


Photo 7. IMG_0352 at 11:32 am: USEPA perspective for Method 9 readings during barge unloading operations of DRI.



Photo 8. IMG_0355 at 11:36 am: Frequent roadway watering during the inspection.



Photo 9. IMG_0356 at 11:36 am: Fugitive dust leaving the DRI pile during the Method 9 readings.

VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME
SH Bell

LOCATION
10218 South Ave O

CITY STATE ZIP
Chicago IL 60617

PROCESS EQUIPMENT OPERATING MODE
Barge, P Road Operating

CONTROL EQUIPMENT OPERATING MODE
none

DESCRIBE EMISSION POINT
**Road way for 1st Reading
Barge/Barge Pile 2nd Reading**

HEIGHT ABOVE GROUND LEVEL WEIGHT RELATIVE TO OBSERVER
15' START 10' END 10'

DISTANCE FROM OBSERVER DIRECTION FROM OBSERVER
START 25' END 25' START N END N

VERTICAL ANGLE TO PLUME HORIZONTAL ANGLE TO PLUME
35° 10°

DESCRIBE EMISSIONS
START **Black Dust** END **Black Dust**

EMISSION COLOR IF WATER DROPLET PLUME
START **Black** END **Black** ATTACHED DETACHED NA

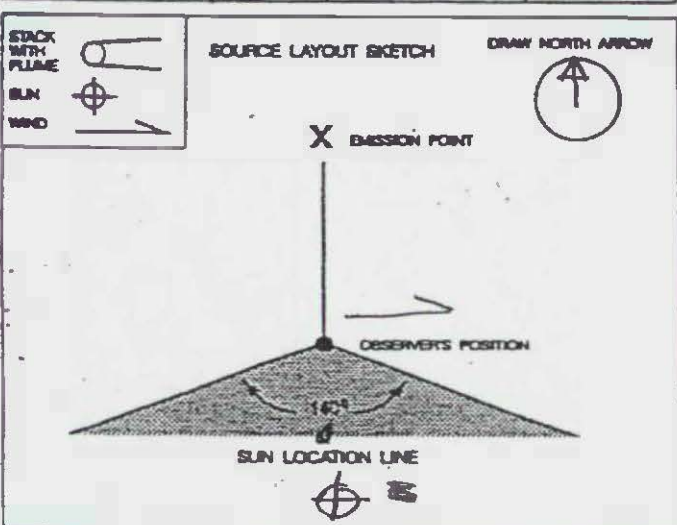
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED
START **middle** END **middle**

DESCRIBE PLUME BACKGROUND
START **Blue Sky** END **Blue Sky**

BACKGROUND COLOR SKY CONDITIONS
START **Blue Sky** END **Blue Sky** START **Blue Sky** END **Blue Sky**

WIND SPEED WIND DIRECTION
START **15 mph** END **15 mph** START **S** END **S**

AMBIENT TEMP MET BULB TEMP RH percent
START **66°** END **66°**



ADDITIONAL INFORMATION

OBSERVATION DATE		START TIME		END TIME	COMMENTS
SEC	MIN	0	15	30	
1					
2					
3	30				11:28 next
4					to no room
5					load out shed
6					sun directly
7					behind
8					on road way
9	10	0	5	0	at barge 11:33
10	15	0	30	5	sun directly
11	40	0	30	0	behind
12	40	0	85	0	
13	0	0	5	0	
14	50	0	0	0	
15	65	10	0	35	
16	0	0	5	0	
17	15	0	10	0	
18	0	0	30	0	
19	0	0	0	0	
20	10	5	0	0	
21	0	0	60	0	
22	80	0	0	0	
23	5	0	0	5	man came out
24	0	0	0	15	of shovel
25	0	0	0	0	
26	0	55	0	40	
27	0	0	0	0	
28	0	0	0	0	
29	0	0	5	0	
30	15	0	0	0	end 11:55am

OBSERVER'S NAME (PRINT)
Katharina Bellairs




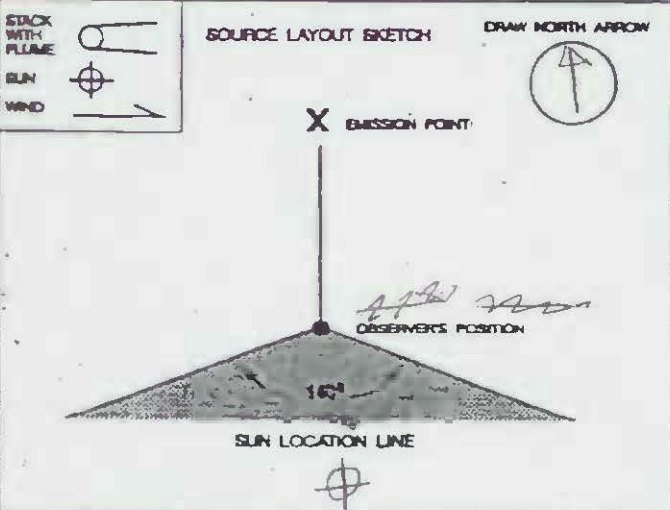
OBSERVER'S SIGNATURE
Katharina Bellairs DATE
5/19/14

ORGANIZATION
US EPA

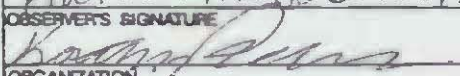
CERTIFIED BY
IEPIA DATE
4/15/14

CONTINUED ON VED FORM NUMBER

VISIBLE EMISSION OBSERVATION FORM

COMPANY NAME SH Bell		
LOCATION 10217 South Ave 0		
CITY STATE ZIP Chicago IL 60617		
PROCESS EQUIPMENT Barge	OPERATING MODE operating	
CONTROL EQUIPMENT none	OPERATING MODE	
DESCRIBE EMISSION POINT Barge & Barge Pile Loading		
HEIGHT ABOVE GROUND LEVEL 15 1/2	HEIGHT RELATIVE TO OBSERVER START 10' END 10'	
DISTANCE FROM OBSERVER START 25' END 25'	DIRECTION FROM OBSERVER START N END N	
VERTICAL ANGLE TO PLUME 35°	HORIZONTAL ANGLE TO PLUME 10°	
DESCRIBE EMISSIONS		
START Black Dust END Black Dust		
EMISSION COLOR Black IF WATER DROPLET PLUME <input type="checkbox"/>		
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START middle END middle		
DESCRIBE PLUME BACKGROUND		
START Blue Sky END Blue Sky		
BACKGROUND COLOR Black SKY CONDITIONS Blue Sky		
WIND SPEED START 15 mph END 15 mph WIND DIRECTION START S END S		
AMBIENT TEMP START 66° END 66° WET BULB TEMP RH percent		
STACK WITH PLUME  SUN  WIND 	SOURCE LAYOUT SKETCH 	
ADDITIONAL INFORMATION		

OBSERVATION DATE		START TIME		END TIME	COMMENTS
SEC	MIN	0	15	30	
1	0	0	0	0	11:56 am start
2	0	15	0	0	
3	0	10	0	0	
4	15	15	0	0	
5	0	0	0	0	
6	20	0	45	0	
7	15	0	0	0	
8	0	0	0	25	
9	10	15	0	25	
10	0	0	0	0	
11	0	0	0	10	end 12:07 pm end
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

OBSERVER'S NAME (PRINT) Katharina Bellairs	
OBSERVER'S SIGNATURE 	DATE 5/19/14
ORGANIZATION US EPA	
CERTIFIED BY IEPA	DATE 4/15/14

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