EDW. C. LEVY CO. 8800 Dix Avenue, Detroit, Michigan 48209, (313) 843-7200

January 3, 2014

Ms. Katherine Koster
MDEQ Detroit, AQD
Detroit Field Office, Cadillac Place
3058 W. Grand Blvd., Suite 2-300
Detroit, MI 48202-6058

Subject: **December 13, 2013 Second Violation Notice**
Edw. C. Levy Co., Plant 6
SRN: B4243, Wayne County

Dear Ms. Koster:

The Edw. C. Levy Co. (Levy) is in receipt of your Second Violation Notice (VN) dated December 13, 2013. This VN alleges that Levy failed to adequately address, in its response letter of December 2, 2013, the steps being taken to prevent a reoccurrence of the explosion that occurred at the BOF skull knock station on August 31, 2013, and thus requested additional information.

The information requested in the VN is provided below.

"Please provide information about actions that have been and will be taken to prevent another explosion at the BOF skull knocking station, including, but not limited to, modifications to operating procedures, changes or upgrades to the drainage system, inspections and re-grading of the site, etc."

The two primary root causes for the explosion on August 31, 2013 at the BOF knock station were lack of communication between the Severstal BOF Melt Shop and Levy, and operator error.

As we have previously discussed, the explosion occurred during a severe storm event that produced winds in excess of 30 mph and rainfall of approximately 4 inches in the hour preceding the explosion. This storm by itself was not sufficient to create an explosive condition.

Simultaneously, the BOF Melt Shop discharged an abnormal amount of molten steel into a BOF slag pot. This fact was not communicated to the Levy pot carrier operator. This was the breakdown in communication.

The pot carrier operator transported the BOF slag pot, which contained an greatly percentage of molten steel, to the BOF slag pits. The operator chose to dump the pot within the knock station enclosure, versus the open BOF pits, based upon the assumption that they would be dry. The operator did not verify that the pits were dry prior to dumping the pot. This was the operator error.

The BOF skull knock station enclosure pits were not dry. As a result, the pot was dumped into a small pool of storm water, resulting in the explosion. If the pot had

contained a normal amount of molten steel, the explosion would not have occurred. Similarly, if the operator had inspected the pit and determined that there was water present, he could have used hot slag to dry the pit prior to dumping the pot, and an explosion would not have occurred.

To address the communication issue between Severstal and Levy, a Levy operations manager now attends a daily safety & production meeting that is conducted by Severstal's BOF melt shop management. In addition, Levy's division manager now attends weekly safety meetings with Severstal's senior operations managers. Both of these meetings were established jointly by Severstal and Levy management as a direct result of the August 31, 2013 explosion.

In addition, Severstal conducted a safety meeting with all BOF pulpit operators to ensure that the melt shop operators inform Levy pot carrier operators whenever there is an abnormal amount of molten steel placed into a BOF slag pot.

To address operator error, the pot carrier operator procedure was modified to clarify what an operator is to look for during an inspection prior to dumping a pot, and to clearly state that an operator is never authorized to pour hot slag into a wet pit. All employees were re-trained on the modified procedure.

The following physical modifications were also made to the BOF slag pit area to reduce the potential for storm water accumulation in the slag pits. An additional French drain was installed near the liquid pits to facilitate removal of water from the pit area. The property was also graded to force storm water to flow away from the pits, on both the upper and lower levels.

"Also, your letter indicated that three months have elapsed since the explosion and provided a target date of December 6, 2013, for repair of the knock station enclosure. In your response, please confirm the completion date and include an explanation of why three months were needed to complete the repair."

The knock station enclosure was severely damaged by the explosion on August 31, 2013, Labor Day weekend. The enclosure required complete replacement of the sheet metal walls and roof, and repair of structural supports.

The approximate timeline for repairs was as follows:

September 1st	- Demolition of damaged enclosure commenced.
September 3rd	- Search for a qualified contractor to repair enclosure began.
September 10th	- Demolition completed
September 12th	- First qualified contractor inspects remaining enclosure for integrity and to develop a list of required materials
September 26th	- Purchase order issued to Alcon Building Group for repairs. (material delivery time estimated at 3 weeks, actual delivery time 5 weeks)
November 4th	- New construction began (construction time estimated at 16 days, actual construction time 4 weeks) (Construction delays were partially due to inclement weather, high winds and rain)
November 30th	- Construction completed

"Furthermore, based on discussions with Edw. C. Levy, it is AQD's understanding that a review of other potential fugitive emission sources, including material handling and watering of the skulled material, was conducted and procedures were modified. Your response should include this information and any other areas of the process that were evaluated and any actions taken to minimize the potential for fallout."

As we have previously discussed, Levy personnel have spent extensive time evaluating all operations for opportunities to minimize our impact on the environment. Continuous improvement of our manufacturing operations is one of our core values.

With regards to handling skulled material, in late 2013, we discovered that during our second shift operations, water sprays at the quench station were being used to suppress dust during the transfer of hot slag from the skull knock station. It was determined that these water sprays created excessive steam, which had the potential to entrain particulate matter, and actually had the potential to create more emissions. As a result, this process has been modified to keep the water sprays turned off until all material is transferred from the skull knock station to the quenching station. Water misting systems are used at both the skull knock station and quenching station to suppress potential particulate emissions caused by material handling. Once all of the slag is removed from the slag knock station, the water sprays are activated at the quench station to cool and saturate the slag.

Other process improvement efforts underway at this facility include the installation of a desulf slag pot watering station, which has the potential to significantly reduce particulate emissions from desulf slag management. Construction of this new operation is anticipated to be completed in April 2014.

Please let me know if you have any questions or need additional information.

Sincerely,

Thomas E. Green
Director, Environmental Services
Edw. C. Levy Co.
tgreen@edwclevy.net
(313) 690-0139

cc: Bob Michalik, Operations Manager, Levy
Thomas Smith, General Operations Manager, Levy
Brian Lasley, Vice President, Levy
Jim Earl, Severstal Dearborn, LLC