April 16, 2015

ATTACHMENT A PROJECT UPDATE

The following is an update on the most recently completed emission reduction project listed on Attachment A to the ESCO Good Neighbor Agreement (GNA).

PROJECT #14: Modify operations at the AOD to improve capture.

Actions and Status: The AOD capture hood, which directs process emissions into the dust collector for removing particulate matter and metals, is very effective at capturing emissions during normal processing and when the AOD vessel is directly under the hood. The vessel is under the hood approximately 90% of the process time (which typically lasts 30-60 minutes). The ERM and Karas reports identified the need to investigate improvements to emissions capture when the vessel is not directly under the hood.

ESCO Plant Engineering re-designed the capture hood to improve capture during portions of the process when the AOD vessel is not directly under the hood, such as charging, tapping and alloy additions. The hood opening on the front was extended upward to allow for better capture of emissions that are typically pushed up and around the hood by a thermal draft.

The ERM Report also recommended that operational procedures be modified to ensure the hood is moved into place as soon as possible to help maximize the level of capture. ESCO Main Plant personnel reviewed the AOD operations and determined there was no established standard for operating the capture hood to minimize emissions during the various AOD processes. The operations team created a visual work instruction, which establishes a standard for training, coaching and auditing. This instruction discusses the various AOD processes, important factors to consider such as safety and physical limitations, and the methods for capturing the maximum amount of emissions while safely operating the equipment.

Results: Before and after videos of the various AOD operations were analyzed to estimate the impact of the hood re-design. Based on this analysis, we estimate a 27% reduction in the quantity of fugitive emissions released from the AOD operations. The pre-project emission factor assumes 3% of releases from the AOD process were fugitive emissions, with the remainder sent to the dust collector. Our post-project estimate is that only 2.2% of process emissions are released as fugitive emissions. Annually, based on 2014 production levels, this equates to an emissions reduction of 773 pounds of Particulate Matter and 20 pounds of Metallic HAPs, primarily Manganese.

Method of Confirmation: Neighbor Groups may inspect operations to confirm that revised operating procedures are being followed. We will schedule an opportunity to observe the AOD process and to review the procedures with those who are interested.

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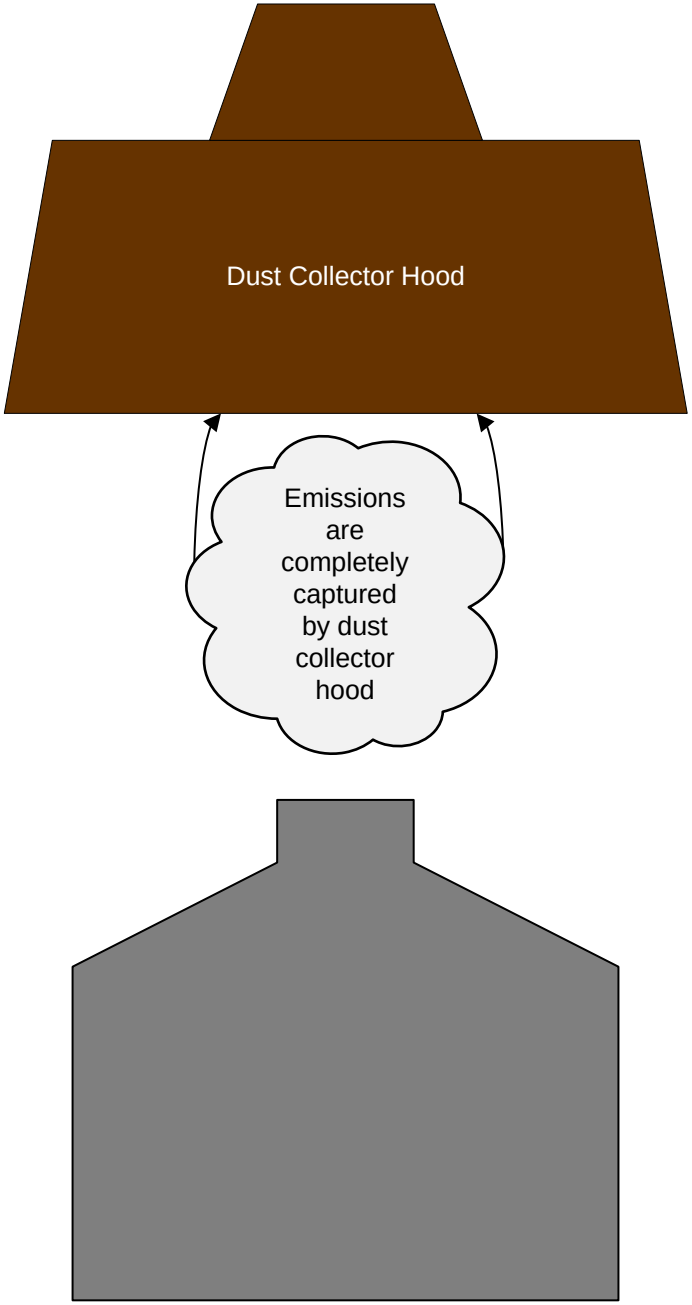
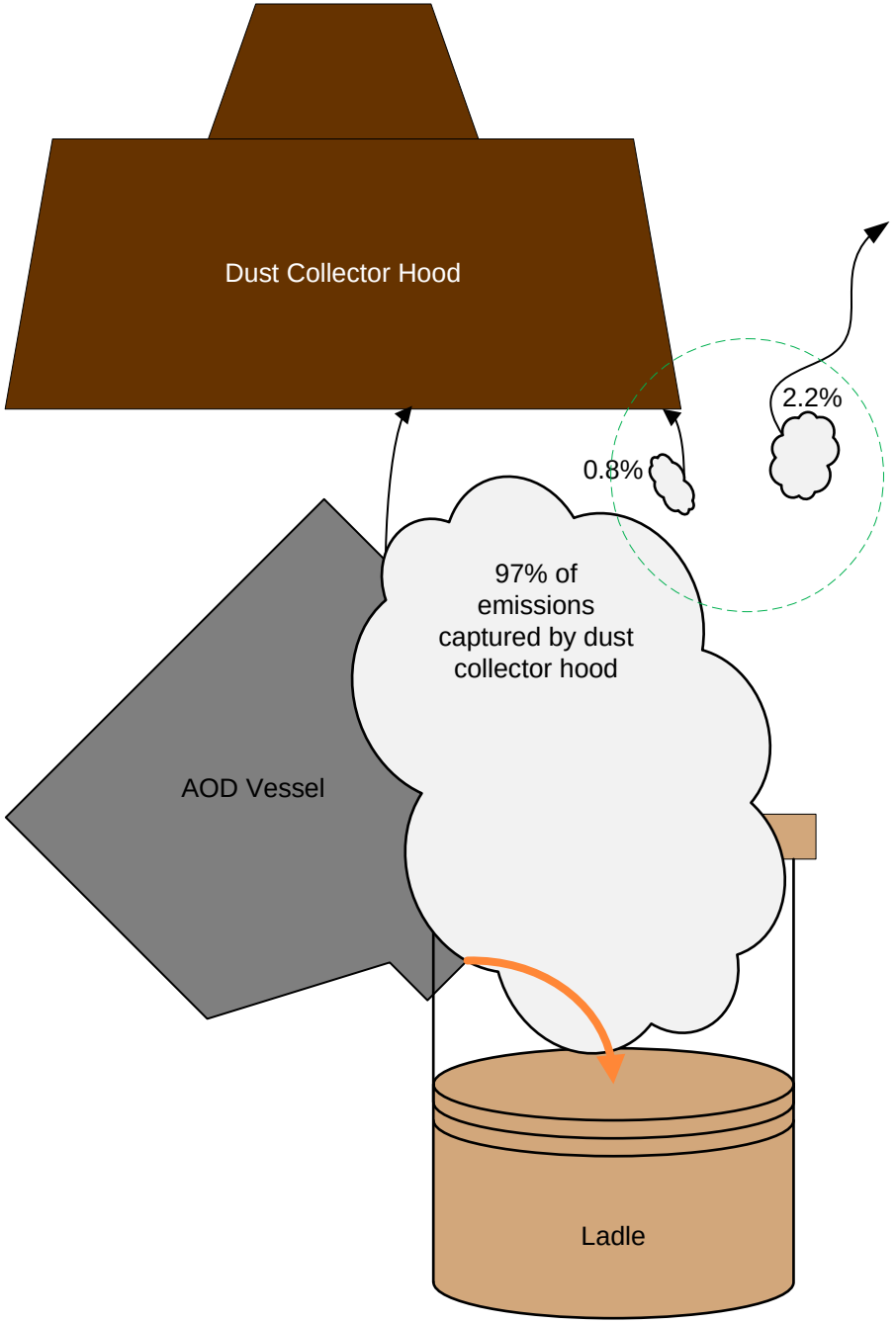
AOD Vessel Upright During Processing



AOD Vessel Rotated During Charging and Tapping



Before changes, 3% of emissions were emitted as fugitives.

After changes, 2.2% of emissions are emitted as fugitives and an additional 0.8% is collected by the baghouse.