From: Cathers, Jonathan
To: Galinsky, Virginia
Cc: Letuchy, Alexandra; Loukeris, Constantinos
Subject: BP-Husky CD update
Date: Monday, June 28, 2021 12:57:55 PM

Hi, Virginia.
I wanted to circle back with you on some of the questions your team posed during our 5/13 virtual meeting addressing BPH's progress implementing the Consent Decree.

- Question: Was the CEM diaphragm that failed (contributing to the >5% downtime) included in the spare parts inventory?
    - Yes. The part was replaced with a new part that was in the Refinery's inventory on site.
- Question: Can BPH commit to reporting the type of LDAR components (e.g., valves, pumps, etc.) in reports?
    - Yes. We will begin reporting this way moving forward.
- Question: Can you describe the type/level of Method 21 training that gets completed on site?
    - Our Method 21 training regimen—both the LDAR contractor and bp's effort—will be discussed in the LDAR Corrective Action Plan that we are submitting in July. Please let me know if you have additional questions after reading what is included in the report.
- Question: Can you provide an update on the effort to remove any non-Low-E valves from the refinery?
    - The process to remove all non-Low-E valves from the site is ongoing. The effort is being undertaken by multiple groups throughout the refinery and will include checking stockpiles in the control rooms, process units, maintenance shops, and warehouses.
- Question: Can you reconcile the reporting of 89 versus 27 untagged/unmonitored valves?
    - Unmonitored components reported in Annual LDAR and Semi-annual Reports for 2020 totaled 84. The 89 referenced on the call included 5 additional valves in the Iso2 unit that were in the LDAR database with no missed monitoring events but were missing tags in the field. We believe the misalignment on the numbers may be the result of a quick review missing the 57 (55 valves and 2 pumps) that were found at the East Flare on 12/7, as 27+57 = 84; please let us know if we are mistaken. The dates, units, and type of components are as follows:
        - 6/17/2020: 8 valves in Crude/Vac 2
        - 6/29/2020: 1 valve in Alky 2
        - 8/20/2020: 1 valve in Iso2
        - 10/14/2020: 17 valves in FCCU
        - 12/7/2020: 57 total components in East Flare (55 valves and 2 pumps)
    - As noted above, moving forward, we will detail the type of component in both the LDAR and Semi-annual CD reports. Additionally, as we described on our call, we are currently in the process of undergoing a 100% review of the refinery and P&IDs to verify all applicable components are in the LDAR program.

Additionally, I have noted the following as outstanding questions for your team:

- Virginia to send any EPA guidance on calculating CEMs downtime on a line not in service 100% of the time (e.g., CEM on a bypass stack) while the affected facility is operating.
- Kosta to provide proposed LDAR summary table to be included in CD Semi-Annual report.

We are still working on your request for the costs of any NSPS Subpart QQQ corrective actions. Let

me know if you or your team has any questions about any of the above.

Thanks,

Jonathan

Jonathan Cathers

Environmental, Social & Carbon Superintendent | **BP-Husky Toledo Refinery**

4001 Cedar Point Rd | Oregon, OH 43616 | 📱: Cell (419) 902-4595 | ✉: jonathan.cathers@bp.com