DRBA submittal for Docket #2024-P-A-005 - Croda Flare System Permit

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To:HearingComments, DNREC (MailBox Resources) <DNRECHearingComments@delaware.gov>

1 attachments (24 KB)

Croda Flare Tower - DRBA Public Comment.docx;

Good afternoon,

The DRBA submitted comment earlier today but we realized that the title of our letter had the word proposed. Please see the attached letter that is corrected.

We apologize for the inconvenience.

Thank you,
Silvana

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DRBA DELAWARE RIVER & BAY AUTHORITY

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DRBA Public Comment to Public Hearing: Croda Flare System Permit

The Delaware River and Bay Authority (the "DRBA") submits this comment in response to the Public Hearing on the Croda Flare System Permit application in connection with the proposed flare tower to be erected in close proximity to the Delaware Memorial Bridge (the "Bridge").

The DRBA, which maintains its administrative offices at 2162 New Castle Ave, New Castle, DE 19720, at the base of the Bridge, is responsible for the operation, maintenance and safety of the Bridge and is concerned that the flare tower may adversely affect the safety of its employees, local community residents and the over 18,000,0000 vehicles that cross the Bridge annually.

Croda does not appear to have provided information regarding the exact location of the flare tower in its Public Hearing materials; however, plans on record with New Castle County show that the proposed location of the flare tower will be near the Croda property line closest to the Delaware Memorial Bridge. This location is of significant concern to the DRBA for a variety of reasons.

Of particular concern is the presence of ethylene oxide at Croda's facilities. Ethylene oxide is recognized to be an extremely flammable chemical that can cause immense harm. During Croda's ethylene oxide release on November 25, 2018, a full shutdown of the Bridge was required during an extremely busy Thanksgiving travel weekend. According to Holloway Terrace Fire Company Public Information Officer George Greenley, "if that flume would have had an ignition source it could have been catastrophic with the bridge traffic." While in theory, a flare tower would help prevent ignition of ethylene oxide, a gasket failure, burst pipe or other malfunction of piping transmitting ethylene oxide to the flare tower at a point prior to entering the tower, could release extremely toxic and flammable chemicals near an ignition source (*i.e.*, the flare tower), close to critical Bridge infrastructure. Given the presence of ethylene oxide and the history of releases, the erection of an ignition source such as a flare tower so close to the Bridge is not prudent or reasonable. Undertaking all efforts to prevent catastrophic damage to critical infrastructure in the State, such as the Bridge, is paramount, and the DRBA is not confident that should there be a leak in the facility, the contingency plans in place would be sufficient to avoid an explosion or other potentially catastrophic event caused by the flare tower.

The DRBA is equally as concerned about the risk to the health of its employees, surrounding community residents and Bridge users that the flare tower poses. Page 12 of Exhibit 3 of the Public Hearing materials indicates that under malfunction conditions, the maximum downwind concentration of pollutants is 174 meters. Given the location of the flare tower, it is doubtful that the DRBA's property and Bridge, or the communities around the Croda property are outside the range of any potential release or toxic plume. Croda intends to burn toxic chemical pollutants in the flare tower and DNREC should confirm that the maximum plume cannot impact local residents, DRBA employees or Bridge users, even during a process upset or flare malfunction.

The DRBA also harbors safety related concerns regarding Bridge traffic, including the potential for black smoke from the flare tower as well as a constant open exposed flame around the height of the Bridge deck. These concerns are real and legitimate. Currently, during some steam releases by Croda, steam pools at the base of the Bridge, and often requires drivers to drive through it. If black smoke were emitted from the flare, it could impede drivers' vision, significantly increasing

the risk of serious and potentially fatal traffic accidents on the Bridge. Second, an open flame visible from the road could cause distraction and/or panic to drivers who are not aware that it is a controlled flame coming from a flare tower.

Further, the purpose of installing the flare tower so close to the Bridge is unclear to the DRBA. The description of the flare tower versus the proposed usage do not align. Specifically, the public has been advised that the flare tower is meant to reduce emissions. However, we understand that flare towers are generally used for emergency purposes. Croda requested that the flare tower be authorized to burn for 876 hours per year, or 10% of the total hours in a year. Croda's permit application raises serious questions concerning why the flare tower is needed and why it needs to burn for up to 10% of each year. These numbers seem excessive for emergency use. Croda has been operating without a flare tower for many years, so it is not clear what prompted Croda to pursue this flare tower now, why it must be in this specific location, and why it must have such a significant run time.

The DRBA also understands that less than 5 types of VOC emissions are to be controlled by the flare tower. This raises further questions regarding why such a large expenditure for a small number of VOCs is necessary. Without clarification from Croda, many unknowns remain regarding the purpose of the flare tower and how the flare will impact the safety of the Bridge and surrounding communities. The need for the tower, its location, and the amount of time the flare tower is authorized to operate should be further studied by DNREC.

Finally, the DRBA spends a tremendous amount of time, money and effort on the aesthetic appearance of the Bridge and its property to create a welcoming experience for travelers coming into Delaware. Crossing the Bridge is the first impression drivers see entering Delaware from I-295. With the addition of the flare tower, drivers would now be welcomed by an open flame on the left followed by the "Welcome to Delaware" sign on the other side of I-295. If DNREC elects to proceed and authorize the flare tower, one solution could be to require the installation of an enclosed flare tower to eliminate the exposed flare. Not only would this help alleviate traffic safety concerns the exposed flame will create but it would help maintain the aesthetic appearance of the entrance to Delaware crossing the Bridge.

Based on the concerns raised above, if Croda cannot continue safely operating as it has been operating and an emergency flare is required, the DRBA respectfully requests (i) that DNREC undertake a study regarding the location and height of the flare tower to ensure the safety to the surrounding residents, workers and Bridge travelers from the maximum plume, including during emergencies and periods of upset or malfunction; (ii) that DNREC confirm the flare tower cannot be an ignition source in the event of a release of ethylene oxide or other dangerous chemicals, and that there are no other risks to the traveling public from the flare; (iii) that DNREC confirm that the requested 876 hours of burn time per year for this flare tower is appropriate, reasonable and not a cause for concern regarding emergency operations at Croda's facilities; and (iv) that DNREC evaluate whether an enclosed flare tower would be a more appropriate solution in this instance.

We appreciate the public hearing and having an opportunity for our concerns to be heard.