

**SECRETARY'S ENVIRONMENTAL ASSESSMENT REPORT  
FOR A COASTAL ZONE ACT PERMIT APPLICATION**

**Re: Croda, Inc.**

**February 2014**

**Introduction**

As required by the "Regulations Governing Delaware's Coastal Zone" (Section 8.3.4) dated May 11, 1999, and amended October 1, 2001, the Secretary is required to make an environmental assessment of the impact(s) of the project on the Coastal Zone of Delaware. This is done by evaluating the project's likely impact on the statutory and regulatory criteria and making a preliminary determination of the sufficiency of the Offset Proposal. The following is such an environmental assessment of the proposed project described in an application for a Coastal Zone Act (CZA) Permit, received from Croda, Inc. ("Croda").

The fact that DNREC considers an application to be preliminarily, administratively complete does not constitute the Department's position as to whether the application should be approved or denied. That decision will not be made until after the public hearing. The purpose of the Secretary's written assessment is to assist the applicant and the public to focus on issues presented in the application. It constitutes an administrative determination that the application is sufficient to proceed to a public hearing. In addition, should the Department eventually issue the CZA Permit, it does not automatically guarantee the applicant will receive other required permits.

**The Proposed Project**

Croda is seeking a permit to install and operate a high viscosity alkoxylation reactor system, designated as 6 Autoclave, which is composed of a 5,000 gallon load tank, 6,500 gallon alkoxylation reactor, and the necessary supporting utility equipment. The project involves a small area on an existing concrete pad next to an existing building within the footprint of the existing industrial site. Environmental impacts to air quality are anticipated; a scrubber will be utilized in conjunction with 6 Autoclave for the environmental offset.

**Sufficiency Statement**

This application for a CZA Permit, including supplemental information, has been reviewed by the Department to determine its completeness. After a thorough review of the company's application and file, the Department considers this application to be administratively complete and sufficient for proceeding to public hearing.

## Environmental Assessment

The net increase in air emissions from the new 6 Autoclave process for total HAPs is estimated to be no greater than 0.57 tons/yr. which may consist of one or more of a combination of all three HAPs. Neither the total new HAP emissions nor any individual HAP is expected to exceed 0.57 tons/yr.

Pollutant	Existing Emissions		Net Increase/Decrease		New Total Emissions		Percent Change (compare tons/year)
	Lbs/day	Tons/year	Lbs/day	Tons/year	Lbs/day	Tons/year	
Ethylene Oxide	*	1.09	*	<0.57**	*	**	**
Propylene Oxide	*	.31	*	<0.57**	*	**	**
Dioxane	*	1.92	*	<0.57**	*	**	**
VOC (including HAPs listed above)	*	8.258	*	Negligible***	*	***	***
Total HAPs from EO/PO/Dioxane		3.32		0.57		3.89 w/o offset 3.15 w/offset ****	-19% ****

**\*Lbs/day is not a method of recording per the State, as this is a batch operation**

**\*\*Total HAP emissions are estimated to not exceed 0.57 tons/yr. of one or a combination of the three HAP constituents. The facility commits to batch emissions not exceeding the State requirement for Screen3 modeling.**

**\*\*\*The VOC emissions for this operation will not drastically change the site-wide emissions; consequently, "Negligible" was used to indicate the net Increase due to the 6 Autoclave**

**\*\*\*\*As amended by a letter from Croda, dated February 18, 2014**

Thus, the total HAP emissions from all autoclave processes after installation of the new 6 Autoclave and the new scrubber is estimated to be 3.15 tons/yr.  $[3.89 - (1.30 \times 0.57)]$  or an 19% decrease from the projected total HAP emissions including the new process (3.89 tons/yr.).

There will be no new water discharges and no changes to current discharge levels. There will be no change in sanitary wastewater, which is discharged to the New Castle County sewer system. No increase in stormwater discharge is anticipated. There will be no new or increased solid and/or hazardous wastes. There will be no new impacts to wildlife habitat. No other noticeable environmental impacts are expected.

**Offset Proposal**

Croda is installing a scrubber to be utilized with the new 6 Autoclave and the three existing autoclaves (3A, 4, and 5 Autoclaves) on a batch-selected basis. The facility proposes to offset the total HAP emissions from 6 Autoclave by running batches from the existing autoclaves to the scrubber in an amount to offset 130% of the total annual HAP emissions from 6 Autoclave.

**Conclusion**

The company's application is preliminarily administratively complete.

**Approved:**

  
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Collin P. O'Mara  
Secretary

**Date:**

  
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