

**ADDENDUM**

**ATTACHMENT C**

Revised Table 5.3

Table 5.3 Proposed Project Future Air Emissions Compared to CZA Original Project Permit Air Quality Impacts

Pollutant	CZA Permit Section 5.1 Daily Emissions for Veolia Plant  lb/day	2003 CZA Permit Project Emissions (Annualized for 365 days from Section 5.1 lb/day)  (T/yr)	Actuals based on 2017 reported Emissions  (T/yr)	Forecast Future Actual Emissions with Revised CZA Permit at 750 TPD  (T/yr)	Do the Proposed CZA Permit Forecast Actuals Emission Exceed the 2003 CZA Application Annualized Emissions?	Title V Permit Limits  (T/yr)	Project Impact Increased Future Actual to 2017 Past Actual  (T/yr)	PTE (Permit Limit) Minus Future Actual (Remaining Permit Limit)  (T/yr)
SO2	500	91.3	55.9	81.74	No	95.55	25.8	13.8
H2SO4 mist	60	11.0	5.02	7.2	No	10	2.1	2.8
NOx	68	12.4	18.91	22.0	Yes; see Note 1.	22	3.1	0.0
CO	145	26.5	0.62	0.89	No	12	0.28	11.1
PM10	N/A	None	0.043	0.067	N/A	4.3	0.023	4.2
PM2.5	N/A	None	0.036	0.055	N/A	N/A	0.019	N/A
VOC	N/A	None	0.73	1.07	N/A	2	0.34	0.93

Notes:

1. The increase in NOx emissions from 12.4 to the 22 TPY limit in the DNREC Air permit has been offset. By letter dated November 20, 2007, the CZA Program, in responding to a letter dated October 24, 2007, concluded that the circumstances which necessitated an amendment to the Air Emissions Permit, did not require a new or amended CZA Permit. (10/24/07 and 11/20/07 Letters attached as Attachment I)

**ATTACHMENT I**



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**DuPont Red Lion Plant  
766 Governor Lea Road  
Delaware City, DE 19706**

October 24, 2007

Mr. Philip Cherry  
Office of the Secretary  
Delaware Department of Natural Resources  
and Environmental Control  
89 Kings Highway  
Dover, DE 19901

**RE: DuPont Red Lion CZA Permit No. 406  
Air Emissions Permit APC-2003/0739 - Operation**

Dear Mr. Cherry:

This letter provides information related to the above permits and explains that, although DuPont is seeking an amendment to its air emissions permit for the Red Lion facility, there is no reason to amend the CZA permit.

By way of background, you probably recall that DNREC issued DuPont a CZA permit to allow for construction of a sulfuric acid regeneration (SAR) plant at the Delaware City refinery, then owned by Motiva. The main rationale for the permit was DuPont's new plant would be a state-of-the-art replacement for an old Motiva facility which posed significantly greater environmental impacts. Among other things, it was contemplated the DuPont plant would eliminate 2700 tons/year of scrubber wastes in the Motiva facility water discharge. As for air emissions, the most important parameter was sulfur dioxide (SO<sub>2</sub>). The Motiva facility was permitted to emit 219 tons of SO<sub>2</sub> per year; the maximum allowed under DuPont's air emissions permit is 92.25 tons/year. To ensure the DuPont SAR plant would only replace the Motiva plant, the CZA permit included conditions which required Motiva to relinquish its permit for its SAR plant, and prohibited operation of the DuPont plant in the event the refinery goes out of business.

The Hearing Officer's Report included a detailed comparison of the projected reductions in air emissions, noting however there could be some increases of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) emissions: "Mr. Brown's Response Document concludes that NO<sub>x</sub> and CO may increase by 8 and 17 tons per year respectively over Motiva's estimated emissions. In any case, the 'clearly and demonstrably more beneficial' standard would appear to be easily met, despite some variations in final numbers at this early stage." (page 24; I have added the underlining to the quotation). Thus, DNREC recognized the DuPont plant would be implementing new technology and the actual emissions would be unknown until the plant was

operated. Incidentally, the technology is now considered by the EPA to constitute the best available control technology (BACT).

The above reference to the “clearly and demonstrably more beneficial” standard is to Sec. I.1.a) of the CZA regulations. It provides:

“Any application for a Coastal Zone permit for an activity or facility that will result in any negative environmental impact shall contain an offset proposal. Offset proposals must more than offset the negative environmental impacts associated with the proposed project or activity requiring a permit. It is the responsibility of the applicant to choose an offset project that is clearly and demonstrably more beneficial to the environment in the Coastal Zone than the harm done by the negative environmental impacts associated with the permitting activities themselves.”

DNREC’s CZA permit decision contemplated there could be some negative environmental impacts so long as they were more than offset by the positive impacts.

As it has turned out, DuPont’s SAR plant has performed as well or better than predicted, except with respect to NO<sub>x</sub> emissions. The sulfur dioxide emissions, as expected, have dropped dramatically compared to Motiva’s permitted emissions and have met the air permit limitations. Accordingly, the most important reduction for purposes of the CZA permit rationale has been realized. In addition, the CO emissions have not increased 17 tons over Motiva’s estimated emissions, as projected in the DNREC Response Document. As a result, we anticipate an amendment to the air permit will reduce the annual permitted CO emissions from 26.4 tons/year to 12 tons/year.

As for the NO<sub>x</sub> emissions, the new technology has not performed quite as well as expected. DuPont is in the process of obtaining an amendment to its air emissions permit which will conform the NO<sub>x</sub> limit to what the plant can realistically achieve. That amendment would allow up to 22 tons/year as opposed to 12.2 tons/year in the current permit. We are working on the air permit with Paul Foster, Ravi Rangan and Bruce Steltzer in DNREC’s Division of Air and Waste Management. We expect, as part of that endeavor, to fund an environmental improvement project (EIP) which will reduce significantly certain vehicular precursor pollutant emissions, including NO<sub>x</sub>. In addition we plan to retire 12 tons of NO<sub>x</sub> credits from another facility. The net result is that the NO<sub>x</sub> emissions will be less than estimated when the CZA permit was issued, albeit as a result of the combination of the above actions.

Although the air emissions permit needs to be amended because it contains a NO<sub>x</sub> limitation that cannot be met, the CZA permit contains no such limitation. As many permits do, the CZA permit requires the permittee to comply “with all other applicable permit requirements, regulations and laws of the State of Delaware.” That provision recognizes that other programs address specific environmental concerns, whereas the CZA addresses broader land use considerations. As stated above, the air emission issues are being addressed by DNREC’s Division of Air and Waste Management. Fortunately, the performance of the plant has vindicated DNREC’s decision to grant the CZA permit. The “clearly and demonstrably more beneficial” standard has been “easily met” because overall the emissions reductions (especially the 100 plus ton reduction in SO<sub>2</sub>) represent a very significant improvement. The relatively

small increase in the NO<sub>x</sub> emissions over what was anticipated doesn't alter the conclusion - - the overall emissions reductions easily satisfy the CZA standard.

The Division of Air and Waste Management is interested in making sure it has addressed all the pertinent regulatory requirements and suggested that we confirm our understanding that there are no CZA permit issues involved. Accordingly we would ask that you acknowledge that there is no need to amend the CZA permit. Thank you for your consideration.

Sincerely,

John M. Jeffries  
Plant Manager

cc: David Small  
Paul Foster  
Ravi Rangan  
Bruce Steltzer



STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL

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89 KINGS HIGHWAY  
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November 20, 2007

Mr. John M. Jeffries  
Plant Manager  
DuPont Red Lion Plant  
766 Governor Lea Road  
Delaware City, Delaware 19706

*Rec'd  
11/29/07*

**Re: Coastal Zone Act (CZA) Permit 406**

Dear Mr. Jeffries:

This letter is in response to your letter dated October 24, 2007 regarding your question as to whether or not you had to amend your CZA Permit to address the issues which necessitated an amendment of your Air Emissions Permit.

As per CZA Permit 406, you are required to notify the Department of any significant deviations from the plan and operations approved by the Secretary. If the Secretary then deems this variation to substantially change the nature or scale of the project and to be of actual or probable harm to the purposes of the Coastal Zone Act, a permit may be need to be amended or a new permit application would be required.

After reviewing your letter and the original CZA Permit 406, it has been determined that under the circumstances a new or amended CZA Permit will not be required. The use of NOx credits and the environmental improvement project to offset the excess NOx emissions will not significantly change the nature or scale of the original project.

If you have any questions, or if situations rise in the future, please give Elena Tkacz of my staff a call at (302) 739-9909 or e-mail her at [Elena.Tkacz@state.de.us](mailto:Elena.Tkacz@state.de.us).

Sincerely,

Philip J. Cherry  
Director of Policy and Planning

Cc: David Small  
Paul Foster  
Ravi Rangan  
Bruce Steltzer  
Elena Tkacz

*Delaware's Good Nature depends on you!*