

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

OHIO E.P.A.

MAR 13 2007

ENTERED DIRECTOR'S JOURNAL



In the Matter of:

Lanxess Corporation
356 Three Rivers Parkway
Addyston, Ohio 45001

Respondent.

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Director's Final Findings
and Orders

PREAMBLE

The Director and Respondent agree as follows:

I. JURISDICTION

These Director's Final Findings and Orders ("Orders") are issued to Lanxess Corporation ("Respondent") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") § 3704.03.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of the Respondent or of the facility (as hereinafter defined) shall in any way alter Respondent's obligations under these Orders.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3704 and the rules promulgated thereunder.

IV. FINDINGS

The Director of Ohio EPA has determined the following findings:

1. Respondent owns and operates a thermoplastics manufacturing plant ("the facility") which is located at 356 Three Rivers Parkway in Addyston, Ohio, and is identified by Ohio EPA facility identification number 1431010054. Respondent is a "person" as defined by ORC § 3704.01(O) and Ohio Administrative Code ("OAC") Rule 3745-15-01(U).

2. At the facility, Respondent operates numerous pieces of equipment for the production of acrylonitrile butadiene styrene ("ABS") (predominant product), styrene acrylonitrile ("SAN"), and acrylonitrile styrene acrylate ("ASA") plastics. Among the equipment are various emissions units that emit acrylonitrile and 1,3-butadiene. These emissions units are each an "air contaminant source" as defined in OAC Rule 3745-15-01(C) and (W), and emit organic compounds as defined in OAC Rule 3745-21-01(B)(4), including acrylonitrile and 1,3-butadiene, which are "hazardous air pollutants" as defined in OAC Rule 3745-77-01(V).

3. Under R.C. 3704.03(l) the Director may: "[r]equire the owner or operator of an air contaminant source to install, employ, maintain, and operate such emissions, ambient air quality, meteorological, or other monitoring devices or methods as the director shall prescribe; to sample those emissions at such locations, at such intervals, and in such manner as the director prescribes; to maintain records and file periodic reports with the director containing information as to location, size, and height of emission outlets, rate, duration, and composition of emissions, and any other pertinent information the director prescribes."

4. The Director finds that additional monitoring, study and modeling of the acrylonitrile and 1,3-butadiene emissions for Respondent's facility is necessary.

5. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their benefits to the people of the State to be derived from such compliance. The Director has allowed reasonable time for compliance.

V. ORDERS

The Director hereby issues the following Orders:

1. The Director's November 7, 2006 Findings and Orders regarding the Lanxess Facility are hereby revoked.

2. To identify control measures to reduce the emissions of acrylonitrile and 1,3-butadiene, Respondent shall comply with the requirements of Orders 3 and 4 as expeditiously as practicable, but not later than the deadlines specified therein.

3. Respondent shall submit to the Hamilton County Department of Environmental Services and Ohio EPA, as expeditiously as practicable, but not later than February 28, 2007, an engineering study of the facility, containing the following information and prepared in accordance with the following instructions:

- a. Identify every source of acrylonitrile and/or 1,3 butadiene emissions at the facility. Provide either a reasonable estimate of the emissions of acrylonitrile and 1,3 butadiene from each source at the facility, or confirm that the emission estimate provided for each source in the March 3, 2006 emission inventory represents a reasonable estimate based upon existing data. Identify the technically feasible control measures for each source of acrylonitrile and 1,3-butadiene at the facility.
- b. For each of the technically feasible control measures identified pursuant to Order 3a, determine and report the following:
 - i. The total installed capital cost;
 - ii. The annual operating and maintenance cost;
 - iii. The total annual cost, including the annualized capital cost;
 - iv. The emission reductions of acrylonitrile or 1,3-butadiene to be provided, in tons; and
 - v. The cost-effectiveness, in dollars per ton of acrylonitrile or 1,3-butadiene removed.

Respondent may use the guidance in Ohio EPA, Division of Air Pollution Control's Engineering Guide #46 in calculating the cost-

effectiveness for each technically feasible control measure for each source of acrylonitrile and 1,3-butadiene emissions.

- c. For each technically feasible control measure that has a cost-effectiveness of less than \$15,000 per ton of acrylonitrile or 1,3-butadiene removed, Respondent shall estimate the amount of time required to expeditiously implement each control measure and provide an explanation of the basis for the time estimate. In the case where an emissions source has more than one control measure with a cost-effectiveness value that is less than \$15,000 per ton of pollutant removed, Respondent shall estimate the amount of time for implementation of the control measure that will provide the greatest reduction in emissions in determining the time for implementation for that emissions source.

4. Respondent shall perform air quality dispersion modeling that documents the maximum, annual average, off-site ambient air concentrations of acrylonitrile and 1,3-butadiene resulting from the emissions from the facility. The air quality modeling shall be performed using USEPA-approved modeling techniques [40 CFR, Part 51, Appendix W (The Guideline on Air Quality Models)], five years of meteorological data, the emission inventory data submitted by Respondent, and the results of the engineering and cost-effectiveness studies that are required to be submitted by the Respondent not later than February 28, 2007. Respondent also may use Ohio EPA Division of Air Pollution Control's Engineering Guide #69 as guidance in determining the proper air quality modeling procedures. The emission inventory data submitted by Respondent shall be modified, based upon the results of the engineering study, to incorporate all the technically feasible control measures with cost-effectiveness values that are less than \$15,000 per ton of acrylonitrile or 1,3-butadiene removed, except as provided in Paragraph 7 below. In the case where an emissions source has more than one control measure with a cost-effectiveness value that is less than \$15,000 per ton of acrylonitrile or 1,3-butadiene removed, Respondent shall use the control measure that will provide the greatest reduction in emissions in the emission inventory for the air quality modeling. Respondent shall submit the results of the air quality modeling for acrylonitrile and 1,3-butadiene to the HCDOES and Ohio EPA by not later than March 31, 2007. The submittal shall include all source parameters, emission rates, resulting concentrations, and a source cross reference. In addition, all input and output files shall be submitted.

5. Ambient air concentrations of 1,3-butadiene and acrylonitrile will continue to be monitored by HCDOES at the current rooftop location at Meredith Hitchens Elementary School, 190 Main Street, in Addyston, and/or at any other locations as determined by

HCDOES to best measure ambient air quality and affected populations. Monitoring will be conducted using the methods prescribed by USEPA in the publication titled "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (Second Edition); Compendium Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters And Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)." Samples will be collected on, at least, an every six-day schedule for 24 hours until December 31, 2007. Concentrations of 1,3-butadiene and acrylonitrile shall be measurable to detection limits not greater than 0.1 ppb and 0.2 ppb, respectively. Respondent shall continue to reimburse HCDOES for costs associated with the analysis of samples collected at the monitoring location at Meredith Hitchens Elementary School, in a manner required by HCDOES and in consultation with Respondent.

6. No later than 15 days prior to the deadline for submission of the air quality modeling set forth in Paragraph 4, representatives from Respondent and the Director shall meet to discuss the current status of the air quality modeling and to address any outstanding questions or concerns.

7. Respondent agrees to include in the air quality modeling required pursuant to Paragraph 4 above, the following emission control projects: biofilter, DN Die Hoods, SAN Dryers, and Banbury Scrubbers, regardless of the cost-effectiveness values established for said projects.

VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed

by a responsible official of Respondent. For purposes of these Orders, a responsible official is as defined in OAC Rule 3745-35-02(B)(1) for a corporation.

VII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, State and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations or permit requirements applicable to Respondent.

VIII. NOTICE

All documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Hamilton County
Department of Environmental Services
250 William Howard Taft Road
Cincinnati, Ohio 43138
Attention: Kerri Castlen

and:

Ohio Environmental Protection Agency
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049
Attention: Thomas Kalman,
Manager, Enforcement Section

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

IX. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in the Waiver section of these Orders.

X. WAIVER

In order to resolve the disputed claims that have arisen in connection with the Director's November 7, 2006 Orders to Respondent, the parties, without admission of fact, violation or liability, have agreed to enter into these Orders. Respondent consents to the issuance of these Orders and agrees to comply with these Orders.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XI. EFFECTIVE DATE

The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

XII. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

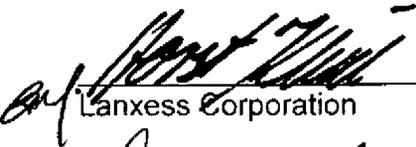
IT IS SO ORDERED:

Ohio Environmental Protection Agency



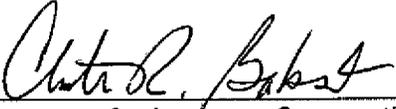
Director

MAR 13 2007
Date



Lanxess Corporation

2/21/2007
Date



Attorney for Lanxess Corporation

2-15-07
Date