COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
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Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
Hercules Incorporated
VPDES Permit No. VA0003433

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and Hercules Incorporated for the purpose of resolving certain violations of the Permit, the State Water Control Law and the VPDES Permit Regulation.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Ashland" means Ashland Inc., a corporation authorized to do business in Virginia and its members, affiliates, partners, subsidiaries, and parents. Ashland is a "person" within the meaning of Va. Code § 62.1-44.3.

2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

3. "BOD" means biochemical oxygen demand.

4. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.

5. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.

6. "DMR" means Discharge Monitoring Report

7. "Effluent" means wastewater – treated or untreated – that flows out of a treatment plant, sewer, or industrial outfall.

8. "Facility" means an industrial chemical manufacturing facility owned by Ashland and operated by Hercules Incorporated and located at 27123 Shady Brook Trail in Southampton County, Virginia. The Facility was previously owned and operated by Hercules Incorporated.

9. "Hercules" means Hercules Incorporated, a corporation authorized to do business in Virginia and its members, affiliates, partners, subsidiaries, and parents. Hercules is a wholly owned subsidiary of Ashland. Hercules is a "person" within the meaning of Va. Code § 62.1-44.3.

10. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.

11. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.

12. "Permit" means VPDES Permit No. VA0003433, which was issued under the State Water Control Law and the Regulation to Hercules effective December 12, 2007, modified January 5, 2010, and expiring December 11, 2012. Hercules requested that, despite the change in the Facility's ownership to Ashland, the Permit remain in Hercules' name.

13. "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC § 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. 9 VAC 25-31-10.

14. "Pollution" means such alteration of the physical, chemical, or biological properties of any state waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety, or welfare or to the health of animals, fish, or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of state waters or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution but which, in combination with such alteration of or discharge or deposit to state waters by other owners, is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the Board, are "pollution." Va. Code § 62.1-44.3.

15. "Regulation" means the VPDES Permit Regulation, 9 VAC 25-31-10 *et seq.*

16. "State Water Control Law" means Chapter 3.1 (§§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code.

17. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3.

18. "305(b) report" means the report required by Section 305(b) of the Clean Water Act [33 United States Code § 1315(b)] and Va. Code § 62.1-44.19:5 for providing Congress and the public an accurate and comprehensive assessment of the quality of State surface waters.

19. "TRO" means the Tidewater Regional Office of DEQ, located in Virginia Beach, Virginia.

20. "Va. Code" means the Code of Virginia (1950), as amended.

21. "VAC" means the Virginia Administrative Code.

22. "VPDES" means Virginia Pollutant Discharge Elimination System.

23. "Warning Letter" or "WL" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.

24. "WET" means whole effluent toxicity.

SECTION C: Findings of Fact and Conclusions of Law

1. Hercules operates the Facility and owns therein the chemical-production assets (referred to hereafter as the "Hercules process area") wherein industrial chemicals used in the manufacturing of paper are produced. Eastman Chemical Company ("Eastman") owns the chemical-production assets in an area of the Facility (hereafter referred to as the "Eastman process area") wherein fatty acids are produced. Eastman also owns an internal wastewater treatment plant that treats wastewater from the Eastman process area. Under contract with Eastman, Hercules provides labor resources to operate and maintain both the wastewater treatment plant and the Eastman-owned assets in the Eastman process area.

2. The Permit authorizes Hercules to discharge process water and non-contact cooling water from Outfall 002. The Permit also authorizes the discharge from Outfall 201 of treated wastewater from the internal Eastman-owned, Hercules-operated wastewater treatment

plant. Flow from Outfall 201 mixes with non-process flows from elsewhere on the Facility. The combined flows discharge to the Nottoway River through Outfall 002.

3. The Nottoway River is located in the Chowan/Dismal Swamp Basin and is not listed in DEQ's 305(b) report as impaired.

4. Hercules is responsible for all aspects of the Permit, including any unauthorized release of pollutants or contaminants from the Facility to state waters.

5. Part I.A of the Permit requires Hercules to submit DMRs for discharges from the Facility to state waters through Outfalls 201 and 002. Effluent characteristics at both outfalls are to be monitored monthly with the exception of hexavalent chromium and WET at Outfall 002, which are to be monitored quarterly.

6. In submitting its DMRs for Outfall 201 for the months of August 2009, September 2009, and February 2010 Hercules indicated that it exceeded discharge limitations contained in Part I.A.1 of the Permit for BOD.

7. In submitting its DMR for Outfall 002 for the 2nd Quarter of 2010, Hercules indicated that it exceeded the discharge limitation contained in Part I.A.1 of the Permit for WET.

8. On September 17, 2010, Hercules reported to DEQ the unauthorized discharge of ammonia-contaminated water through an Eastman cooling water return system that discharges to the outfall canal below Outfall 201 and that leads to Outfall 002. The discharge resulted in a fish kill in the outfall canal.

9. TRO issued a Warning Letter and Notices of Violation for the exceedances described in paragraphs C(6) and C(7), above, as follows: WL No. W2009-11-T-1008 (dated November 10, 2009) and NOVs W2010-04-T-0001 (dated April 13, 2010) and W2010-06-T-0003 (dated June 23, 2010). The unauthorized discharge of ammonia described in paragraph C(8), above, was addressed in NOV No. W2010-10-T-0001 (dated November 8, 2010).

10. A representative of Hercules responded to the Warning Letter and each of the Notices of Violation. Hercules and Eastman representatives meet with DEQ compliance and enforcement staff on May 5, 2010, to discuss the Permit limit exceedances. The Hercules representative attributed the BOD exceedances at Outfall 201 in August and September 2009 to the low caustic addition in the Hercules process area that caused a carryover of triethlyamine into the neutralization system that is part of the internal wastewater treatment plant. The excess levels of triethylamine, in turn, caused higher than normal BOD concentrations in the effluent that discharged through Outfall 201. The response continued that Hercules had imposed administrative control procedures to more closely monitor caustic addition and BOD sampling and would be investigating whether an in-line sampling device was available on the commercial market to monitor BOD levels in the neutralization system.

11. The Hercules representative attributed the likely causes of the BOD exceedances at Outfall 201 in February 2010 to two separate, unrelated events: a bio-mass die-off in the internal wastewater treatment plant on February 11, 2010, caused by the discharge of high-pH material when a tube in a chemical feed system was unclogged; and the release of an oil emulsion layer from a wastewater tank on February 17, 2010. The Hercules representative identified other possible contributing factors for both events and took corrective action to address each of the likely causes and contributing factors.

12. The Hercules representative determined that the likely cause of the WET exceedance at Outfall 002 reported on the 2nd Quarter 2009 DMR was "the presence of naturally occurring pathogens in the wastewater discharge" sampled on April 14, 2010. Hercules personnel took another effluent sample from Outfall 002 on May 2, 2010, and had its laboratory perform side-by-side analyses using a longer exposure period for ultraviolet treatment of a split sample. Both results from that sample were within the Permit limit for WET.

13. Representatives of Hercules and Eastman met with DEQ compliance and enforcement staff on December 3, 2010, to discuss the unauthorized discharge of ammonia-contaminated water that had been reported on September 17, 2010 and memorialized in writing. The Hercules representative indicated that a plant operator had discovered dead fish in the discharge canal between Outfalls 201 and 002 on the evening of September 16, 2010. Overnight four five-gallon buckets of dead minnows and other small fish were recovered from the canal by Hercules employees. The discharge was reported to DEQ on the morning of September 17, 2010. No stressed vegetation or other dead wildlife was observed in the canal. A "small number" of dead fish were recovered from the canal downstream of Outfall 002, but before it discharged to the Nottoway River. A Hercules representative reported that the cause of the unpermitted discharge was a leak in a cooler pipe that was part of Eastman's ammonia refrigeration system that resulted in the ammonia used as a refrigerant entering the lines that convey non-contact cooling water. The non-contact cooling water circulates through the cooling water return system and discharges to the outfall canal below Outfall 201. The cooler was taken off line as soon as the leak was discovered and subsequently replaced. Hercules' response also indicated that Eastman has modified the start-up, testing and inspection protocols for its refrigeration system and has implemented a water-analysis program for its cooling water stream.

14. Va. Code § 62.1-44.5 states that: "[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances."

15. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.

16. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a "certificate" under the statute.

17. The Department has issued no permits or certificates to Ashland or Hercules for the Facility other than VPDES Permit No. VA0003433.

18. Ammonia is considered a pollutant under 9 VAC 25-31-10 because it may cause or contribute to pollution of state waters by altering the chemical properties of state waters in a manner as is likely to render such waters harmful or detrimental or injurious to the health of animals, fish, or aquatic life.

19. The Nottoway River and the canal that discharges to the Nottoway River through Outfall 002 are surface waters located wholly within the Commonwealth and are "state waters" under State Water Control Law.

20. Based on the results of the DMRs and accompanying documentation submitted by Hercules to DEQ for the months of August 2009, September 2009 and February 2010 and for the 2nd Quarter 2010, and Hercules' responses to the Warning Letter and NOVs, the Board concludes that Hercules has violated the Permit, Va. Code § 62.1-44.5 and 9 VAC 25-31-50, by discharging treated effluent from the Facility while concurrently failing to comply with the conditions of the Permit, as described in paragraphs C(6) through C(9), above.

21. In order for Hercules to complete its return to compliance, DEQ staff and representatives of Hercules have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code § 62.1-44.15, the Board orders Hercules, and Hercules agrees to:

1. Perform the actions described in Appendix A of this Order; and

2. Pay a civil charge of $14,014 within 30 days of the effective date of the Order in settlement of the violations cited in this Order.

Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

Hercules shall include its Federal Employer Identification Number (FEIN) (20-0865835) with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF).

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of Hercules for good cause shown by Hercules, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.

2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the Facility; or (3) taking subsequent action to enforce the Order.

3. For purposes of this Order and subsequent actions with respect to this Order only, Hercules admits to the jurisdictional allegations, and agrees not to contest, but does not admit, the findings of fact and conclusions of law in this Order.

4. Hercules consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Hercules declares it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.

6. Failure by Hercules to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Hercules shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Hercules shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Hercules shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

a. the reasons for the delay or noncompliance;

b. the projected duration of any such delay or noncompliance;

c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which Hercules intends to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Hercules. Nevertheless, Hercules agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until:

a. The Director or his designee terminates the Order after Hercules has completed all of the requirements of the Order;

b. Hercules petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or.

c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to Hercules.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Hercules from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by Hercules and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.

13. The undersigned representative of Hercules certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and

legally bind Hercules to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of Hercules.

14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.

15. By its signature below, Hercules voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 5 day of August, 2011.

Maria R Sold
acting Regional Director
Department of Environmental Quality

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Hercules Incorporated voluntarily agrees to the issuance of this Order.

Date: 4/6/11 By: Andrew B Chapman, Plant Manager
(Person) (Title)
Hercules Incorporated

RECEIVED – DEQ
APR 08 2011
Tidewater Regional Office

Commonwealth of Virginia
Town/County of Southampton

The foregoing document was signed and acknowledged before me this 6th day of April, 2011, by Andrew B Chapman who is Plant manager of Hercules Incorporated on behalf of the corporation.

Melanie H Cross
Notary Public

7320385
Registration No.

My commission expires: 3-31-14

Notary seal: MELANIE H. CROSS NOTARY PUBLIC REG. #7320385 MY COMMISSION EXPIRES 3-31-14 COMMONWEALTH OF VIRGINIA

APPENDIX A
SCHEDULE OF COMPLIANCE

Hercules Incorporated shall:

1. By September 15, 2011, submit to DEQ Tidewater Regional Office, for review and approval, a corrective action plan ("plan") and schedule to:

   - enhance monitoring of BOD concentrations in the effluent from Outfall 201 and to maintain BOD concentrations within Permit limits;
   - prevent future releases of ammonia from the refrigeration system in the Eastman process area and to mitigate environmental damage in the event a release does occur; and
   - improve Hercules' responsiveness in reporting to DEQ unauthorized discharges to state waters.

   Upon approval, the plan and schedule shall become a part of and enforceable under the terms of this Order.

2. Comply with all conditions of the Permit.

3. Mail all submittals and reports required by this Appendix A to:

   Regional Director
   DEQ, Tidewater Regional Office
   5636 Southern Boulevard
   Virginia Beach, VA 23462