COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
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L. Preston Bryant, Jr
Secretary of Natural Resources

David K. Paylor
Director

Francis L. Daniel
Regional Director

STATE WATER CONTROL BOARD ENFORCEMENT ACTION

SPECIAL ORDER BY CONSENT

ISSUED TO

HERCULES, INCORPORATED

VPDES Permit No. VA0003433

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code §62.1-44.15(8a), §62.1-44.15(8d), and §62.1-44.15(11a) between the State Water Control Board and Hercules, Incorporated, for the purpose of resolving certain violations of environmental law and/or regulations.

SECTION B: Definitions:

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

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

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

4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Special Order.

6. "Regulation" means 9 VAC 25-31-10 *et seq.* - the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation.

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

8. "Permit" means VPDES Permit VA0003433.

SECTION C: Findings of Fact and Conclusions of Law

1. Hercules, Incorporated ("Hercules") owns and operates an industrial chemical manufacturing facility ("facility") at 27123 Shady Brook Trail, Courtland, Southampton County, Virginia. Hercules is subject to Virginia Pollutant Discharge Elimination System ("VPDES") Permit No. VA0003433 ("Permit"), which was issued on April 19, 2002 and expired on April 19, 2007. DEQ received a timely application to renew the Permit on October 19, 2006 and ~~has~~ administratively extended the Permit pending review of the Permit renewal application. **The Permit was reissued December 12, 2007 with an expiration date of December 11, 2012.** ABC

2. The Permit authorizes Hercules to discharge process water and non-contact cooling water from Outfall 002 and storm water associated with regulated industrial activities from Outfalls 003 and 902. Outfalls 002 and 902 are colocated and are referred to hereafter as "Outfall 002/902." All permitted outfalls discharge to the Nottoway River, which is not listed as an impaired water.

3. GEO Specialty Chemicals ("GEO") owns the chemical-production assets in an area of the facility hereafter referred to as the "GEO process area" wherein organic peroxides are produced. Under the terms of the Plant Operating Agreement between Hercules and GEO dated January 29, 2004, Hercules is responsible for operating and maintaining the GEO-owned assets in the GEO process area.

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. On July 16, 2007 Hercules reported a release of chemicals to the Nottoway River. It was reported that there had been an unauthorized discharge of approximately 640 gallons of tert-butyl hydroperoxide ("TBHP") and approximately 1,200 gallons of dimethylbenzyl alcohol ("DMBA") from a process reactor heat exchanger in the GEO process area to the drainage ditch that conveys non-contact cooling water from the GEO process area to the Nottoway River via Outfall 002/902. An unknown quantity of non-contact cooling water from other facility processes was also contaminated with TBHP and DMBA and discharged to the Nottoway River via Outfall 002/902.

6. On July 16, 2007 DEQ compliance staff visited the site in response to the Hercules report and observed that Hercules personnel had taken immediate steps to take corrective action to contain the unauthorized discharge, including the removal of free product that had been captured by oil-absorbent booms in the drainage ditch that carries non-contact cooling water from the GEO process area.

7. Hercules reported that the root cause of the TBHP/DMBA release from the heat exchanger was the failure of a Hercules operator to drain material from the heat exchanger at the end of the previous production cycle. The material left in the heat exchanger decomposed over several weeks, built pressure, and caused the internal carbon block to fail. Introduction of additional raw material, including TBHP and DMBA, to the heat exchanger tubes resulted in the release of TBHP and DMBA to the cooling water discharge system and subsequently into State waters.

8. The drainage ditch that conveys non-contact cooling water from the GEO process area discharges to a drainage canal that conveys combined process water, non-contact cooling water and storm water to the Nottoway River through Outfall 002/902.

9. The Nottoway River and the drainage canal that conveys the combined flows to the Nottoway River through Outfall 002/902 are State waters.

10. The Material Safety Data Sheet for TBHP describes it as a flammable, liquid, reactive peroxide with "appreciable" (10% or more) water solubility, and as harmful to invertebrates and fish and toxic to algae and higher aquatic life.

11. The TBHP/DMBA release resulted in a fish kill in State waters. Three dead fish were found in the Nottoway River; several hundred minnows and small fish were killed in the drainage canal that conveys combined process water, non-contact cooling water and storm water to the Nottoway River through Outfall 002/902.

12. On July 17, 2007 DEQ staff conducted a fish-kill investigation of the Nottoway River in the vicinity of where the drainage canal from the facility discharges to the river. DEQ incurred costs of $162.18 in investigating the fish kill.

13. The Permit does not authorize Hercules to release either TBHP or DMBA to State waters. Hercules violated Part II.F.1 of the Permit by discharging TBHP and/or DMBA to State waters. Part II.F.1 of the Permit provides that, except in compliance with a permit issued by the Board, it is unlawful for any person to "[d]ischarge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances."

14. On August 13, 2007 DEQ issued Notice of Violation ("NOV") W2007-07-T-0006 to Hercules. The NOV advised Hercules of apparent violations, including the unauthorized discharge into State waters of TBHP and DMBA, and applicable Permit and Regulatory requirements.

15. Hercules submitted to DEQ a spill report dated July 23, 2007 and responded to the NOV by letter dated August 22, 2007. Hercules reported that it had taken the following actions in response to the unauthorized discharge of TBHP and DMBA: recovered nearly 1,000 gallons of water contaminated with organics and returned it to the GEO process; had sampled the water in the Nottoway River and submitted the results to the State Toxicologist; had the heat exchanger in the GEO process area repaired and reinstalled; had modified standard operating procedures for the GEO process area to prevent a recurrence; and, as an added precaution, had disconnected the cooling water discharge from the GEO process heat exchanger so that now any cooling water used in this GEO process heat exchanger discharges to a containment area. This water is then checked prior to being pumped to the non-contact cooling water system. If there were any issues or concerns, the water is pumped to the GEO product recovery tank.

16. On September 11, 2007 DEQ enforcement staff met with representatives of Hercules and GEO to discuss the TBHP/DMBA release. It was confirmed that the release was the result of an internal failure of the heat exchanger in the GEO process area caused by operator error. Staff also observed the corrective action that had been taken to prevent future releases from the heat exchanger.

SECTION D: Agreement and Order

Accordingly the State Water Control Board by virtue of the authority granted it by Va. Code § 62.1-44.15(8a), (8d) and (11a), orders Hercules, and Hercules voluntarily agrees to perform the actions described in Appendix A. In addition, the Board orders and Hercules voluntarily agrees to pay within 30 days of the effective date of this Order, in settlement of the violations cited in this Order (1) a civil charge of $12,800 and (2) $162.18 as reimbursement for expenses DEQ incurred in investigating the fish kill. The payments shall include Hercules' Federal Identification Number and shall reference that payment is being made as a requirement of this Order. Payments shall be made by two checks, each payable to the Treasurer of Virginia, delivered to:

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

The check for $162.18 shall be annotated with the legend "Fish Kill Investigation Reimbursement."

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of Hercules, for good cause shown by Hercules, or on its own motion after notice and opportunity to be heard.

2. This Order only addresses and resolves those violations specifically identified herein, including those matters addressed in the above referenced Notice of Violation. 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 as may be authorized by law; or (3) taking subsequent action to enforce the Order. This Order shall not preclude appropriate enforcement actions by other federal, state, or local regulatory authorities for matters not addressed herein. In any such action by the Board or the Director or other federal, state, or local regulatory authority, Hercules reserves all rights and defenses it might have in connection therewith.

3. For purposes of this Order and subsequent actions with respect to this Order, Hercules admits the jurisdictional allegations, factual findings, and conclusions of law contained herein. However, Hercules does not admit findings of fact and conclusions of law contained herein for the purposes of any other proceeding by the Board or the Director or any other person or entity.

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, Va. Code §§ 2.2 - 4000 *et seq.*, 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 in connection with the entry of this Order and the violations specifically identified in this Order. 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 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, nor shall anything herein preclude Hercules from raising any factual or legal defense thereto except to the extent expressly waived hereby.

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 act 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 in writing 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 within 24 hours 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. Notwithstanding the foregoing, 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 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. By its signature below, Hercules voluntarily agrees to the issuance of this Order.

And it is so ORDERED this day of July 30, 2008.

Maria R Nold

~~Francis L. Daniel~~ Maria R Nold
Deputy Regional Director

Hercules, Incorporated voluntarily agrees to the issuance of this Order.

By: Andrew B. Chapman

Date: 10/9/07

Commonwealth of Virginia
City/County of Southampton

The foregoing document was signed and acknowledged before me this 9th day of October, 2007, by Andrew B. Chapman (*name*), who is Plant Manager (*title*) of Hercules, Incorporated, on behalf of Hercules.

Judy B. Belcher
Notary Public

My commission expires: 12-31-08.

JUDY B. BELCHER COMMONWEALTH OF VIRGINIA NOTARY PUBLIC

Judy B. Belcher
NOTARY PUBLIC
Commonwealth of Virginia
Reg. # 279433
My Commission Expires
December 31, 2008

APPENDIX A

Hercules shall:

1. Within 90 days of the effective date of this Order submit to DEQ Tidewater Regional Office, for review and approval, a corrective action plan and schedule that fully examines the root cause of the release of TBHP/DMBA to State waters; describes actions Hercules has taken and plans to take to prevent future releases from the GEO process area and to mitigate environmental damage in the event a release does occur; and thoroughly evaluates ways in which Hercules can increase ground water reuse in the GEO process area. Upon approval, said plan and schedule shall become a part of and enforceable under the terms of this Order.

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

   Mr. Francis L. Daniel, Regional Director
   DEQ, Tidewater Regional Office
   5636 Southern Boulevard
   Virginia Beach, VA 23462