STATE OF MICHIGAN CIRCUIT COURT FOR THE 30TH JUDICIAL CIRCUIT INGHAM COUNTY

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY,

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Case No. 06-997-CE

BASF CORPORATION,

Defendant.

CONSENT JUDGMENT

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CONSENT JUDGMENT

The Plaintiff is the Michigan Department of Environmental Quality (MDEQ).

The Defendant is BASF Corporation (Defendant), a Delaware Corporation.

This Consent Judgment (Judgment) requires the performance of interim response activities, the preparation and performance of a remedial investigation, and preparation and performance of an interim response designed to meet criteria (IRDC) at the Defendant's Riverview facility located at 18099 West Jefferson Avenue, Riverview, Michigan. Defendant agrees not to contest the authority or jurisdiction of the Court to enter this Judgment or any terms or conditions set forth herein.

The entry of this Judgment by Defendant is for settlement purposes only and is neither an admission or denial of liability with respect to any issue dealt with in this Judgment nor an admission of any factual allegations or legal conclusions stated or implied herein.

The Parties agree, and the Court by entering this Judgment finds, that the response activities set forth herein are necessary to abate the release or threatened release of hazardous substances into the environment, to control future releases, and to protect public health, safety, and welfare, and the environment.

NOW, THEREFORE, before the taking of any testimony, and without this Judgment constituting an admission of any of the factual or legal allegations in the Complaint or as evidence of the same, and upon the consent of the Parties, by its attorneys, it is hereby ADJUDGED:

I. JURISDICTION

- 1.1 This Court has jurisdiction over the subject matter of this action pursuant to MCL 324.3115 and MCL 324.20137. This Court also has personal jurisdiction over the Defendant. Defendant waives all objections and defenses that it may have with respect to jurisdiction of the Court or to venue in this Circuit with respect to the Complaint in the matter or entry of this Judgment.
- 1.2 The Court determines that the terms and conditions of this Judgment are reasonable, adequately resolve the environmental issues raised, and properly protect the interests of the people of the State of Michigan.
- 1.3 The Court shall retain jurisdiction over the Parties and subject matter of this action to enforce this Judgment and to resolve disputes arising under this Judgment, including those that may be necessary for its construction, execution, or implementation, subject to Section XVI (Dispute Resolution).

II. PARTIES BOUND

2.1 This Judgment shall apply to and be binding upon Plaintiff and Defendant and their successors. No change or changes in the ownership or corporate or other legal status of Defendant, including, but not limited to, any transfer of assets or of real or personal property, shall in any way alter Defendant's responsibilities under this Judgment. After the Effective Date of this Judgment, Defendant shall provide the MDEQ with written notice prior to the transfer of ownership of part or all of the Upland Portion of the Facility and the Sediment Removal Area (SRA) that is owned by Defendant and shall also provide a copy of this Judgment to any

subsequent owners or successors prior to the transfer of any ownership rights. Defendant shall comply with the requirements of Section 20116 of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.20116, and the Part 201 Rules.

- 2.2 Notwithstanding the terms of any contract that Defendant may enter with respect to the performance of response activities pursuant to this Judgment, Defendant is responsible for compliance with the terms of this Judgment and shall ensure that its contractors, subcontractors, laboratories, and consultants perform all response activities in conformance with the terms and conditions of this Judgment.
- 2.3 The signatories to this Judgment certify that they are authorized to execute this Judgment and to legally bind the Parties they represent.

III. STATEMENT OF PURPOSE

In entering into the Judgment, the mutual objectives of the Parties are to minimize litigation and ensure that Defendant: (a) conducts interim response activities to cease the migration, discharge, or venting of groundwater, as defined in the Statement of Work (SOW), from the Containment Area into the surface waters of the Trenton Channel of the Detroit River and properly manages all hazardous substances at the Containment Area to prevent unacceptable exposures and the migration of hazardous substances from the Containment Area above applicable criteria; (b) removes up to 30,000 cubic yards of sediments within the Trenton Channel that are located within the Sediment Removal Area (SRA); (c) conducts a remedial investigation that complies with Part 201 to determine the nature, extent and impact of hazardous substances and any threat to the public health, safety, or welfare, or the environment caused by

the release or threat of release of hazardous substances at the Upland RI Area; (d) develops and submits to the MDEQ an approvable IRDC for the Upland Portion of the Facility that complies with Part 201 including, but not limited to, Sections 20118, 20120a, 20120b, and 20120d of Part 201 and the Part 201 Rules; (e) implements the MDEQ-approved IRDC in accordance with its approved implementation schedule; and (f) reimburses the State for Past and Future Response Activity Costs as described in Section XIV (Reimbursement of Costs).

3.2 The Parties agree and acknowledge that this Judgment sets forth the mechanisms and procedures for addressing the Part 201 matters for the Upland Portion of the Facility and the SRA. Any Submissions provided to the State shall be handled in the manner established under Section XIII (Submissions and Approvals) of this Judgment.

IV. DEFINITIONS

- 4.1 "Containment Area" means the area of the Upland Portion of the Facility contained within the Primary Wall and Slurry Wall, as described in the SOW (Attachment C) and including the Primary Wall and Slurry Wall. BASF shall provide a legal description to the MDEQ of this area as part of the Notification of Construction of the IRA.
- 4.2 "Defendant" means BASF Corporation, formerly known as BASF Wyandotte Corporation, and its successors and assigns. BASF, as it currently exists, was formed on December 31, 1985 by the merger of BASF Wyandotte Corporation, into Inmont Corporation. The surviving corporation was the Inmont Corporation which upon the effective date of the merger changed its name to BASF Corporation.

- 4.3 "Day" or "days" means a calendar day or days unless specifically noted otherwise herein. "Business Day" means a day other than a Saturday, Sunday or State holiday. Under this Judgment, in computing a period of time based upon business days where the last day would fall on a Saturday, Sunday or State holiday, the period shall run until the close of business of the next business day.
- 4.4 "Judgment" means this Consent Judgment and any attachment hereto, including the SOW, any future modifications, and any MDEQ-approved reports or plans, including any specifications and schedules, which upon the approval of the MDEQ, shall be incorporated into and become an enforceable part of this Consent Judgment.
- 4.5 "Effective Date" means the date that the Court enters this Judgment. All dates for the performance of obligations under this Judgment shall be calculated from the Effective Date.
- 4.6 "Facility" means the Property identified in Attachment A and any area, place, or property where a hazardous substance, which originated at and emanates from the Property and is present in concentrations that exceed the requirements of Section 20120a(1)(a) or (17) of the NREPA, MCL 324.20120a(1)(a) or (17) or the cleanup criteria for unrestricted residential use under Part 213, Leaking Underground Storage Tanks, of the NREPA, has been released, deposited, or disposed of, or otherwise comes to be located.
- 4.7 "Future Response Activity Costs" means costs lawfully incurred by the State after the dates set forth in the Summary Report, attached hereto as Attachment B, to negotiate this Judgment; to oversee, enforce, monitor, and document compliance with this Judgment; and to perform response activities required by this Judgment at the Upland Portion of the Facility and

- SRA. Such response activities may include, but are not limited to: monitor response activities; observe and comment on field activities; review and comment on Submissions; collect and evaluate samples; purchase equipment and supplies to perform monitoring activities; perform response activities; attend and participate in meetings; prepare cost reimbursement documentation; and perform response activities pursuant to Section IX (Emergency Response), and Paragraph 6.13 (MDEQ's Performance of Response Activities).
- 4.8 "Interim Response Designed to Meet Criteria" or "IRDC" means a plan that satisfies the requirements of Part 201 of the NREPA, including, but not limited to, Sections 20118, 20120a, 20120b, and 21020d and the Part 201 Administrative Rules, for the Upland Portion of the Facility.
- 4.9 "IRA" means the interim response activities to be undertaken in accordance with Part 201 to: (1) cease the migration, discharge, or venting of groundwater, as defined in the SOW, from the Containment Area to the surface water within the Trenton Channel of the Detroit River; (2) to properly manage hazardous substances present at the Containment Area to prevent unacceptable exposures and to prevent the migration of hazardous substances from the Containment Area in concentrations exceeding applicable criteria; and (3) to remove up to 30,000 cubic yards of sediment from the SRA.
- 4.10 "Low Water Datum Level" means the sloping surface of the Detroit River when Lake St. Clair is at an elevation of 572.3 (International Great Lakes Datum (IGLD) 1985) feet above sea level and Lake Erie is at an elevation of 569.2 (IGLD 1985) feet above sea level.

 [Reference: National Oceanic and Atmospheric Administration, National Ocean Service, Detroit River Soundings, 9th Edition, March 9, 1985.]

- 4.11 "MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those authorized persons or entities acting on its behalf. Environmental functions formerly assigned to the Michigan Department of Natural Resources (MDNR) were transferred to the MDEQ by Executive Order 1995-18, effective October 1, 1995.
- 4.12 "Part 31" means Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.3101 et seq and the Part 31 Administrative Rules (Part 31 Rules).
- 4.13 "Part 201" means Part 201, Environmental Remediation, of the NREPA, MCL 324.20101 et seq and the Part 201 Administrative Rules (Part 201 Rules).
 - 4.14 "Parties" mean the Plaintiff and Defendant.
- 4.15 "Plaintiff" means the Michigan Department of Environmental Quality, and its successor entities, and those authorized persons or entities acting on its behalf.
- 4.16 "Past Response Activity Costs" means those costs associated with the Upland Portion of the Facility and SRA that the MDEQ lawfully incurred and paid up to and through the dates set forth in the Summary Report attached hereto as Attachment B.
- 4.17 "Property" means the property located at 18099 West Jefferson Avenue,
 Riverview, Wayne County, Michigan and legally described in Attachment A, excluding the area
 between the Low Water Datum Level and the U. S. Harbor Line.

- 4.18 "Remedial Investigation" or "RI" means an evaluation to assess conditions at the Upland RI Area, and the collection of any other data necessary to determine the nature, extent, and impact of a release or threat of release, and support the selection and implementation of an appropriate IRDC in compliance with Part 201 and the Part 201 Rules.
- 4.19 "RRD" means the Remediation and Redevelopment Division of the MDEQ and its successor entities.
- 4.20 "Scope of Work" or "SOW" mean the plan attached to this Judgment as

 Attachment C, that sets forth the minimum interim response activities required to be undertaken

 by BASF to achieve the performance objectives set forth in Paragraph 6.1(a) of this Judgment.
- 4.21 "Sediment Removal Area" or "SRA" means the Property Sediment Removal Area (SRA) and the Boat Launch Sediment Removal Area (SRA) as depicted in Attachment E. The Property SRA is defined by the northern and southern property boundaries in Attachment A, the U.S. Harbor Line, and the Low Water Datum Level for the Property. The Boat Launch SRA is defined by the northern and southern property boundaries for the Boat Launch property as set forth in Attachment D, the U.S. Harbor Line, and Low Water Datum Level for the Boat Launch property.
- 4.22 "State" or "State of Michigan" means the State of Michigan, including the Michigan Department of Attorney General and the Michigan Department of Environmental Quality, and any authorized representatives acting on their behalf.

- 4.23 "Submissions" mean all plans, reports, schedules, notifications, and other submittals that Defendant is required to submit to the MDEQ or the State pursuant to this Judgment.
- 4.24 "Upland Portion of the Facility" shall mean the Property defined in Paragraph
 4.17, and any area, place, or property, where a hazardous substance that originated at and is
 emanating or has emanated from the Property is present at concentrations that exceed the
 requirements of Section 20120a(1)(a) or (17) of the NREPA, MCL 324.20120a(1)(a) or (17), or
 the cleanup criteria for unrestricted residential use under Part 213, Leaking Underground Storage
 Tanks, of the NREPA, excluding the area beyond the Low Water Datum Level.
- 4.25 "Upland RI Area" means the area of the Upland Portion of the Facility excluding the Containment Area.
- 4.26 Unless otherwise defined herein, all terms used in this Judgment which are defined in Part 3 of the NREPA, MCL 324.301; Part 31 of the NREPA, MCL 324.3101 et seq; Part 201 of the NREPA, MCL 324.20101 et seq; or the Part 201 Rules, 1990 AACS R 299.5101 et seq shall have the same meaning in this document as in Parts 3, 31 and 201 of the NREPA and the Part 201 Administrative Rules in effect on the Effective Date of this Judgment.

V. COMPLIANCE WITH STATE AND FEDERAL LAWS

5.1 All actions required to be taken pursuant to this Judgment shall be undertaken in accordance with the requirements of all applicable or relevant and appropriate state and federal laws, rules, regulations, and permits, including, but not limited to, Part 201, the Part 201 Rules,

and laws relating to occupational safety and health. Other agencies may also be called upon to review the conduct of response activities under this Judgment.

5.2 This Judgment does not obviate Defendant's obligations to obtain and maintain compliance with any permit or license required under any applicable state or federal laws, rules or regulations that are necessary for the performance of response activities required under this Judgment.

VI. PERFORMANCE OF RESPONSE ACTIVITIES

- 6.1 Defendant shall implement all response activities necessary to comply with Part 201 and achieve and maintain the performance objectives set forth herein for the Upland Portion of the Facility and SRA; ensure the effectiveness and integrity of the IRA and IRDC; and assure the protection of public health, safety, and welfare and the environment.
 - (a) <u>Interim Response Activity</u>. The performance objectives of the IRA are to:
 - (i) Cease the migration, discharge, or venting of groundwater, as defined in the SOW, from the Containment Area into the surface water within the Trenton Channel of the Detroit River;
 - (ii) Properly manage all hazardous substances at the Containment Area to prevent unacceptable exposures and the migration of hazardous substances from the Containment Area above applicable criteria;
 - (iii) Remove up to 30,000 cubic yards of sediments within the Trenton Channel that are located within the SRA, as set forth in the SOW; and
 - (iv) Achieve and maintain compliance with any other interim response activities required pursuant to Part 201 with respect to the Property.

- (b) Remedial Investigation. The performance objectives of the RI are to:
- (i) Adequately assess environmental conditions at the Upland RI Area;
- (ii) Obtain all necessary information for the Upland RI Area to sufficiently evaluate the relevant exposure pathways necessary to support the development, selection and MDEQ approval of an IRDC for the Upland Portion of the Facility that, when implemented, assures the protection of the public health, safety, welfare, and the environment in accordance with Part 201; and
- (iii) submit a RI Report for the Upland RI Area to the MDEQ for review and approval.
- (c) IRDC for the Upland Portion of the Facility. The performance objectives are to implement an IRDC for the Upland Portion of the Facility that addresses all releases and threats of releases of hazardous substances in all environmental media at the Upland Portion of the Facility by achieving the cleanup criteria and other requirements set forth in Part 201 including, but not limited to, Sections 20118, 20120a, 20120b, and 20120d of the NREPA and the Part 201 Rules. The IRDC shall include the IRA conducted under this Judgment and shall assure the protection of the public health, safety, and welfare and the environment and allow for the continued use of the Upland Portion of the Facility consistent with local zoning.
- 6.2 In accordance with this Judgment, Defendant shall assure that all work plans for conducting response activities are designed to achieve the performance objectives set forth in Paragraph 6.1 of this Judgment. Defendant shall develop each work plan and perform the response activities described in each work plan in accordance with the requirements of Part 201

and this Judgment. If there is a conflict between the requirements of this Judgment and any MDEQ-approved work plan, the requirements of this Judgment shall prevail.

- Quality Assurance Project Plan (QAPP). Within forty-five (45) days of the 6.3 Effective Date of this Judgment, Defendant shall submit to the MDEQ a Quality Assurance Project Plan (QAPP), which describes the quality control, quality assurance, sampling protocol, and chain of custody procedures that will be used in carrying out the tasks required by this Judgment. The QAPP shall be developed in accordance with the U.S. EPA's "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans" QA/G-5, December 2002; and the American National Standard ANSI/ASQC E4-1994 "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs." Defendant shall utilize recommended sampling methods and analytical methods and detection limits specified in "Operational Memorandum No. 2. Sampling and Analysis, dated October 22, 2004, including all applicable attachments." Defendant shall also utilize the MDEQ 2002 Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria (S3TM) to determine the number of samples for verifying the cleanup. Defendant shall comply with the above documents or documents that supersede or amend these documents, or other methods demonstrated by Defendant to be appropriate and approved by the MDEQ.
- 6.4 <u>Health and Safety Plan (HASP)</u>. Within forty-five (45) days of the Effective Date of this Judgment, Defendant shall submit to the MDEQ a HASP that is developed in accordance with the standards promulgated pursuant to the National Contingency Plan, 40 CFR 300.150, the Occupational Safety and Health Act of 1970, 29 CFR 1910.120, and the Michigan Occupational Safety and Health Act, 1974 PA 154, amended, MCL 408.1001 et seq.. The Health and Safety

Plan is not subject to the MDEQ's approval under Section XIII (Submissions and Approvals) of this Judgment. All response activities performed by Defendant pursuant to this Judgment shall be undertaken in accordance with the HASP.

- 6.5 (a) Interim Response Activities (IRA). In accordance with the time frames set forth in Paragraph 6.5(b), Defendant shall perform all necessary interim response activities, including but not limited to the response activities set forth in Attachment C, the SOW, that are necessary to construct the IRA, including sediment removal, and shall submit to the MDEQ the Notification of Construction of the IRA pursuant to Paragraph 23.1 of this Judgment. The IRA startup period shall commence on the date of issuance of the MDEQ's Certification of Construction of the IRA and shall run for a period of one (1) year from issuance of the MDEQ's Certification of Construction of Construction of the IRA. Defendant shall perform all interim response activities including, but not limited to, the response activities identified in the SOW that are necessary to achieve the performance objectives set forth in Paragraph 6.1(a) of this Judgment by the completion of the IRA startup period. The IRA shall be incorporated into the IRDC.
- Notification of Construction of the IRA shall be submitted within two years after completion of the dredging activities in the SRA, but in no event, later than September 30, 2008 unless there is a Force Majeure Event or there is agreement between the parties to modify the date as set forth in Section XXII (Modifications of the Judgment). For purposes of this Judgment, completion of the dredging activities in the SRA shall be deemed to have occurred when: (1) pre-dredging and post-dredging surveys indicate that sediments have been removed to the target dredging depth identified in the

sediment removal plan or (2) the total final volume of 30,000 cubic yards of sediments and materials have been removed, whichever of (1) or (2) is achieved first. The determination of the total final volume of 30,000 cubic yards of sediments shall be done in accordance with the SOW.

- funding under the Great Lakes Legacy Act, 33 USC § 1268(c)(3) et seq (GLLA) in order to remove additional sediments from the Trenton Channel of the Detroit River in areas contiguous to the SRA. The parties agree to cooperate so that the sediment removal undertaken by Defendant in the SRA can be included as part of a non-federal share or in kind contribution for purposes of the GLLA. In the event that MDEQ applies for GLLA funding, within thirty (30) days after a request by MDEQ, Defendant agrees to provide copies to MDEQ of all invoices associated with the removal of sediments within the SRA. The parties agree that MDEQ's application for GLLA funding shall not increase dredging obligations of the Defendant under this Judgment, including the SOW for the IRA.
- 6.6 Remedial Investigation (RI). Within eighteen (18) months of the MDEQ's issuance of a Certification of Construction of the IRA pursuant to Paragraph 23.1 of this Judgment, but in no event later than March 31, 2010, Defendant shall submit a RI Report to the MDEQ for review and approval in accordance with Section XIII (Submissions and Approvals) that achieves the performance objectives set forth in Paragraph 6.1(b) of this Judgment. Prior to the submission of the RI Report Defendant shall perform response activities including, but not limited to, the response activities identified below that are necessary to develop and submit an RI Report for the Upland RI Area:

- (a) Defining the nature and extent of contamination that originated at and has migrated from the Property and is present at the Upland RI Area. This includes defining the extent to which hazardous substances have migrated or are expected to migrate from the Property prior to implementation of the IRA and an evaluation of hazardous substances which have or may migrate along preferential pathways at the Upland Portion of the Facility. Preferential pathways may include but are not limited to, storm drains, sewer systems, and the Monguagon Creek. Data and information previously collected or obtained regarding the nature and extent of contamination at the Property shall be included in the RI.
- (b) Defining the risks to the public health, safety, and welfare, and to the environment and natural resources posed by environmental contamination present at the Upland RI Area.
- (c) Determining the relevant exposure pathways present at the Upland RI Area.
- (d) Defining the amount, concentration, hazardous properties, environmental fate, persistence, location, mobility, and physical state of hazardous substances present at the Upland RI Area.
- (e) Defining the geology, hydrogeology, and groundwater flow and gradients at the Upland RI Area.
- (f) Defining the extent to which natural or man-made barriers currently contain the hazardous substances and the adequacy of the barriers.
- 6.7 <u>IRDC for the Upland Portion of the Facility</u>. Within ninety (90) days after receiving MDEQ approval of the RI Report, Defendant shall submit an IRDC to the MDEQ for

review and approval in accordance with Section XIII (Submissions and Approval). The IRDC, when implemented, shall be capable of achieving the performance objectives set forth in Paragraph 6.1(c) of this Judgment and shall include, but is not limited to:

- (a) The IRA including, but not limited to the response activities identified in the SOW (Attachment C).
- (b) All components required by Sections 20118, 20120a, 20120b and 20120d of the NREPA, and the Part 201 Rules.
- (c) A detailed description of the specific work tasks to be conducted pursuant to the IRDC, a description of how these tasks will meet the performance objectives set forth in Paragraph 6.1(c), and a description and supporting documentation of how the results of the remedial investigation and other response activities that have been performed at the Upland Portion of the Facility support the selection of the response activity identified in the IRDC.
- (d) A plan for obtaining access to any properties not owned or controlled by Defendant that is needed to perform response activities identified in the IRDC. If Defendant proposes to perform an IRDC that relies on the cleanup criteria established under Section 20120a(1)(b) through (j) or (2) of the NREPA and the IRDC provides for land and resource use restrictions, monitoring, operation and maintenance, or permanent markers as prescribed in Section 20120b(3)(a) through (d) of the NREPA, the IRDC shall include documentation from property owners, easement holders, or local unit of governments that the necessary access to these properties has been or will be obtained and that any proposed land or resource use restriction can and will be placed or enacted.

- (e) A description of the nature and amount of waste materials expected to be generated during the performance of response activities and the name and location of the facilities Defendant proposes to use for off-site transfer, storage, treatment, or disposal of those waste materials.
- (f) Identification of the cleanup criteria and performance standards for purposes of Rule 299.5520(11)(b) and Paragraph 6.12(b)(ii) and identification of when completion of construction of the IRDC will occur for purposes of Paragraph 23.2(a).
- 6.8 Upon receipt of the MDEQ's approval of the IRDC, Defendant shall implement the IRDC and submit progress reports in accordance with the MDEQ-approved IRDC and the schedule contained therein. The MDEQ-approved IRDC and schedule shall be incorporated into this Judgment and become an enforceable part of this Judgment. Implementation of the IRDC may include, but is not limited to, the following:
 - (a) The establishment of land use and resource use restrictions or institutional controls; and
 - (b) The establishment and maintenance of financial assurance to assure the effectiveness and integrity of the response activities set forth in the IRDC. In the event the MDEQ-approved IRDC relies upon the clean up criteria established under Section 20120a(1)(f) through (j) or 20120a(2) and financial assurance is determined by the MDEQ to be a necessary component of the IRDC, Defendant shall establish and maintain financial assurance in a mechanism acceptable to the MDEQ to assure Defendant's ability to pay for monitoring, operation and maintenance, oversight, and other costs determined by the MDEQ to be necessary to assure the effectiveness and integrity of the response

activities set forth in the IRDC (hereinafter collectively referred to as "O&M Costs") in perpetuity.

determines that the proposed IRDC is acceptable for public review, a public notice regarding the availability of the IRDC will be published and the IRDC shall be made available for review and comment for a period of not less than thirty (30) days. The dates and length of the public comment period shall be established by the MDEQ. The MDEQ will hold a public meeting in accordance with Sections 20120d(1) and (3) of the NREPA. Following the public review and comment period and the public meeting, the MDEQ may refer the proposed IRDC back to Defendant for revision to address public comments and MDEQ's comments. In addition, Defendant shall provide information to the MDEQ for a responsiveness summary document that explains the reasons for the selection or approval of the IRDC, or Defendant shall prepare any portions of the draft responsiveness summary document requested by the MDEQ. The MDEQ will prepare the final responsiveness summary document that explains the reasons for the selection or approval of the IRDC in accordance with the provisions of Sections 20120d(5) and (6) of the NREPA.

6.10 Modification of a Response Activity Work Plan

(a) If the MDEQ determines that a modification to a response activity work plan, including the IRA, or the MDEQ-approved IRDC is necessary to meet and maintain the applicable performance objectives specified in Paragraph 6.1, to comply with Part 201, or to meet any other requirement of this Judgment, the MDEQ may require that such modification be incorporated into the response activity work plan or previously MDEQ-

approved IRDC under this Judgment. If extensive modifications are necessary, the MDEQ may require Defendant to develop and submit a new response activity work plan or IRDC. Defendant may request that the MDEQ consider a modification to a response activity work plan or MDEQ-approved IRDC by submitting such request for modification along with the proposed change in the response activity work plan or IRDC and the justification for that change to the MDEQ for review and approval. Any such request for modification by Defendant must be forwarded to the MDEQ at least thirty (30) days prior to the date that the performance of any affected response activity is due. Any modifications to a work plan or the MDEQ-approved IRDC or any new work plans shall be developed in accordance with the applicable requirements of this Section and shall be submitted to the MDEQ for review and approval in accordance with the procedures set forth in Section XIII (Submissions and Approvals).

(b) Upon receipt of the MDEQ's approval, Defendant shall perform the response activities specified in a modified response activity work plan or IRDC or a new work plan or new IRDC in accordance with the MDEQ-approved implementation schedules.

6.11 Progress Reports.

(a) Defendant shall provide to the MDEQ Project Coordinator written monthly progress reports regarding response activities and other matters at the Upland Portion of the Facility and SRA related to the implementation of this Judgment. The MDEQ may provide comments on the progress reports but the progress reports are not subject to the MDEQ's review and approval under Section XIII (Submissions and Approvals) of this Judgment. The progress reports shall include the following:

- (i) A detailed description of the specific work tasks and response activities that have been conducted during the previous reporting period and if the activities are not subject to MDEQ review and approval, a description of how these tasks and response activities will meet the performance objectives set forth in Paragraph 6.1(a) through (c);
- (ii) All results of sampling and tests and other data collected and/or received by Defendant, its employees or authorized representatives during the previous reporting period relating to the response activities performed pursuant to this Judgment;
- (iii) The status of any access issues that have arisen, which affect or may affect the performance of response activities, including documentation of property ownership, lease agreements, easement agreements, and access agreements, and, if a problem with access arises, a description of how Defendant proposes to resolve those issues;
- (iv) A description of the nature and amount of waste materials that were generated and the name and location of the facilities that were used for the off-site transfer, storage, treatment, or disposal of those waste materials;
- (v) A detailed description of data collection and specific work tasks and other response activities, including implementation schedules, that will be conducted during the next reporting period and if the activities are not subject to MDEQ review and approval, a description of how those tasks and response activities will meet the performance objectives set forth in Paragraph 6.1 of this Judgment.

- (vi) Any other relevant information regarding other activities or matters at the Upland Portion of the Facility or SRA that affect or may affect the implementation of the requirements of this Judgment.
- (b) The first progress report shall be submitted to the MDEQ within sixty (60) days following the Effective Date of this Judgment. Thereafter, progress reports shall be submitted monthly unless otherwise specified in the MDEQ-approved IRDC. The progress reports shall provide the information in Paragraph 6.11(a) under separate headings for each discrete response activity required under Paragraphs 6.5, 6.6 and 6.7 of this Judgment or other individual task that may arise.

6.12 Voidance and Nullification of MDEQ Approval of the IRDC

- (a) If Defendant chooses to perform an IRDC that relies on the cleanup criteria established under Section 20120a(1)(f) through (j) or (2) of the NREPA and Defendant allows a lapse of, or does not comply with, the applicable provisions of Section 20120b(3) of the NREPA, the MDEQ's approval of the IRDC is void from the time of the lapse or violation until the lapse or violation is corrected in accordance with Paragraph 6.12(c) of this Judgment and to the satisfaction of the MDEQ. With respect to a land use or resource use restriction, a lapse of or violation shall include the following;
 - (i) A court of competent jurisdiction determines that a land use or resource use restriction is unlawful;
 - (ii) A land use or resource use restriction is not filed or enacted in accordance with this Judgment or the MDEQ-approved IRDC;
 - (iii) A land use or resource use restriction is violated or is not enforced by the controlling entity; or

- (iv) A land use or resource use restriction expires or is modified or revoked without MDEQ approval.
- (b) The MDEQ's approval of the IRDC shall be nullified until the lapse or violation is corrected to the satisfaction of the MDEQ if any of the following occur:
 - (i) If unknown conditions that existed at the Upland Portion of the Facility when the IRDC was implemented are discovered and such conditions result in the IRDC no longer being protective of the public health, safety, or welfare, or the environment;
 - (ii) Failure of the IRDC to comply with the applicable cleanup criteria and performance standards set forth in the MDEQ-approved IRDC and the performance objectives set forth in Paragraph 6.1(c) of this Judgment; or
 - (iii) The MDEQ determines that the IRDC is not effective or reliable because the response activity repeatedly fails, notwithstanding repeated cures within ninety (90) days of discovery of the failure by either Defendant or the MDEQ. This paragraph shall not affect Defendant's obligations pursuant to Section IV of the SOW.
- (c) Within thirty (30) days of Defendant becoming aware of a lapse or violation under Paragraph 6.12(a) or (b), Defendant shall provide to the MDEQ a written notification of such lapse or violation. This notification shall include a description of the nature of the lapse or violation, an evaluation of the impact or potential impact of the lapse or violation on the effectiveness and integrity of the IRDC, and one or more of the following as appropriate, for review and approval by the MDEQ:

- (i) If Defendant has corrected the lapse or violation, a written demonstration of how and when Defendant corrected the lapse or violation.
- (ii) If Defendant has not yet corrected the lapse or violation, a work plan and implementation schedule for addressing the lapse or violation.
- (iii) If Defendant believes it will not be able to correct the lapse or violation without modifying the MDEQ-approved IRDC, an action plan and implementation schedule, which shall be subject to the review and approval of the MDEQ, outlining the response activities Defendant will take to comply with Part 201 to assure that the Upland Portion of the Facility does not pose a threat to public health, safety, or welfare, or the environment.
- (iv) The work plan or action plan and implementation schedule identified in 6.12(c)(ii) or (iii) shall provide for the development of any response activity work plans and associated implementation schedules that are necessary to assure protection of public health, safety, and welfare, and the environment, including work plans for additional interim response activities and remedial investigation to provide additional information to support the selection and approval of an alternate IRDC, and an approvable alternate IRDC that meets the performance objectives specified in Paragraph 6.1(c) and that complies with Part 201. Defendant shall develop those response activity work plans pursuant to the requirements specified in this Judgment and shall submit those plans in accordance with the schedule established in an MDEQ-approved action plan. The MDEQ will review and approve any action plans or work plans submitted pursuant to this Section in accordance with the procedures set forth in Section

- XIII (Submissions and Approvals). Upon receipt of the MDEQ's approval,

 Defendant shall perform the response activities in accordance with the MDEQapproved action plan or work plan.
- (d) If Defendant does not comply with all of the requirements of Paragraph 6.12(c), or does not comply with the provisions of Section XIII (Submissions and Approvals), stipulated penalties as specified in Paragraph 15.1 of this Judgment shall begin to accrue the day the lapse or violation under Paragraph 6.12(a) or (b) occurred and continue to accrue until the lapse or violation is corrected to the satisfaction of the MDEQ.
- (e) The provisions in Paragraphs 6.12(a) and (b) are not subject to the dispute resolution procedures set forth in Section XVI (Dispute Resolution).
- 6.13 MDEQ's Performance of Response Activities. If Defendant ceases to perform the response activities required by this Judgment, is not performing response activities in accordance with this Judgment, or is performing response activities in a manner that may cause an endangerment to human health or the environment, the MDEQ may, at its option and upon providing thirty (30) days prior written notice to Defendant, take over the performance of those response activities. The MDEQ, however, is not required to provide thirty (30) days written notice prior to performing response activities required to oversee, enforce, monitor, or document compliance with this Judgment or that the MDEQ determines are necessary pursuant to Section IX (Emergency Response). If the MDEQ finds it necessary to take over the performance of response activities that Defendant is obligated to perform under this Judgment, Defendant shall reimburse the State its costs to perform those response activities plus accrued interest. Interest shall begin to accrue on the State's costs at the rate specified in Section 20126a(3) of the NREPA on the day the State begins to incur costs for those response activities. Costs incurred by the

State to perform response activities pursuant to this Paragraph shall be considered to be "Future Response Activity Costs" and Defendant shall provide reimbursement of these costs to the State in accordance with Paragraphs 14.2 and 14.4 (Reimbursement of Costs).

VII. ACCESS

- 7.1 Upon the Effective Date of this Judgment, Defendant shall allow the MDEQ and its authorized employees, agents, representatives, contractors, and consultants to enter the Upland Portion of the Facility and any associated properties, including the SRA, at all reasonable times to the extent access to the Upland Portion of the Facility and associated properties, including the SRA, is owned, controlled by, or available to Defendant. Upon presentation of proper credentials and upon making a reasonable effort to contact the person in charge of the Upland Portion of the Facility or SRA, the MDEQ, its authorized employees, agents, representatives, contractors, and consultants shall be allowed to enter the Upland Portion of the Facility and associated properties, including the SRA for the purpose of conducting any activity that is required under this Judgment or to otherwise fulfill any responsibility under federal or State laws with respect to the Upland Portion of the Facility and SRA including, but not limited to, the following:
 - (a) Monitoring response activities or any other activities taking place pursuant to this Judgment at the Upland Portion of the Facility and SRA;
 - (b) Verifying any data or information submitted to the MDEQ;
 - (c) Conducting investigations relating to contamination at or near the Upland Portion of the Facility and SRA;
 - (d) Obtaining samples;

- (e) Assessing the need for or planning or conducting response activities at or near the Upland Portion of the Facility and SRA;
- (f) Assessing compliance with requirements for the performance of monitoring, operation and maintenance, or other measures necessary to assure the effectiveness and integrity of a response activity;
- (g) Inspecting and copying non-privileged records, operating logs, contracts, or other documents;
- (h) Communicating with Defendant's Project Coordinator or other personnel, representatives, or consultants for the purpose of assessing compliance with this Judgment;
- (i) Determining whether the Upland Portion of the Facility or other property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or pursuant to this Judgment; and
- (j) Assuring the protection of public health, safety, and welfare, and the environment.
- 7.2 To the extent that the Upland Portion of the Facility, or any other property where the response activities are to be performed by Defendant under this Judgment, is owned or controlled by persons other than Defendant, Defendant shall use its best efforts to secure from such persons access for the Parties and their authorized employees, agents, representatives, contractors, and consultants. Defendant shall provide the MDEQ with a copy of each access agreement secured. For purposes of this Paragraph, "best efforts" includes, but is not limited to, providing reasonable consideration acceptable to the owner or taking judicial action to secure such access. If judicial action is required to obtain access, Defendant shall provide

documentation to the MDEQ that such judicial action has been filed in a court of appropriate jurisdiction no later than ten (10) days after the judicial action has been filed. If Defendant has not been able to secure access within sixty (60) days after filing judicial action, Defendant shall promptly notify the MDEQ of the status of the Defendant's efforts to obtain access and provide an assessment of how any delay in obtaining access may affect the performance of response activities required under this Judgment. Any delay in obtaining access shall not be an excuse for delay in the performance of response activities unless the MDEQ determines that the delay was caused by a *Force Majeure* event pursuant to Section X (*Force Majeure*). Defendant's failure to secure access or petition the court within one (1) year of having reason to believe that access to another person's property is necessary to comply with Section 20114 of the NREPA, shall be subject to stipulated penalties pursuant to Paragraph 15.2 of Section XV (Stipulated Penalties).

- 7.3 Any lease, purchase, contract or other agreement entered into by Defendant, which transfers to another person a right of control over the Upland Portion of the Facility, the SRA, or a portion of the Upland Portion of the Facility or SRA, shall contain a provision preserving for the MDEQ or any other person undertaking the response activities and its authorized representatives, the access provided under this Section VII (Access) and Section XI (Record Retention/Access to Information).
- 7.4 Any person granted access to the Upland Portion of the Facility or SRA pursuant to this Judgment shall comply with all applicable health and safety laws and regulations.

VIII. SAMPLING AND ANALYSIS

- 8.1 All sampling and analysis conducted pursuant to this Judgment shall be in accordance with the QAPP specified in Paragraph 6.3 and MDEQ-approved work plans, as appropriate.
- 8.2 Defendant, or its consultants or subcontractors, shall provide the MDEQ ten (10) days notice prior to any sampling activity to be conducted pursuant to this Judgment to allow the MDEQ Project Coordinator, or his or her authorized representative, the opportunity to take split or duplicate samples and to observe the sampling procedures. In circumstances where ten (10)-days notice is not possible, Defendant, or its consultants or subcontractors, shall provide notice of the planned sampling activity as soon as possible to the MDEQ Project Coordinator and explain why earlier notification was not possible. If the MDEQ Project Coordinator concurs with the explanation provided, Defendant may forego the ten (10)-day notification period for that particular sampling event.
- 8.3 Defendant shall provide the MDEQ with the results of all environmental sampling and other analytical data generated in the performance or monitoring of any requirement under this Judgment, Part 31 and Part 201 of the NREPA, or other relevant authorities. Said results shall be included in the Progress Reports set forth in Paragraph 6.11 of this Judgment.
- 8.4 For the purpose of quality assurance monitoring, Defendant shall assure that the MDEQ and its authorized representatives are allowed access to any laboratory that is used by Defendant in implementing this Judgment.

IX. EMERGENCY RESPONSE

- 9.1 If, during the performance of response activities under this Judgment, an act or the occurrence of an event poses or threatens to pose an imminent and substantial endangerment to public health, safety, or welfare or the environment from conditions that result from the releases and threats of releases at the Upland Portion of the Facility or SRA that are the subject of this Judgment, Defendant shall immediately undertake all appropriate actions to prevent or abate the endangerment. In addition, Defendant shall immediately notify the MDEQ Project Coordinator of the endangerment. In the event the MDEQ Project Coordinator is unavailable, Defendant shall immediately notify the Pollution Emergency Alerting System ("PEAS," 1-800-292-4706).
- 9.2 Within ten (10) days of notifying the MDEQ of an endangerment under Paragraph 9.1 of this Judgment, Defendant shall submit to the MDEQ a written report describing the act or event that occurred which resulted in the endangerment, the measures taken or to be taken to mitigate the endangerment and prevent recurrence of the action or condition that caused the endangerment. Regardless of whether Defendant notifies the MDEQ under this Section, if an action or condition at the Upland Portion of the Facility or SRA poses an imminent and substantial endangerment to public health, safety, or welfare, or the environment, the MDEQ may:
 - (a) Require Defendant to stop response activities at the Upland Portion of the Facility or SRA for such period of time as may be needed to prevent or abate the endangerment;
 - (b) Require Defendant to undertake any actions that the MDEQ determines are necessary to prevent or abate the endangerment; or

- (c) Undertake any actions that the MDEQ determines are necessary to prevent or abate the endangerment.
- 9.3 This Section is not subject to the dispute resolution procedures set forth in Section XVI (Dispute Resolution).

X. FORCE MAJEURE

- 10.1 Defendant shall perform the requirements of this Judgment within the time limits established herein, unless performance is prevented or delayed by events that constitute a "Force Majeure." Any delay in the performance attributable to a Force Majeure shall not be deemed a violation of this Judgment in accordance with this section.
- or events arising from a cause or causes beyond the control of and without the fault of Defendant, of any person controlled by Defendant, or of Defendant's contractors that delays or prevents the performance of any obligation under this Judgment despite Defendant's "best efforts to fulfill the obligation." The requirement that Defendant exercise "best efforts to fulfill the obligation" includes Defendant using best efforts to anticipate any potential *Force Majeure* event and to address the effects of any potential *Force Majeure* event during and after the occurrence of the event, such that Defendant minimizes any delays in the performance of any obligation under this Judgment to the greatest extent possible. *Force Majeure* includes an occurrence or nonoccurrence arising from causes beyond the control of and without the fault of Defendant, such as an act of God, untimely review of permit applications or submissions by the MDEQ or other applicable authority, and acts or omissions of third parties that could not have been avoided or overcome by the diligence of Defendant and that delay the performance of an obligation under

this Judgment. Force Majeure does not include, among other things, unanticipated or increased costs, changed financial circumstances, or failure to obtain a permit or license as a result of actions or omissions of Defendant.

- 10.3 Defendant shall notify the MDEQ by telephone within seventy-two (72) hours of discovering any event that causes a delay in its compliance with any provision of this Judgment. Verbal notice shall be followed by written notice within ten (10) calendar days and shall describe, in detail, the anticipated length of delay for each specific obligation that will be impacted by the delay, the cause or causes of delay, the measures taken by Defendant to prevent or minimize the delay, and the timetable by which those measures shall be implemented. Defendant shall use its best efforts to avoid or minimize any such delay.
- 10.4 Failure of Defendant to comply with the notice requirements of Paragraph 10.3, above, shall render this Section X void and of no force and effect as to the particular incident involved. The MDEQ may, at its sole discretion and in appropriate circumstances, waive the notice requirements of Paragraph 10.3.
- Defendant, this may be so stipulated and the parties to this Judgment may agree upon an appropriate modification of this Judgment. If the parties to this Judgment are unable to reach such agreement, the dispute shall be resolved in accordance with Section XVI (Dispute Resolution), of this Judgment. The burden of proving that any delay was beyond the control of Defendant, and that all the requirements of this section have been met by Defendant, is on Defendant.

10.6 An extension of one compliance date based upon a particular incident does not necessarily mean that Defendant qualifies for an extension of a subsequent compliance date without providing proof regarding each incremental step or other requirement for which an extension is sought.

XI. RECORD RETENTION/ACCESS TO INFORMATION

Defendant and its representatives, consultants and contractors shall preserve and 11.1 retain, during the pendency of this Judgment and for a period of ten (10) years after completion of operation and maintenance and long-term monitoring at the Upland Portion of the Facility, all records, sampling and test results, charts, and other documents relating to the release or threatened release of hazardous substances and the storage, generation, disposal, treatment, or handling of hazardous substances at the Upland Portion of the Facility and SRA, and any records that are maintained or generated pursuant to any requirement of this Judgment. In addition, if the MDEQ-approved IRDC relies on the cleanup criteria established under Section 20120a(1)(f) through (j) or 20120a(2) and further defined in the Part 201 Rules, and the IRDC provides for land or resource use restrictions, Defendant shall retain any records pertaining to these land or resource use restrictions in perpetuity or until the MDEQ determines that land and resource use restrictions are no longer needed. After the ten (10)-year period of document retention, following completion of operation and maintenance and long-term monitoring at the Upland Portion of the Facility, Defendant may seek the MDEQ's written permission to destroy such documents that are not required to be held in perpetuity. In the alternative, Defendant may make a written commitment, with the MDEQ's approval, to continue to preserve and retain the documents for a specified period of time, or Defendant may offer to relinquish custody of all documents to the MDEQ. In any event, Defendant shall obtain the MDEQ's written permission

prior to the destruction of any documents. Defendant's request shall be accompanied by a copy of this Judgment and sent to the address listed in Section XII (Project Coordinators and Communications/Notices) or to such other address as may subsequently be designated in writing by the MDEQ.

- documents and information within its possession, or within the possession or control of its employees, contractors, agents or representatives, relating to the performance of response activities or implementation of other requirements of this Judgment, including, but not limited to, records regarding the collection and analysis of samples, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing forms, or other correspondence, documents, or information related to response activities. Upon request, Defendant also shall make available to the MDEQ, upon reasonable notice, Defendant's employees, contractors, agents or representatives with knowledge of relevant facts concerning the performance of response activities.
- protection as provided in Sections 20117(10) and (11) of the NREPA. If no such claim accompanies the information when it is submitted to the MDEQ, the information may be made available to the public by the MDEQ without further notice to Defendant. Information described in Section 20117(11)(a) through (h) of the NREPA shall not be claimed as confidential or privileged by Defendant. Information or data generated under this Judgment shall not be subject to Part 148 of the NREPA, MCL 324.14801 et seq.

XII. PROJECT COORDINATORS AND COMMUNICATIONS/NOTICES

12.1 Each party shall designate one or more Project Coordinators. Whenever notices are required to be given or Progress Reports, information on the collection and analysis of samples, sampling data, work plan submittals, approvals, or disapprovals, or other technical submissions are required to be forwarded by one party to the other party under this Judgment, or whenever other communications between the parties are needed, such communications shall be directed to the Project Coordinators at the addresses listed below. If any party changes its designated Project Coordinator, the name, address, and telephone number of the successor shall be provided to the other party, in writing, as soon as practicable.

(a) As to MDEQ:

(i) For Submissions and Approvals pursuant to Section XIII
(Submissions and Approvals) and other matters pertaining to this Judgment:

Beth Vens, Project Coordinator Remediation and Redevelopment Division Southeast Michigan District Michigan Department of Environmental Quality 27700 Donald Court Warren, Michigan, 48092 Phone: (586) 753-3825

Fax: (586) 753-3859

This Project Coordinator has primary responsibility for overseeing the performance of response activities at the Upland Portion of the Facility and the requirements of this Judgment for the MDEQ. A copy of all Submissions and the IRDC submitted to the Project Coordinator shall also be provided to: Oladipo Oyinsan, District Supervisor, Southeast Michigan District at the same address provided above.

(ii) For all matters specified in this Judgment that are to be directed to the MDEQ's RRD Chief:

Chief, Remediation and Redevelopment Division Michigan Department of Environmental Quality P.O. Box 30426 Lansing, MI 48909-7926 Telephone: 517-335-1104

Fax: 517-373-2637

<u>Via courier</u> Constitution Hall, 4th Floor, South Tower, 525 West Allegan Street Lansing, MI 48933

A copy of all correspondence that is sent to the MDEQ's RRD Chief shall also be provided to the MDEQ Project Coordinator designated in Paragraph 12.1(a)(i).

(iii) For providing a true copy of a recorded NAER, a restrictive covenant, and documentation that an institutional control has been enacted pursuant to Section VI (Performance of Response Activities); for Record Retention pursuant to Section XI (Record Retention/Access to Information); and for questions concerning financial matters pursuant to Section VI (Performance of Response Activities), including financial assurance mechanisms associated with the IRDC, Section XIV (Reimbursement of Costs), and Section XV (Stipulated Penalties):

Chief, Compliance and Enforcement Section Remediation and Redevelopment Division Michigan Department of Environmental Quality P.O. Box 30426 Lansing, MI 48909-7926 Telephone: (517)373-7818 Fax: 517-373-2637

<u>Via courier</u> Constitution Hall, 4th Floor, South Tower, 525 West Allegan Street Lansing, MI 48933

A copy of all correspondence that is sent to the Chief of the Compliance and Enforcement Section, RRD, shall also be provided to the MDEQ Project Coordinator designated in Paragraph 12.1a(i).

(iv) For all payments pursuant to Section XIV (Reimbursement of

Costs) and Section XV (Stipulated Penalties):

Revenue Control Unit
Financial and Business Services Division
Michigan Department of Environmental Quality
P.O. Box 30657
Lansing, MI 48909-8157
Via courier:
Constitution Hall 5th Floor South Tower

Constitution Hall, 5th Floor, South Tower 525 West Allegan Street Lansing, MI 48933

To ensure proper credit, all payments made pursuant to this Judgment shall reference the BASF Riverview Facility, the Court Case No., and the MDEQ, RRD Account Number RRD2211.

A copy of all correspondence that is sent to the Revenue Control Unit shall also be provided to the MDEQ Project Coordinator designated in Paragraph 12.1(a)(i).

(b) As to the Assistant Attorney General in Charge:

Department of Attorney General, Environment, Natural Resources, and Agriculture Division, P.O. Box 30755, Lansing, Michigan 48909.

(c) As to Defendant:

Brian Diepeveen
BASF Corporation
100 Campus Drive
Florham Park, NJ 07932
Telephone: (215) 672-4119
Fax: (215) 672-1652

12.2 Defendant's Project Coordinator shall have primary responsibility for overseeing the performance of the response activities and other requirements specified in this Judgment.

12.3 The MDEQ may designate other authorized representatives, employees, contractors, and consultants to observe and monitor the progress of any activity undertaken pursuant to this Judgment.

XIII. SUBMISSIONS AND APPROVALS

- and regulations and the requirements of this Judgment shall be delivered to the MDEQ in accordance with the schedules set forth in this Judgment. All Submissions delivered to the MDEQ pursuant to this Judgment shall include a reference to the BASF Riverview Facility and the Court Case Number. The Submissions required to be submitted to the MDEQ under Paragraphs 6.4, 6.5 (except as specified in the SOW), 6.9, 6.11, and 7.2 as well as Section XVI (Dispute Resolution) of this Judgment are not required to be submitted to the MDEQ for approval. Any Submission delivered to the MDEQ for approval shall be marked "Draft" and shall include, in a prominent location in the document, the following disclaimer: "Disclaimer: This document is a DRAFT document that has not received final approval from the Michigan Department of Environmental Quality (MDEQ). This document was prepared pursuant to a court Consent Judgment. The opinions, findings, and conclusions expressed are those of the authors and not those of the MDEQ."
- 13.2 With the exception of the IRDC, after receipt of any Submission relating to response activities that is required to be submitted to the MDEQ for approval pursuant to this Judgment, the MDEQ's RRD District Supervisor will, in writing:
 - (a) Approve the Submission;
 - (b) Approve the Submission with modifications;

- (c) Reject the Submission as insufficient if the Submission lacks any information necessary or required by the MDEQ to make a decision regarding approval of the Submission; or
- (d) Disapprove the Submission and notify Defendant of the deficiencies in the Submission.

Upon receipt of a notice of approval or approval with modifications from the MDEQ,
Defendant shall proceed to take the actions and perform the response activities required by the
Submission, as approved or as modified, and shall submit a new cover page and any modified
pages of the Submission marked "Final."

pursuant to Paragraph 13.2(c) or disapproved pursuant to Paragraph 13.2(d) of this Judgment, Defendant shall correct the deficiencies and resubmit the Submission for MDEQ review and approval within thirty (30) days, unless the MDEQ's notice of rejection or disapproval specifies a longer time period for resubmission. Unless otherwise stated in the MDEQ's notice of rejection or disapproval, Defendant shall proceed to take the actions and perform the response activities not directly related to the deficient portion of the Submission. Any stipulated penalties applicable to the delivery of the Submission shall accrue during the thirty (30)-day period or other time period for Defendant to resubmit the Submission, but shall not be payable unless the resubmission is also rejected or disapproved. The MDEQ will review any resubmitted Submission in accordance with the procedure set forth in Paragraph 13.2 of this Judgment. If a resubmitted Submission is disapproved, the MDEQ will so advise Defendant and, as set forth above, stipulated penalties shall accrue from the date of MDEQ disapproval of the original Submission and continue to accrue until Defendant delivers an approvable Submission.

- 13.4 Within six (6) months of receipt of the IRDC, the MDEQ's RRD Chief will make a decision regarding the IRDC and will, in writing: (a) approve the IRDC; (b) reject the IRDC as insufficient if the IRDC lacks any information necessary or required by the MDEQ to make a decision regarding IRDC approval; or (c) deny approval of the IRDC. If the MDEQ denies approval of the IRDC, the MDEQ will provide Defendant with a complete and specific statement of the conditions or requirements necessary to obtain approval to which the MDEQ may not add additional items after it has been issued. The time period for a decision regarding the submitted IRDC may be extended by the mutual consent of the Parties. Upon receipt of a notice of approval from the MDEQ, Defendant shall proceed to take the actions and perform the response activities required by the MDEQ-approved IRDC and shall submit a new cover page marked "Final."
- disapproval pursuant to Paragraph 13.4(b) or (c), Defendant shall revise and resubmit the IRDC, to the MDEQ for review and approval. The time frame for resubmission may be extended by the MDEQ. The MDEQ will review the resubmitted IRDC in accordance with the procedure stated in Paragraph 13.4. Any stipulated penalties applicable to the delivery of the IRDC shall accrue during the thirty (30)-day period or other time period for Defendant to submit another IRDC, but shall not be payable unless the resubmitted IRDC is also rejected or approval is denied. If the MDEQ rejects or denies a resubmitted IRDC, the MDEQ will so advise Defendant and, as set forth above, stipulated penalties shall accrue from the date of MDEQ disapproval of the original IRDC and continue to accrue until Defendant delivers an approvable IRDC.

- 13.6 If the initial submittal of any Submission, including the IRDC, contains significant deficiencies such that the Submission is not in the judgment of the MDEQ a good faith effort by Defendant to deliver an acceptable Submission that complies with Part 201 and this Judgment, the MDEQ will notify Defendant of such and will deem Defendant to be in violation of this Judgment. Stipulated penalties, as set forth in Section XV (Stipulated Penalties), shall begin to accrue on the day after the Submission was due until an acceptable Submission is submitted to the MDEQ. Any other delay in the delivery of a Submission, noncompliance with a Submission or attachment to this Judgment, or failure to cure a deficiency of a Submission in accordance with Paragraphs 13.3 or 13.5 shall subject Defendant to penalties pursuant to Section XV (Stipulated Penalties) or other remedies available to the State pursuant to this Judgment.
- 13.7 Upon approval by the MDEQ, any Submission and attachments to Submissions required by this Judgment are incorporated into this Judgment and are enforceable pursuant to the terms of this Judgment. If there is a conflict between the requirements of this Judgment and any Submission or an attachment to a Submission, the requirements of this Judgment shall prevail.
- 13.8 A finding of approval or approval with modifications of a Submission shall not be construed to mean that the MDEQ concurs with any of the conclusions, methods, or statements in the Submission or warrants that the Submission comports with law.
- 13.9 No informal advice, guidance, suggestions, or comments by the MDEQ regarding any Submission provided by Defendant shall be construed as relieving Defendant of its obligation to obtain such formal approval as may be required by this Judgment.

XIV. REIMBURSEMENT OF COSTS

- 14.1 Within thirty (30) days of the Effective Date of this Judgment, Defendant shall pay the MDEQ \$433,886.00 to resolve all State claims for Past Response Activity Costs relating to matters covered in this Judgment. Payment shall be made pursuant to the provisions of Paragraph 14.4.
- 14.2 Defendant shall reimburse the State for all Future Response Activity Costs incurred by the State. As soon as possible after each anniversary of the Effective Date of this Judgment, the MDEQ will provide Defendant with a written demand for payment of Future Response Activity Costs that have been lawfully incurred by the State. Any such demand will set forth with reasonable specificity the nature of the costs incurred. Except as provided by Section XVI (Dispute Resolution), Defendant shall reimburse the MDEQ for such costs within thirty (30) days of receipt of a written demand from the MDEQ.
- MDEQ demands made hereunder, including time sheets, travel vouchers, contracts, invoices, and payment vouchers as may be available to the MDEQ. MDEQ's provision of these documents to Defendant may result in the MDEQ incurring additional Future Response Activity Costs, which will be included in the next annual demand for payment of Future Response Activity Costs.
- 14.4 All payments made pursuant to Paragraphs 14.1 and 14.2 of this Judgment shall be by certified check, made payable to the "State of Michigan Environmental Response Fund," and shall be sent by first-class mail to the address listed in Paragraph 12.1(a)(iv) of Section XII (Project Coordinators and Communications/Notices). The BASF Riverview Facility, the Court Case Number, and the RRD Account Number RRD2211 shall be identified on each check. A

copy of the transmittal letter and the check shall be provided simultaneously to the Chief,

Compliance and Enforcement Section, RRD listed in Paragraph 12.1(a)(iii) and the Assistant

Attorney General in Charge, as set forth in Paragraph 12.1(b). Costs recovered pursuant to this

Section shall be deposited in the Environmental Response Fund in accordance with the

provisions of Section 20108(3) of the NREPA; and

14.5 If Defendant fails to make full payment to the MDEQ for Past Response Activity Costs or Future Response Activity Costs, as specified in Paragraphs 14.1 and 14.2, interest shall begin to accrue on the unpaid balance at the rate specified in Section 20126a(3) of the NREPA on the day after payment was due until the date upon which Defendant make full payment of those costs and the accrued interest to the MDEQ. Defendant shall have the burden of establishing, in any challenge by Defendant to a MDEQ demand for reimbursement of costs, that the MDEQ did not lawfully incur those costs in accordance with Section 20126a(1)(a) of the NREPA.

XV. STIPULATED PENALTIES

15.1 (a) Except as provided by Sections XVI (Dispute Resolution) X (Force Majeure), and Paragraph 15.1(b), within thirty (30) days of a demand for stipulated penalties from the State, Defendant shall pay the State stipulated penalties in the following amounts for each day for every failure or refusal to comply or conform with Paragraphs 6.5, 6.6, 6.7, 6.8, 6.10 and 6.12 of SectionVI (Performance of Response Activities):

Period of Delay or Noncompliance	Penalty Per Violation Per Day
1st through 15th day	\$ 500.00
16th through 30th day	\$ 1,000.00
Beyond 30 days	\$ 2,500.00

Defendant shall pay the stipulated penalties in the following amounts for Defendant's failure to maintain the minimum one (1)-foot inward hydraulic gradient across the Containment Area barrier walls as required under Section IV of the SOW, Attachment C. However, stipulated penalties shall only begin to accrue if the cumulative total time for one or more Non-Compliance Events, as defined in Section IV.B.2 of the SOW, exceeds one hundred and twenty (120)-hours in any running one hundred and eighty (180)-day period. As set forth in Section IV.B of the SOW, a violation for failure to maintain the minimum one (1)-foot inward hydraulic gradient across the Containment Area barrier walls shall be deemed to have occurred if there is a Non-Compliance Event at any of the monitoring points. For the purposes of calculating stipulated penalties, if two or more monitoring points have a Non-Compliance Event during the same period, it shall be considered one violation per day of non-compliance. For purposes of determining the cumulative total time of non-compliance, if two or more monitoring points have a Non-Compliance Event during the same period it shall be considered as a single Non-Compliance Event, the duration of which shall be based upon the date and time the first monitoring point was confirmed to be in a Non-Compliance Event to the date and time the last monitoring point has regained compliance. Stipulated penalties shall not accrue for failures to maintain the required inward hydraulic gradient that occur prior to completion of the IRA startup period as defined in Paragraph 6.5 of this Judgment. If the Contingency Response Activities set forth in Paragraph IV.C. of the SOW are required, stipulated penalties for failure to maintain the required inward hydraulic gradient shall not accrue provided: (1) Defendant has implemented all appropriate corrective response activities pursuant to Section IV.B.2. of the SOW in

effort to regain the minimum one (1) foot inward hydraulic head differential and (2)

Defendant has submitted an approvable work plan per the requirements of Section IV.C.

of the SOW and, upon DEQ approval, is implementing the work plan in accordance with the approved scheduled.

Period of Noncompliance	Penalty per Day	
1-30 days	\$ 5,000.00	
Beyond 30 days	\$ 10,000.00	

- 15.2 Except as provided in Paragraph 15.1, Defendant shall, within thirty (30) days of a demand for stipulated penalties from the State, pay the State stipulated penalties of five hundred dollars (\$500.00) per day for each and every failure or refusal to comply with any other term or condition of this Judgment.
- 15.3 All penalties shall begin to accrue on the day after performance of an activity was due or the day a violation occurs, and shall continue to accrue through the final day of completion of performance of the activity or correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Judgment.
- owed to the State shall be paid no later than thirty (30) days after Defendant's receipt of a written demand from the State. Payment shall be made in the manner provided in Paragraph 14.4 of this Judgment. Interest shall accrue on the unpaid balance at the end of the thirty (30)-day period at the rate provided for in Section 20126a(3) of NREPA. Failure to pay the stipulated penalties within thirty (30) days after receipt of a written demand constitutes a further violation of the terms and conditions of this Judgment.

- 15.5 The payment of stipulated penalties shall not alter in any way Defendant's obligation to complete the performance of response activities required by this Judgment.
- proceedings to collect the penalties, as well as interest. However, the assessment of stipulated penalties is not the State's exclusive remedy if Defendant violates this Judgment. The State also reserves the right to pursue any other remedies to which it is entitled under this Judgment or any applicable law for any failure or refusal of Defendant to comply with the requirements of this Judgment, including, but not limited to, seeking civil penalties, injunctive relief, the specific performance of response activities, reimbursement of costs, and sanctions for contempt of court, provided that any stipulated penalties that are assessed and paid by Defendant for a violation will be credited against any civil penalties that may be imposed for that same violation.
- 15.7 Notwithstanding any other provision of this Section, the State may, in its unreviewable discretion, waive any portion of stipulated penalties that has accrued pursuant to this Judgment.

XVI. DISPUTE RESOLUTION

16.1 Unless otherwise expressly provided for in this Judgment, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under this Judgment except for Paragraph 6.13(a) and (b) (Voidance and Nullification of the MDEQ's Approval of the IRDC) and Section IX (Emergency Response) which are not disputable. The procedures set forth in this Section shall not apply to actions by the State to enforce obligations of Defendant that have not been disputed in accordance with this Section. Engagement of

dispute resolution under this Section shall not be cause for Defendant to delay the performance of any response activity required under this Judgment.

- 16.2 The State shall maintain an administrative record of any disputes initiated pursuant to this Section. The administrative record shall include the information Defendant provides to the State under Paragraphs 16.3 and 16.4 and any documents the MDEQ and the State rely on to make the decisions set forth in Paragraphs 16.3 and 16.4. Defendant shall have the right to request that the administrative record be supplemented with other material involving matters in dispute pursuant to MCL 324.20137(5).
- 16.3 Except for undisputable matters identified in Paragraph 16.1 and disputes related to the IRDC, any dispute that arises under this Judgment shall in the first instance be the subject of informal negotiations between the Project Coordinators representing the MDEQ and Defendant. A dispute shall be considered to have arisen on the date that a Party to this Judgment receives a written Notice of Dispute from the other Party. This Notice of Dispute shall state the issues in dispute; the relevant facts upon which the dispute is based; any factual data, analysis, or opinion supporting the Party's position; and supporting documentation upon which the Party bases its position. The period of informal negotiations shall not exceed ten (10) days from the date a Party receives a Notice of Dispute, unless the time period for negotiations is modified by written agreement between the Parties. If the Parties do not reach an agreement within ten (10) days, the RRD District Supervisor will thereafter provide the MDEQ's Statement of Decision, in writing, to Defendant. In the absence of initiation of formal dispute resolution by Defendant under Paragraph 16.4, the MDEQ's position as set forth in the MDEQ's Interim Statement of Decision shall be binding on the Parties.

- If Defendant and the MDEQ cannot informally resolve a dispute under Paragraph 16.3 or if the dispute involves the IRDC, Defendant may initiate formal dispute resolution by submitting a written Request for Review to the MDEQ's RRD Chief, with a copy to the MDEQ Project Coordinator, requesting a review of the disputed issues. This Request for Review must be submitted within ten (10) days of Defendant's receipt of the Interim Statement of Decision issued by the MDEQ pursuant to Paragraph 16.3. If the dispute is in regards to the IRDC, either Party may initiate formal dispute resolution by filing a Request for Review. The Request for Review shall state the issues in dispute; the relevant facts upon which the dispute is based; factual data, analysis, or opinion supporting the Party's position; and supporting documentation upon which the Party bases its position. When the MDEQ issues a Request for Review, Defendant will have twenty (20) days to submit a written rebuttal to the MDEQ's RRD Chief, with a copy to the MDEQ Project Coordinator. Within twenty (20) days of the MDEQ's RRD Chief's receipt of Defendant's Request for Review or Defendant's rebuttal, the MDEQ's RRD Chief will provide the MDEQ's Statement of Decision, in writing, to Defendant, which will include a statement of his/her understanding of the issues in dispute; the relevant facts upon which the dispute is based; factual data, analysis, or opinion supporting her/his position; and supporting documentation he/she relied upon in making the decision. The time period for the MDEQ's RRD Chief's review of the Request for Review may be extended by written agreement between the Parties. The MDEQ's Statement of Decision shall be binding on the Parties.
- 16.5 The MDEQ Statement of Decision or the State's Statement of Decision pursuant to Paragraph 16.4 shall control unless, within twenty (20) days after Defendant's receipt of one of those Decisions, Defendant files with this Court a motion for resolution of the dispute. The motion shall set forth the matter in dispute, the efforts made by the Parties to resolve it, the relief

requested, and the schedule, if any, within which the dispute must be resolved to insure orderly implementation of this Judgment. Within thirty (30) days of Defendant's filing of a motion asking the Court to resolve a dispute, Plaintiff will file with the Court the administrative record that is maintained pursuant to Paragraph 16.2.

- administrative record. In proceedings on any dispute relating to the selection, extent, or adequacy of any aspect of the response activities that are the subject of this Judgment, Defendant shall have the burden of demonstrating on the administrative record that the position of the MDEQ is arbitrary and capricious or otherwise not in accordance with law. In proceedings on any dispute, Defendant shall bear the burden of persuasion on factual issues under the applicable standards of review. Nothing herein shall prevent Plaintiff from arguing that the Court should apply the arbitrary and capricious standard of review to any dispute under this Judgment.
- 16.7 Notwithstanding the invocation of a dispute resolution proceeding, stipulated penalties shall accrue from the first day of Defendant's failure or refusal to comply with any term or condition of this Judgment, but payment shall be stayed pending resolution of the dispute. In the event, and to the extent, that Defendant does not prevail on the disputed matters, the MDEQ may demand payment of stipulated penalties and Defendant shall pay stipulated penalties as set forth in Paragraph 15.4 of Section XV (Stipulated Penalties). Defendant shall not be assessed stipulated penalties for disputes that are resolved in its favor.
- 16.8 Notwithstanding the provisions of this Section and in accordance with Section XIV (Reimbursement of Costs) and Section XV (Stipulated Penalties), Defendant shall pay to

the MDEQ that portion of a demand for reimbursement of costs or for payment of stipulated penalties that is not the subject of an on-going dispute resolution proceeding.

XVII. INDEMNIFICATION AND INSURANCE

- 17.1 The State of Michigan does not assume any liability by entering into this Judgment. This Judgment shall not be construed to be an indemnity by the State for the benefit of Defendant or any other person.
- 17.2 Defendant shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, agents, employees, contractors, and representatives for any claims or causes of action arising from, or on account of, acts or omissions of Defendant, its officers, employees, agents, or any persons acting on its behalf or under its control in carrying out activities pursuant to this Judgment.
- 17.3 Defendant shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, agents, employees, contractors, and representatives for any claims or causes of action for damages or reimbursement from the State arising from, or on account of, any contract, agreement, or arrangement between Defendant and any person for the performance of response activities at the Upland Portion of the Facility and SRA, including claims on account of construction delays.
- 17.4 The State will provide Defendant notice of any claim for which the State intends to seek indemnification pursuant to Paragraphs 17.2 and 17.3.
- 17.5 Neither the State of Michigan nor any of its departments, agencies, officials, agents, employees, contractors, or representatives shall be held out as a party to any contract

entered into by or on behalf of Defendant in carrying out activities pursuant to this Judgment.

Neither Defendant nor any contractor shall be considered an agent of the State.

- 17.6 Defendant waives all claims or causes of action against the State of Michigan and its departments, agencies, officials, agents, employees, contractors, and representatives for damages, reimbursement, or set-off of any payments made or to be made to the State, that arise from, or on account of, any contract, agreement, or arrangement between Defendant and any other person for the performance of response activities at the Upland Portion of the Facility and SRA, including claims on account of construction delays.
- 17.7 Prior to commencing any response activities pursuant to this Judgment, Defendant shall secure, and maintain for the duration of this Judgment, comprehensive general liability insurance with limits of one million dollars (\$1,000,000.00), combined single limit, naming the MDEQ, the Attorney General and the State of Michigan as additional insured parties to the extent their interests appear hereunder. If Defendant demonstrates by evidence satisfactory to the MDEQ that any contractor or subcontractor maintains insurance equivalent to that described above, then with respect to that contractor or subcontractor, Defendant shall provide only that portion, if any, of the insurance described above that is not maintained by the contractor or subcontractor. Regardless of the method used to insure, and prior to commencement of response activities pursuant to this Judgment, Defendant shall provide the MDEQ Project Coordinator and the Attorney General with certificates evidencing said insurance and the MDEQ's, the Attorney General's and the State of Michigan's status as additional insured parties to the extent their interests appear hereunder. In addition, for the duration of this Judgment, Defendant shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and

regulations regarding the provision of Workers' Disability Compensation Insurance for all persons performing response activities on behalf of Defendant in furtherance of this Judgment.

XVIII. COVENANTS NOT TO SUE BY STATE

- 18.1 In consideration of the actions that will be performed and the payments that will be made by Defendant under the terms of this Judgment, and except as specifically provided in this Section and Section XIX (Reservation of Rights by the State), the State of Michigan hereby covenants not to sue or to take further administrative action against Defendant for:
 - (a) Performance of response activities related to the releases at and from the Upland Portion of the Facility, provided that the performance objectives of Paragraph 6.1 are being met by Defendant;
 - (b) Liability for contaminated sediments located within the SRA except for those sediments that are contaminated as the result of releases that occur after the completion of the dredging activities, as defined in Paragraph 6.5(b), for which BASF is liable under Section 20126 of the NREPA. If BASF does not remove the contaminated sediments from the Boat Launch SRA, this Covenant Not to Sue will not apply to the Boat Launch SRA and this covenant shall apply only to the Property SRA. In any subsequent action concerning sediments within the SRA, the State shall have the burden of proving that any recontamination of the sediments within the SRA is from the Upland Portion of the Facility or was otherwise caused by BASF.
 - (c) Reimbursement of Past Response Activity Costs incurred and paid by the State as set forth in Paragraph 14.1 of this Judgment;
 - (d) Reimbursement of Future Response Activity Costs incurred by the State as set forth in Paragraph 14.2 of this Judgment and paid by Defendant; and

- (e) Liability for potential civil fines for past violations of Parts 31 and 201 that are attributable to the Upland Portion of the Facility or the SRA. For the purposes of this Judgment, past violations of Part 31 shall be defined as violations of Part 31 associated with the alleged venting of groundwater above Part 31 criteria from the Upland Facility to the Trenton Channel of the Detroit River that occurred prior to the issuance of the Certification of Construction of the IRDC or prior to June 1, 2011, whichever is earlier. For purposes of this Judgment past violations of Part 201 means any violations of Part 201 that occurred prior to the Effective Date of this Judgment.
- 18.2 The covenants not to sue shall take effect under this Judgment as follows:
- (a) With respect to Defendant's liability for its performance of the IRA, one year after issuance of the Certification of Construction of the IRA pursuant to Paragraph 23.1.
- (b) With respect to Defendant's liability for its performance of any response activities other than sediment removal and performance of the IRA, upon issuance of the Certification of Construction of the IRDC in accordance with Section XXIII.
- (c) With respect to Defendant's liability for contaminated sediments within the SRA, upon completion of the dredging activities, as defined in Paragraph 6.5(b), undertaken in accordance with this Judgment and the SOW.
- (d) With respect to Defendant's liability for Past Response Activity Costs and Future Response Activity Costs incurred by the State, the covenants not to sue shall take effect upon the MDEQ's receipt of payments for those costs.
- (e) With respect to liability for past violations of Parts 31 or 201, upon the Effective Date of this Judgment.

18.3 The covenants not to sue extend only to Defendant and do not extend to any other person.

XIX. RESERVATION OF RIGHTS BY THE STATE

- These covenants not to sue do not apply to, and the State reserves its rights on, the matters specified in Paragraph 18.1 until such time as these covenants become effective as set forth in Paragraph 18.2. The MDEQ and the Attorney General reserve the right to bring an action against Defendant under federal and state laws for any matters for which Defendant has not received a covenant not to sue as set forth in Section XVIII (Covenants Not to Sue by State). The State expressly reserves, and this Judgment is without prejudice to, all rights to take administrative action or to file a new action pursuant to any applicable authority against Defendant with respect to the following:
 - (a) The performance of response activities that are necessary to achieve and maintain the performance objectives specified in Paragraph 6.1 of this Order and any due care obligations of Defendant pursuant to Section 20107a;
 - (b) Liability for response activities required to address any area, place, or property or sediments not included in the definition of Upland Portion of the Facility or the Property SRA;
 - (c) Response activity costs, including, but not limited to Past Response

 Activity Costs and Future Response Activity Costs, that Defendant has not paid or for which Defendant has not received a covenant not to sue;

- (d) The past, present, or future treatment, handling, disposal, release, or threat of release of hazardous substances that occur outside of the Upland Portion of the Facility or SRA and that are not attributable to the Upland Portion of the Facility or SRA;
- (e) The past, present, or future treatment, handling, disposal, release, or threat of release of hazardous substances removed from the Upland Portion of the Facility or SRA;
- (f) Damages for injury to, destruction of, or loss of natural resources and the costs for any natural resource damage assessment;
 - (g) Criminal acts;
- (h) Any matters for which the State is owed indemnification under Section XVII (Indemnification and Insurance) of this Judgment; and
- (i) Violations of federal or state law for which Defendant has not received a covenant not to sue.
- 19.2 The State reserves the right to take action against Defendant if at any time it discovers that any material information provided by Defendant prior to or after entry of this Judgment was false or misleading.
- 19.3 The MDEQ and the Attorney General expressly reserve all rights and defenses pursuant to any available legal authority that they may have to enforce this Judgment.
- 19.4 In addition to, and not as a limitation of any other provision of this Judgment, the MDEQ retains all authority and reserves all rights to perform, or contract to have performed, any response activities that the MDEQ determines are necessary, subject to the notice provisions of Paragraph 6.13, if applicable.

- 19.5 In addition to, and not as a limitation of any provision of this Judgment, the MDEQ and the Attorney General retain all of its information gathering, inspection, and access authorities under Part 201 of the NREPA and any other applicable statute or regulation.
- 19.6 Failure by the MDEQ or the Attorney General to timely enforce any term, condition or requirement of this Judgment shall not:
 - (a) Provide or be construed to provide a defense for Defendant's noncompliance with any such term, condition or requirement of this Judgment; or
 - (b) Estop or limit the authority of MDEQ or the Attorney General to later enforce any such term, condition or requirement of the Judgment or to seek any other remedy provided by law.
- 19.7 This Judgment does not constitute a warranty or representation of any kind by the MDEQ that the response activities performed by Defendant in accordance with the MDEQ approved work plans and required by this Judgment will result in the achievement of the performance objectives stated in Paragraph 6.1 or the remedial criteria established by law, or that those response activities will assure protection of public health, safety, or welfare, or the environment.
- 19.8 Except as provided in Paragraph 18.1(a) and (b), nothing in this Judgment shall limit the power and authority of the MDEQ or the State of Michigan pursuant to Sections 20119 or 20137 of the NREPA to direct or order all appropriate action to protect the public health, safety, or welfare, or the environment; or to prevent, abate, or minimize a release or threatened release of hazardous substances, pollutants or contaminants on, at or from the Facility.

XX. DEFENDANT'S COVENANT NOT TO SUE AND RESERVATION OF RIGHTS

- 20.1 Except as provided in Section XVI (Dispute Resolution), Defendant hereby covenants not to sue or to take any civil, judicial, or administrative action against the State, its agencies, or its authorized representatives, for any claims or causes of action against the State for the Upland Portion of the Facility or SRA that arise from this Judgment, including, but not limited to, any direct or indirect claim for reimbursement from the Cleanup and Redevelopment Fund pursuant to Section 20119(5) of the NREPA or any other provision of law.
- administrative or judicial proceeding for injunctive relief, recovery of response activity costs, or other appropriate relief relating to the Facility, Defendant agrees not to assert and shall not maintain any defenses or claims that are based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, or claim-splitting or that are based upon a defense that contends any claims raised by the MDEQ or the Attorney General in such a proceeding were or should has been brought in this case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Section XVIII (Covenants Not to Sue by State). Defendant reserves all rights and defenses with respect to any action brought by the State pursuant to Section XIX (Reservation of Rights by the State).
- 20.3 Defendant reserves the right to invoke the provisions of Section 20129(1) of the NREPA.

XX. CONTRIBUTION

Pursuant to Section 20129(5) of the NREPA and Section 113(f)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9613(f)(2), and

to the extent provided in Section XVIII (Covenants Not to Sue by State), Defendant shall not be liable for claims for contribution for the matters set forth in Paragraph 18.1 of this Judgment to the extent allowable by law. The Parties agree that entry of this Judgment constitutes a judicially approved settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 USC 9613(f)(3)(B), pursuant to which Defendant has, as of the Effective Date, resolved its liability to the MDEQ for the matters set forth in Paragraph 18.1 of this Judgment. Entry of this Judgment does not discharge the liability of any other person that may be liable under Section 20126 of the NREPA, or the CERCLA, 42 USC 9607 and 9613. Pursuant to Section 20129(9) of the NREPA, any action by Defendant for contribution from any person not a party to this Judgment shall be subordinate to the rights of the State of Michigan if the State files an action pursuant to the NREPA or other applicable federal or state law.

XXII. MODIFICATION OF THE JUDGMENT

- 22.1 This Judgment may only be modified according to the terms of this Section. Any Submission required by this Judgment, excluding the IRA or IRDC, may be modified in writing by the MDEQ's Project Coordinator designated in Paragraph 12.1(a)(i) of this Judgment. The IRDC may only be modified in writing by the MDEQ's RRD Chief or his or her authorized representative.
- 22.2 Modification of any other provision of this Judgment shall, upon written agreement between Defendant's Project Coordinator, the MDEQ's RRD Chief, and the Michigan Department of Attorney General, be entered with the Court.

XXIII. CERTIFICATIONS

- 23.1 Within six (6) months after completion of construction of the IRA, including the sediment removal activities, as set forth in the SOW (Attachment C), but no later than the time frames set forth in Paragraph 6.5(b), Defendant shall submit to the MDEQ a Notification of Construction of the IRA (Notification) and a construction certification report as set forth in Section II.A.13. of the SOW. Upon receipt of the Notification, the MDEQ shall review the Notification, the draft construction certification report and any supporting documentation to determine if Defendant has satisfactorily completed construction of the IRA in accordance with this SOW, including any amendments thereof. If the MDEQ determines that Defendant has satisfactorily completed construction of the IRA, the MDEQ shall issue a written Certification of Construction of the IRA to Defendant.
 - 23.2 (a) Defendant may apply to the MDEQ for an "Certification of Construction of the IRDC" when Defendant has satisfactorily performed the following: all the response activities set forth in the MDEQ approved IRDC, including any Modifications; and a demonstration, which is determined to be satisfactory to the MDEQ, that the IRDC, as designed, constructed, and implemented pursuant to the MDEQ-approved IRDC, is functioning in a manner that assures the effectiveness and integrity of the IRDC and that is protective of public health, safety, and welfare, and the environment. Such demonstration shall be based upon the performance of operation and maintenance activities, long-term monitoring activities, and other response activities for a period of at least one year following the completion of construction of the IRDC.
 - (b) When Defendant has met the criteria stated in this Paragraph, Defendant may send a "Request for Certification of Construction of the IRDC and a draft

"Construction Report" to the MDEQ. The draft Construction Report shall summarize all response activities conducted to meet the requirements of Paragraph 23.2(a) and shall include or reference any supporting documentation.

and draft Construction Report, the MDEQ will review the Request and determine whether Defendant has met the criteria specified in Paragraph 23.2(a). Thereafter, the RRD Division Chief will approve or disapprove Defendant's Request. If the RRD Division Chief approves the Request and Defendant delivers the final Construction Report, the RRD Division Chief will issue a Certification of Construction of the IRDC. The MDEQ's issuance of this Certification does not relieve Defendant of its obligations to comply with the requirements of Part 201 of the NREPA and to achieve and maintain the performance objectives specified in Paragraph 6.1(c), including the Long-term Requirements of the IRDC. "Long-term Requirements of the IRDC" means the response activities required by Part 201 that are needed to assure the effectiveness and integrity of a IRDC, including response activities to ensure the maintenance and enforcement of any land and resource use restrictions, perform operation and maintenance and long-term monitoring, and maintain financial assurance and permanent markers.

XXIV. TERMINATION OF 1984 CONSENT DECREE

The parties agree to seek termination of the Consent Decree entered into on July 18, 1984 in United States v BASF Wyandotte, US District Court, Eastern District of Michigan, Case No. 80-73694 (1984 Consent Decree) and within thirty (30) days of the Effective Date of this Judgment, agree to file with the federal court a Stipulation and Order to Terminate the 1984 Consent Decree as set forth in Attachment F. If the 1984 Consent Decree is not terminated, the

parties stipulate and agree that this Judgment shall be controlling as to the obligations and agreements between the parties, including but not limited to, any covenants not to sue or releases of liability.

XXV. SEPARATE DOCUMENTS

This Judgment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Judgment may be executed in duplicate original form.

IT IS SO AGREED BY:

MIGHIGAN/DEPARTMENT OF ENVIRONMENTAL QUALITY		
Jul 1710 DEPOTY DIRECTOR IN	Dated 8/8/2006	•
Andrew W/Hogarth, Chief		
Remediation and Redevelopment Division		
Michigan Department of Environmental Quality		
525 West Allegan, Constitution Hall		
Lansing, MI 48933		
Telephone: (517) 335-1104	•	
MICHIGAN DEPARTMENT OF ATTORNEY	GENERAL	
	•	

Dated 8-8-06

Kathleen L. Cavanaugh (P 38006)

Assistant Attorney General

Environment, Natural Resources, and Agriculture Division

Michigan Department of Attorney General

525 West Ottawa, 6th Floor, Williams Bldg.

P.O. Box 30755

Lansing, MI 48909

BASF CORPORATION K. Edward Nuernberg Wyandotte General Manager BASF Corporation	Dated August 7,206
	Dated
Steven C. Nadeau	Dated
Attorney for Defendant	
HONIGMAN MILLER SCHWARTZ & COHN, LLP	
660 Woodward Ave Ste 2290	•
Detroit MI 48226	
Phone: (313) 465-7492	/
Fax: (313) 465-7493	ars.
IT IS SO ORDERED, ADJUDGED AND DEC	CREED THIS day of
	JAMES R. GIDDINGS
	Circuit Court Indoe

s: NR/AC/cases/1999/BASF/cj 7-17-06

BASF CORPORATION

	Dated		
K. Edward Nuernberg			
Wyandotte General Manager			
BASF Corporation			
			•
Ateven C. Neder	Dated	August 7 2006	
Steven C. Nadeau (?27787)			
Attorney for Defendant	•		
HONIGMAN MILLER SCHWARTZ & COHN, LLP			
660 Woodward Ave Ste 2290		•	
Detroit MI 48226		•	
Phone: (313) 465-7492			
Fax: (313) 465-7493			
IT IS SO ORDERED, ADJUDGED AND DEC	REED THIS _	day of	, 2006.
		÷	
	Circuit Co	urt Judge	

s: NR/AC/cases/1999/BASF/cj 7-17-06

Attachment A

Property Description

A parcel of land located in fractional Section 5, Town 4 South, Range 11 East, described as:
Beginning at the point of intersection of the Easterly line of Bridge Road 86-feeet wide, and the
Easterly line of West Jefferson Avenue, 106-feet wide, and proceeding thence along the Easterly
line of Bridge Road, South 0 degrees 37 minutes 40 seconds East 518.57 feet; thence South 30
degrees 21 minutes 20 seconds East 61.78-feet; thence South 71 degrees 37 minutes 10 seconds
East 792.28-feet to a point on the United States Harbor Line; thence North 31 degrees 41
minutes 30.4 seconds East 1133.37-feet along the United States Harbor Line to a point; thence
North 60 degrees 54 minutes 20 seconds West 1142.46 feet to a point on the Easterly line of
West Jefferson Avenue; thence South 28 degrees 55 minutes 40 seconds West 797.75 feet along
Easterly line of West Jefferson to the point of beginning.

ATTACHMENT B

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY REMEDIATION AND REDEVELOPMENT DIVISION SUMMARY REPORT

Site Name: BASF Riverview

County Wayne

Site ID Number 82000016 Project Number 455100 and 455325

Total for Employee Salaries and Wages Period Covered: 7/25/98 - 10/23/04 Indirect Dollars	\$271,004.71 \$51,094.38
Sub-Total	\$322,099.09
Total for Employee Travel Expenses Period Covered: 3/10/99 - 8/14/04	\$5,401.17
Total for Contractual Expenses Trace Analytical Labatories Lab overflow (Y80243) Period Covered: 6/2/99-9/20/04 Trace Analytical Labatories Lab overflow (Y03088)	\$10,027.88 ·
Period Covered: 6/2/99-5/20/02 Malcolm Pirnie, Inc. P0000499	\$149,347.39
Period Covered: 10/1/99-12/3/99 Malcolm Pirnie, Inc. P0001507	\$1,123.57
Period Covered: 4/1/00-7/30/04 Michigan State University (Y00270-D)	\$323,280.92
Period Covered: 4/1/03 - 6/30/04	\$198,500.00 \$682,279.76
Total for Miscellaneous Expenses Period Covered: 4/20/99-6/24/04	\$3,175.63
MDNR/MDEQ Lab Period Covered: 3/4/99 - 5/18/00	\$112,524.57
Total for MDPH/Community Health Expenses	\$0.00
Attorney General Expenses	#E0.000.05
Period Covered: 4/30/99 - 7/31/04	\$59,096.25
Total Combined Expenses for Site	<u>\$1,184,576.47</u>

ATTACHMENT C INTERIM RESPONSE ACTIVITY SCOPE OF WORK

BASF Riverview Facility

The Interim Response Activities (IRA) to be conducted to achieve the performance objectives provided in paragraph 6.1(a) of the Judgment shall, at a minimum, include:

L. CONSTRUCTION AND START UP OF THE CONTAINMENT SYSTEM

The containment system shall be designed and constructed to effectively and reliably cease the migration, discharge, or venting of groundwater from the Containment Area. For the purpose of this Scope of Work (SOW), the term "groundwater" shall also include leachate, but does not include groundwater in bedrock, except as provided under Section II.C.2(c) of this SOW. The containment system shall, at a minimum, consist of a perimeter barrier; a surface cap; a groundwater collection, extraction, recirculation, and treatment system; and a monitoring network, as set forth below. All components of the containment system shall be maintained in perpetuity or until the Michigan Department of Environmental Quality (MDEQ) approves that the component is no longer necessary. Major, non-mechanical components of the containment system including, but not limited to, the sheet pile wall shall have a minimum design life of 30 years. The containment system's operation and maintenance plan shall address the replacement of all components in the event of failure and/or based on the expected or designed service life, unless the component's effectiveness and integrity is otherwise demonstrated to the satisfaction of the MDEQ. Compliance with the performance objective set forth in Paragraph 6.1(a)(i) of the Judgment shall be determined in accordance with Section IV of this SOW.

A. Dredging

1. Sediments present in the sediment removal area (SRA), as defined in Paragraph 4.21 of the Judgment, shall be removed as set forth herein and disposed of in accordance with all applicable state and federal laws and regulations. For the purposes of

this SOW and the Judgment, sediments shall include any sediment, soil, wastes, debris, riprap, or other materials located below the Detroit River low water datum level which is defined as the sloping surface of the Detroit River when Lake St. Clair is at an elevation of 572.3 (International Great Lakes Datum (IGLD) 1985) feet and Lake Erie is at an elevation of 569.2 (IGLD 1985) feet [Reference: National Oceanic and Atmospheric Administration, National Ocean Service, Detroit River Soundings, 9th Edition, March 9, 1985], excluding any wastes, debris, rip-rap, or materials having a dimension of eighteen (18) inches or greater. Prior to the commencement of sediment removal activities, the Defendant shall submit a sediment removal plan to the MDEQ as part of the Progress Reports required to be submitted under Paragraph 6.11 of the Judgment or earlier.

- 2. Sediment removal shall be conducted in accordance with all required permits and shall, in general, proceed from upstream to downstream from the shoreline outward toward the U.S. Harbor Line. Sediment removal within the SRA will be deemed complete upon the earliest occurrence of when pre-dredging and post-dredging surveys indicate that sediments have been removed to the target dredging depth identified in the sediment removal plan or when a total final volume of 30,000 cubic yards of sediments, as determined below by the method set forth in paragraph I.A.3, have been removed. The final volume of sediments required to be removed by Defendant shall not exceed 30,000 cubic yards. The removed sediments may be disposed of within the Containment Area or otherwise in accordance with all applicable state and federal laws and regulations.
- 3. Sediment removal volume shall be measured using pre-dredging and post-dredging bathymetric surveys of the SRA, and the volume of materials removed having a dimension of eighteen (18) inches or greater. All removed materials having a dimension of eighteen (18) inches or greater shall be separated and stockpiled to determine the total volume of materials exceeding this dimension. For the purposes of this SOW and the Judgment, the sediment removal volume shall be determined by subtracting the volume of dredged materials having a dimension of greater than eighteen (18) inches from the total removal volume determined by the pre-dredging and post-dredging surveys. Following determination of the sediment removal volume, the separated materials may be disposed of within the Containment Area or off-site in accordance with all applicable state and federal laws and regulations.

B. Geotechnical Borings

In accordance with the "Revised Slurry Wall Alignment and Ground Water Collection Trench Alignment Subsurface Investigation, Technical Scope of Work," approved by MDEQ on February 21, 2006, and prior to the construction of the perimeter barrier set forth in section I.C. of this SOW, geotechnical borings shall conducted every 100 feet along the proposed location of the groundwater collection trench along the SCB wall and the proposed location of the upland barrier wall using a cone penetrometer or geoprobe to determine the depth to the Competent Clay. For purposes of this SOW, "Competent Clay" shall be defined as inorganic clay that fits the CL classification per ASTM procedure D 2487, Classification of Soils for Engineering Purposes that is identified using borings by an engineer or geologist. The Competent Clay is to be below any fill or alluvial sediments such as peat, sand or organic clays and cannot include significant roots or remnant root structures. The geotechnical borings shall be drilled a minimum of four (4) feet into Competent Clay. The boring logs for the geotechnical borings shall be included in the design plans submitted under Section III of this SOW. Previously drilled soil borings can be used to satisfy the 100 foot spacing requirement provided the specifications of ASTM procedure D 2488 "Description and Identification of Soils" are met. BASF may petition the MDEQ to limit the number of samples sent to the laboratory for analysis by utilizing ASTM procedure D 2488 in combination with ASTM procedure D 2487.

C. Perimeter Barrier

- 1. Riverside Barrier Wall. The riverside barrier wall shall consist of a steel sheet pile wall (Primary Wall) placed along the Detroit River's (River's) edge and an adjoining soil-cement-bentonite (SCB) wall adjacent to the interior (i.e., landward) of the Primary Wall. The Primary Wall shall be constructed in a manner to allow installation and attachment of a second sheet pile wall ("Contingency Wall") in the event that such a wall is necessary as a contingency action, as described in Section IV.C. of this SOW. Both the Primary and SCB walls shall be constructed to meet all applicable state and federal requirements and in accordance with the following minimum specifications:
- (a) The Primary Wall shall have interlocking joints and shall be sealed with a material that is resistant to weathering and degradation from the hazardous substances present at the Property.
- (b) The Primary Wall shall have a design hydraulic conductivity of 10^{-7} cm/sec or less at all points, including joints.

- (c) The Primary Wall shall be installed to the depth of the bedrock and may be supported on the river side as needed for structural stability and erosion control with stone placed along the toe of the wall as appropriate. Placement of the toe stone shall not occur prior to completion of the dredging activities required under Section I.A. above. Further, toe stone shall not be placed at any location along the wall where sediments have not been removed. In the event installation of the Contingency Wall is required, toe stone along the alignment of the Contingency Wall, including the area between the Contingency Wall and Primary Wall, shall be removed prior to installation of the Contingency Wall.
- Primary Wall utilizing clean imported soil. Upon constructed inland of and adjacent to the Primary Wall utilizing clean imported soil. Upon construction, the SCB Wall shall completely fill the void between the Primary Wall and the shore and shall extend a minimum of four (4) feet into the Competent Clay or four (4) feet below any fill or non-native materials located within a 100 foot radius (measured to the upland side of SCB Wall), whichever is deeper, unless the structural stability of the Primary Wall would require structural bracing during construction of the SCB Wall, in which case the SCB Wall shall extend no less than two (2) feet into the Competent Clay. The Basis of Design for the SCB Wall shall include a demonstration of structural stability for the Primary Wall showing planned structural bracing and shall be submitted in the Sixty (60) or Ninety (90) percent design plans pursuant to Section III of this SOW. The SCB Wall thickness shall have a minimum thickness of ten (10) feet, except in the jet grouted area located in the northeast corner of the Property. The SCB Wall within the jet grouted area shall have a minimum thickness of three (3) feet. The SCB Wall shall have a designed hydraulic conductivity of 10⁻⁷ cm/sec or less at any point along the wall.
- (e) If required pursuant to Section IV.C. of this SOW, a Contingency Wall, consisting of a second sheet pile wall or equivalent construction approved by the MDEQ, shall be constructed outward of the Primary Wall along the River to provide additional containment and allow for chemical monitoring along the River's edge. The distance between the Primary Wall and Contingency Wall shall be sufficient to allow for the placement of clean sand and gravel backfill material and installation of standard two (2)-inch diameter monitoring wells. The backfill materials shall have an average hydraulic conductivity of 10⁻² cm/sec or greater.
- 2. <u>Upland Barrier Wall</u>. The upland barrier wall ("Slurry Wall") shall be constructed as a vertical wall as close as practicable to the property line, except in the southwest corner of the Property that is subject to the lease agreement between Defendant and the City of Riverview (Leased Parcel) for use as a parking lot. The Leased Parcel is legally

described in Attachment G of the Judgment and generally depicted on Attachment E of the Judgment. The Slurry Wall adjacent to or within the Leased Parcel may be located as close as practicable to the eastern and northern boundary of the existing paved parking lot or as close a practicable to the property line. The Slurry Wall shall extend a minimum depth of two (2) feet into the Competent Clay but shall, at all times extend at least four (4) feet below the lowest depth of any fill or non-native materials along the footprint of the Slurry Wall. The Slurry Wall shall be constructed of a mixture of clean imported clay, bentonite, and water and shall be a minimum of three (3)-feet thick and have a design hydraulic conductivity 10^{-7} cm/sec or less at all points along the wall.

D. Impermeable Cap

An impermeable cap shall be constructed across the entire surface of the Containment Area, as defined in Paragraph 4.1 of the Judgment, excluding the poplar groves and below the treatment building, to effectively restrict surface water infiltration and prevent unacceptable exposures to hazardous substances in compliance with applicable laws and regulations. The construction of the treatment building shall provide an equivalent barrier as the cap. Except as modified below, the cap shall be designed and constructed in compliance with R 299.4425 of the administrative rules promulgated under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) that were effective April 12, 1999 and all subsequent amendments in effect at the time of construction.

- 1. R299.4425 2(a) exception- The infiltration barrier required pursuant to R 299.4425(2) (a) shall consist of a minimum of 12 inches of earthen material overlain with either a 40 mil flexible low-density polyethylene (LLDPE) liner or a material with similar or better performance that is approved by the MDEQ.
- 2. R299.4425 6(a) and 6(b) exception- Gas control system are not required to be installed unless required by Part 55, Air Pollution Control, of the NREPA or other applicable law.
- 3. R299.4425 7 exception-The final grading contours of the cap required pursuant to R 299.4425(7) shall not be less than 2% at any location.

E. Poplar Groves

Except as provided below, four existing groves of hybrid poplar trees may be retained and irrigated with treated groundwater extracted from within the Containment Area. A soil cover that effectively prevents unacceptable exposures to hazardous substances that may be present within the poplar groves shall be constructed in compliance with all applicable laws and regulations. In the event that Defendant cannot demonstrate to the satisfaction of the MDEQ that waste materials are not present under the poplar groves, the Interim Response Designed to Meet Criteria (IRDC) for the Upland Facility shall provide for the elimination of the poplar groves and extension of the impermeable cap required in Section I.D. of this SOW over the poplar grove areas unless otherwise approved, in writing, by MDEQ.

F. Groundwater Extraction, Treatment, and Recirculation System

- 1. A groundwater extraction system shall be constructed along the entire inside perimeter of the riverside barrier wall and the upland barrier wall. The groundwater extraction system shall, at a minimum, consist of a groundwater collection trench filled with highly permeable materials; a groundwater collection pipe and a series of groundwater sumps and pumps and associated pump controls; and a groundwater interception trench constructed between the poplar groves and the groundwater infiltration gallery.
- 2. The groundwater treatment and recirculation system shall consist of water treatment systems, an underground irrigation system that will receive treated groundwater for the poplar groves, and one underground infiltration gallery that will receive groundwater for recirculation within the Containment Area.
- 3. The groundwater extraction, treatment, and recirculation system shall meet all applicable state and federal requirements including, but not limited to, Part 31, Water Resources Protection, and Part 55, Air Pollution Control, of the NREPA, and shall be constructed in accordance with the following minimum specifications:
- (a) The groundwater extraction trench shall be constructed as close to the upland barrier wall and the SCB Wall along the riverside barrier wall as structurally feasible and shall be a minimum of 24 inches in width. Along the SCB Wall, the trench shall extend to the top of the Competent Clay or a minimum of two (2) feet below fill or non-native material located within 100 ft. radius upland of the proposed trench location, whichever is deeper.

Along the upland barrier wall, the trench shall extend two (2) feet into the Competent Clay, or two (2) feet below fill or non-native material located within 100 ft. inward of the property line, whichever is deeper. The entire length of the trench shall be lined with a permeable geotextile membrane to mitigate clogging and shall be backfilled from the base to the top of the fill with a material that is freely draining and contains less than five (5) percent fines (i.e., capable of passing through a No. 200 sieve) by volume and has a minimum hydraulic conductivity of 10⁻² cm/sec or greater. The backfill material shall be free of angular material that may puncture or otherwise damage geotextile fabric or collection pipes. Information including boring logs, cross sections and interpretive maps and drawings, along with other relevant information used in the determination of the trench depth shall be included with the Progress Reports required to be submitted to the MDEQ in accordance with Paragraph 6.11 of the Judgment.

- (b) Perforated groundwater collection pipes shall be a minimum of six (6) inches in diameter and be constructed of materials sufficient to withstand the overburden pressure and chemical conditions within the Containment Area. The collection pipe adjacent to the SCB Wall shall be positioned at an elevation no higher than five feet below the River's historical low level (approximately 571 feet (IGLD 1985)). The collection pipe adjacent to the upland barrier wall shall be positioned at or near the base of the trench. The collection pipe shall be sloped so as to achieve a minimum of one (1) percent decreasing grade toward the sump locations.
- (c) Collection sumps and pumps shall be installed in sufficient numbers and at sufficient locations such that the groundwater collection system can achieve and maintain the required minimum one (1) foot inward hydraulic head differential along the entire containment system's perimeter. The pumps shall be capable of operating in the expected chemical conditions within the Containment Area and must be sized to operate efficiently under the expected flow conditions. The groundwater extraction system shall be designed and constructed with sufficient redundancy, and operated and maintained in a manner acceptable to the MDEQ that assures the system can effectively operate and continually maintain the performance objectives set forth in Paragraph 6.1(a) and (c) of the Judgment under reasonably anticipated site conditions including, but not limited to, weather conditions, equipment malfunctions, and power failures.
- (d) The pump control system shall be centralized and capable of immediately notifying personnel of a pump failure or shut down. Additional data and information

necessary to adequately monitor and control the groundwater extraction, treatment and recirculation system (e.g., flow rates, electrical usage) shall be recorded.

- (e) The groundwater treatment system shall sufficiently treat extracted groundwater onsite to allow for the irrigation of the poplar trees without impairing the health of the trees, the re-circulation of the groundwater to the infiltration gallery, and, if required, off-site disposal of groundwater in compliance with all applicable state and federal laws and regulations.
- (f) The groundwater recirculation system shall operate via passive gravity drainage once water is delivered to the infiltration gallery. The infiltration gallery shall be installed within the Containment Area beneath the cap at a sufficient depth below ground surface to avoid freezing and shall include a gravel drainage layer surrounding a network of perforated piping, with rock-filled cisterns below the drainage layer.
- (g) The groundwater extraction, treatment, and recirculation system shall include all appropriate vapor control devices to comply with all applicable state and federal laws and regulations.

G. Groundwater Monitoring Well Network

- 1. The groundwater monitoring well network shall be adequate to assess the integrity and effectiveness of the containment system and shall, at a minimum, consist of groundwater monitoring wells located: exterior of the containment system along the upland barrier wall; within the SCB Wall of the riverside barrier wall; within the groundwater collection trench; within the waste and fill materials interior of the groundwater collection trench; and stilling wells located in the River as set forth herein. All monitoring wells shall be constructed following industry acceptable standards such as ASTM D-5092 or equivalent, and shall conform with the provisions of R 299.4906 (3) through (8). All monitoring well screen lengths are to be sufficient to accommodate expected changes in water levels but should not be longer than five (5) feet, except as otherwise provided herein.
- (a) <u>Collection Trench Monitoring Wells</u>. Monitoring wells shall be located within the groundwater collection trench (hereafter referred to as the "Trench Wells") along each barrier wall and at all corners and major turns (i.e., greater than 60 degrees). The spacing between Trench Well locations shall be determined through design but shall not, where

practicable, exceed one hundred and fifty (150) feet along the riverside barrier wall and 200 feet along the upland barrier wall unless otherwise approved, in writing, by the MDEQ. Three of the Trench Wells within the trench adjacent to the SBC Wall shall be installed as nested wells. The nested wells shall be installed in areas where the saturated thickness in the collection trench is equal or greater than 10 feet and preferably at a central location and at each corner of the wall. Within the nested wells, the lower well shall be screened at the base of the trench and the upper well shall be screened at the depth of the collection pipe. The Trench Wells shall be installed as far away as practical from the collection pipe. At the single trench well locations, the well screen is to be installed at the base of the trench. The Trench Well screens shall be two (2) feet in length for the deeper wells and five (5) feet in length for the well screens set at the collection pipe elevation. At each nested well location, the well with the screen nearest the elevation of the base of the groundwater collection trench shall be used for determining non-compliance events and reversals of hydraulic head differential under Section IV of this SOW.

- (b) <u>Perimeter Monitoring Wells</u>. Monitoring wells shall be installed along the riverside and upland barrier walls as follows:
- points for measuring the inward hydraulic head differential across the Upland Wall, monitoring wells (hereafter referred to as the "Upland Wells") shall be installed exterior of the upland perimeter barrier wall directly across from each Trench Well location, thus creating monitoring well pairs. The Upland Wells shall be screened within the upper unconfined saturated zone at the base of the fill or the top of the clay. In the event the saturated zone is greater than ten (10) feet, the Upland Well shall be installed as a monitoring well nest, consisting of two monitoring wells, of which the upper well is screened to intersect the water table surface and the lower well is screened at the depth of the base of the groundwater collection trench. At each well nest location, the well with the screen nearest the elevation of the base of the groundwater collection trench shall be used for monitoring groundwater elevation.
- (ii) <u>Riverside Barrier Wall</u>. Monitoring wells (hereafter referred to as the "SCB Wells") shall be installed in the SCB Wall directly across from each of the Trench Wells such that the base of the SCB Well is at a depth equivalent to the base of the groundwater extraction trench adjacent to the SCB Well. The SCB Wells shall be screened along the well's entire vertical length below the impermeable cap.

- (c) Stilling Wells. Two stilling wells shall be installed in the River and secured to the northernmost and southernmost corner of the Primary Wall. The stilling wells shall be adequately designed to withstand expected flow and ice conditions and shall, at a minimum, be constructed of steel piping from four (4) to eight (8) inches in diameter and have a sealed bottom with a small diameter hole one (1) inch or less within one (1) foot of the bottom of the well. The base of the wells shall be located approximately midway between the River's bottom and the average seasonal low water level.
- (d) Interior Monitoring Wells. A minimum of five (5) monitoring wells (hereafter referred to as the "Interior Wells") shall be positioned in the waste materials within the interior of the containment system such that the groundwater elevations within the Containment Area can be effectively monitored. The Interior Wells shall be optimally placed to determine the groundwater flow direction throughout the Containment Area. The wells shall be screened in the saturated fill material at a sufficient depth to remain useable once steady state conditions are achieved. One (1) additional interior monitoring well (hereafter referred to as the "Bedrock Well"), shall be centrally located within one hundred (100) feet of the riverside barrier wall and screened in the bedrock. The Bedrock Well shall be constructed so as to prevent downward migration of fluids along the well annulus. The infiltration gallery shall have a sufficient number of monitor wells installed at appropriate locations to effectively measure water elevation within the gallery and allow for adequate control of the groundwater recirculation system and assessment of the containment system's water balance.

H. Permarient Markers

Permanent markers shall be installed along all four sides of the Containment Area as defined in Paragraph 4.1 of the Judgment. The materials of construction, inscription, method of installation, and location of the permanent markers shall be included with the design plans required under Section III of this SOW and submitted with the Progress Reports required under Paragraph 6.11 of the Judgment and are subject to the approval of the MDEQ.

II. MONITORING

Construction and operation of the Interim Response Activity (IRA) shall be monitored to assure the containment system is constructed in compliance with the design specifications set

forth in Section I.C. through H. of this SOW; to continually assess the effectiveness and integrity of the containment system during operation; and to determine compliance with the performance objectives set forth in Paragraph 6.1(a) of the Judgment. Monitoring activities shall comply with the requirements of Part 201 and shall, at a minimum, include all of the elements identified below.

- A. <u>Construction Monitoring</u>. Construction of the containment system shall be monitored in accordance with a Construction Quality Assurance Plan (CQAP) to assure that the containment system is installed as designed and will achieve the performance objectives set forth in Paragraphs 6.1(a) and 6.5 of the Judgment and this SOW. The CQAP shall be included with the design plans required under Section III of this SOW and submitted with the Progress Reports required under Paragraph 6.11 of the Judgment. The CQAP shall identify the industry standard monitoring procedures, including the ASTM test methods that will be implemented, and the monitoring schedules. The CQAP shall also incorporate the requirements of 40 CFR Part 264.19 (b) and (c) and shall, at a minimum, address the pertinent design factors of the containment system following the relevant examples illustrated in the USEPA's "Evaluation of Subsurface Engineered Barriers and Waste Sites", EPA 542-R-98-005. The CQAP shall include, but not be limited to the following:
 - 1. Verticality testing of the River barrier wall during installation.
- 2. Visual or camera inspection of the groundwater collection piping during or after installation to verify compliance with R 299.4919(2).
- 3. Field documentation confirming the location and depth of the collection trench.
- 4. Pre-dredging and post-dredging bathymetric surveys to determine initial sediment removal volumes and measurement of the volume of sediments with a dimension of eighteen (18) inches or greater which are to be excluded from the final sediment removal volume in accordance with Section I.A. of this SOW.
- 5. Photo documentation of the placement of dredged sediments and materials onsite.

- 6. Representative field testing to ensure the design properties of the riverside barrier walls (i.e., Primary and SCB Walls) and the upland perimeter barrier (i.e., Slurry Wall) are met.
 - 7. Verification of Slurry Wall key depth.
- 8. Well and boring logs for all wells. The boring and well logs are to include all the information provided in well and boring logs found in the January 2001 Technical Memorandum, 2000 Site Investigation completed by URS on behalf of Defendant. The logs shall also include other appropriate data collected during the well and boring drilling, construction, sampling or testing processes.
- 9. Documentation of construction of the impermeable cap that conforms with the cap construction requirements in Section I.D. of this SOW.
- 10. An elevation survey, completed by a State of Michigan licensed surveyor, of the cap as soon as feasible following construction. All elevations must be referenced to the International Great Lakes Datum (1985) and to the National Geodetic Vertical Datum (1929).
- 11. Ambient air particulate matter and gaseous monitoring, prior to construction and during construction. Ambient air monitoring is to be conducted at a minimum of four (4) sites. One site shall be placed in the predominant upwind location and three at downwind locations of the response activity. These monitoring sites may be relocated as response activities progress. The monitoring instrumentation shall be capable of measuring particulate matter at ten (10) micrograms per cubic meter and mercury at ten (10) micrograms per cubic meter. Equipment shall be installed to measure and record meteorological data, including wind direction and approximate wind speed. All air quality and meteorological data shall be collected on a continuous or semi-continuous basis (i.e., minutes).
 - 12. All boring logs for the geotechnical borings referenced in Section I.B.
- 13. A Construction Certification Report, including "As Built" plans, shall be submitted to the MDEQ within six (6) months after completion of construction of the containment system. The Construction Certification Report shall include all of the data listed and discussed in this section and is to include any additional data required as part of the Quality Assurance Project Plan. The Construction Certification Report shall be signed by a licensed Professional Engineer.

- B. <u>Containment System Operation and Maintenance Plan</u>. Operation and maintenance (O&M) of the containment system shall be conducted in accordance with the O&M Plan (CSOMP) that complies with the requirements of R 299.5538 (1) and (2) of the Part 201 Administrative Rules (Part 201 Rules). The CSOMP shall be submitted with the design plans required under Section III of this SOW and submitted with the Progress Reports required under Paragraph 6.11 of the Judgment.
- shall be conducted in accordance with a Containment System Monitoring Plan (CSMP) to assure the containment system is continually achieving the performance objectives set forth in Paragraphs 6.1(a) and 6.5 of the Judgment and this SOW. The CSMP shall identify the monitoring procedures, including the ASTM test methods and data evaluation methods and other protocols that will be followed, and schedules that will be undertaken to comply with R 299.5540 of the Part 201 Rules. The CSMP shall be included with the design plans required under Section III of this SOW and submitted with the Progress Reports required under Paragraph 6.11 of the Judgment. The CSMP shall, at a minimum, provide for:
- shall be automated and provide for an immediate alarm notification to the Defendant any time there is a loss the required minimum one (1)-foot inward hydraulic head differential at any monitoring location. Water level measurements in each of the groundwater collection sumps, the Trench Wells, the Upland Wells, and the stilling wells shall be collected and recorded to a permanent data logger every thirty (30) minutes. In the three (3) nested monitoring well locations located in the collection trench the monitoring well set nearest the base of the trench shall be recorded to a permanent data logger every 30 minutes. The monitoring well set at the higher elevation shall be manually monitored and the reading shall be submitted to the DEQ in the monitoring reports. Upon completion of the containment system's start-up period, Defendant may submit a request to the MDEQ for review and approval to modify the hydraulic monitoring and water level comparison requirements
- 2. <u>Groundwater Chemical Monitoring</u>. Groundwater samples shall be collected in the manner set forth herein from the SCB Wells, the Upland Wells, and the Bedrock Wells. The static water level within each of the SCB Wells, Upland Wells, and Bedrock Well shall be measured immediately prior to the collection of the groundwater sample. If

groundwater is present in a well, a discrete groundwater sample (i.e., compositing samples is not permitted) shall be collected from each well utilizing dedicated sampling devices following low flow - minimal drawdown procedures. The groundwater samples shall be analyzed for the parameters specified below. The collection and analysis of the groundwater samples shall be in accordance with the procedures set forth in MDEQ Operational Memorandum No. 2, Sampling and Analysis, or other procedures approved by the MDEQ.

Selected Analytical Parameters

Volatiles Organic Compounds	Sodium	Alkalinity
Polychlorinated biphenyls	Total Iron	Ammonia
Base/Neutral/Acids	Dissolved Iron	Total phosphorus
Dioxin/Furans	Total Manganese	Total dissolved solids
Cyanide, Available	Chloride	pH
Low Level Mercury	Sulfate	Conductivity
Arsenic	Nitrate	Chemical oxygen demand
Chromium VI	Nitrite	Total organic carbon
Chromium (Total)	Hardness	

- (a) <u>SCB Wells</u>. The SCB Wells shall be inspected every three (3) months for two (2) years, and if groundwater is present, the groundwater shall be sampled and analyzed as set forth above. To provide for determination of the baseline groundwater quality for each of the individual wells, sampling shall continue until a minimum of eight (8) samples are collected from each SCB Well. Upon the collection and analysis of eight (8) groundwater samples from each well, the chemical monitoring requirements for the specific well shall terminate unless otherwise required under Section IV.B.3. of this SOW or Paragraph 6.10 of the Judgment. In the event the chemical monitoring requirements are terminated, Defendant shall maintain the wells such that chemical monitoring may be recommenced, if required under Section IV.B.3. of this SOW or Paragraph 6.10 of the Judgment. If, during the establishment of the baseline groundwater quality, conditions warrant a modification, Defendant may submit a request to the MDEQ for review and approval to modify the analytical parameters and/or sampling frequency.
- (b) <u>Upland Wells</u>. The groundwater in the Upland Wells shall be sampled and analyzed as set forth above every three (3) months for two (2) years to provide for determination of the baseline groundwater quality for each of the individual wells. Upon completion of the two (2) years sampling period, the chemical monitoring requirements for the Upland Wells shall terminate unless otherwise required under Section IV.B.3. of this SOW or

Paragraph 6.10 of the Judgment. In the event the chemical monitoring requirements are terminated, Defendant shall maintain the wells such that chemical monitoring may be recommenced, if required under Section IV.B.3. of this SOW or Paragraph 6.10 of the Judgment. If, during the establishment of the baseline groundwater quality, conditions warrant a modification, Defendant may submit a request to the MDEQ for review and approval to modify the analytical parameters.

- sampled and analyzed as set forth above every three (3) months for a period of two (2) years to provide for determination of the baseline groundwater quality for the well. Upon completion of the two (2) years sampling period, the chemical monitoring requirements for the Bedrock Interior Well shall terminate unless otherwise required under Section IV.B.3. of this SOW and Paragraph 6.10 of the Judgment. In the event the chemical monitoring requirements are terminated, Defendant shall maintain the well such that chemical monitoring may be recommenced, if required under Section IV.B.3. of this SOW or Paragraph 6.10 of the Judgment. If, during the establishment of the baseline groundwater quality, conditions warrant a modification, Defendant may submit a request to the MDEQ for review and approval to modify the analytical parameters.
- 3. Groundwater Treatment System Monitoring. The groundwater samples are to be collected at selected points specified in the CSMP. The data shall be submitted to the MDEQ as set forth above and shall include a graphical presentation of monthly and yearly volumes of groundwater collected and treated during the current reporting period and a comparison to volumes collected and treated in the previous three (3) reporting periods. At a minimum, the following data should be collected on a monthly basis:
- (a) The volume of groundwater: (1) collected; (2) treated and re-circulated as irrigation water to each of the poplar groves; (3) re-circulated directly to the infiltration gallery without treatment; and, (4) disposed of off site. The water volumes shall be measured using fluid flowmeters appropriate for the expected flow rate. The flowmeters shall include a measuring device with a digital readout and shall be designed for the measurement of the instantaneous and cumulative flow rate. Defendant may submit a request to the MDEQ for review and approval to modify the analytical parameters and/or sampling frequency.

- (b) The influent and effluent chemical characteristics and parameters identified in II.C.2. above and any other parameter or data required under any discharge permit or authorization.
- (c) Any other information or data required for the evaluation and explanation of changes in volume and chemical characteristics of the groundwater collected and treated.

If during the operation of the groundwater treatment system, conditions warrant a modification, Defendant may submit a request to the MDEQ for review and approval to modify the monitoring parameters and frequency of monitoring the groundwater treatment system.

4. Other Monitoring. In addition to the monitoring requirements required under Section II.C.1. through 3. of this SOW, the CSMP shall provide for the collection of all other data or information necessary to assess the effectiveness and integrity of the IRA, assure that the IRA continually achieves the performance objectives set forth in Paragraphs 6.1 and 6.5 of the Judgment and this SOW, and comply with Part 201. Such monitoring may include, but is not limited to: monitoring to document the integrity of the exposure control mechanisms and compliance with land use or resource use restrictions; and other monitoring necessary to comply with any state or federal environmental laws, regulations or permits (e.g., storm water management.)

III. REPORTING

Thirty (30), sixty (60), and ninety (90) percent design plans shall be included in the Progress Reports required to be submitted to the MDEQ in accordance with Paragraph 6.11 of the Judgment. Where existing designs are more complete than 30 percent, 60 percent or 90 percent, the level of design shall be indicated with the submittal. Defendant shall maintain and manage all data or information collected pursuant to the CQAP, CSOMP and CSMP in accordance with Section XI (Record Retention/Access to Information) of the Judgment. Summaries of the data and information collected pursuant to the CQAP, CSOMP and CSMP shall be compiled in a CQAP, CSOMP, and CSMP monitoring report, as appropriate, and shall be submitted to the MDEQ in both written and electronic format as part of the Progress Reports required under Paragraph 6.11 of the Judgment. The format of the CQAP, CSOMP and CSMP monitoring reports shall be included in the design plans submitted in the first Progress Reports required under Paragraph 6.11 of the Judgment. The monitoring reports shall include:

graphical summaries of the water level measurements and water table maps; an evaluation of the containment system's water balance; tabular summaries of analytical results; an evaluation of the containment system's performance for the reporting period; identification of potential problems or failures of the containment system and the actions undertaken to address such problems or failures; and identification of all actions or other measures to be undertaken during the next reporting period to assure the effectiveness and integrity of the containment system and the continual achievement of the performance objectives set forth in Paragraphs 6.1 and 6.5 of the Judgment.

IV. CORRECTIVE RESPONSE ACTIVITIES AND CONTINGENCY ACTIONS FOR NON-COMPLIANCE EVENTS

Upon completion of the IRA's start up period as defined in Paragraph 6.5 of the Judgment, Defendant shall maintain a minimum of one (1)-foot inward hydraulic head differential across the Containment Area's perimeter barrier at all times. Determination that there has been a failure to maintain the minimum one (1)-foot inward hydraulic head differential and the corrective response activities to be undertaken in response to the failure shall be provided as set forth below.

A. Determination of a Hydraulic Non-Compliance Event

Except as otherwise approved in writing by the MDEQ pursuant to Section II.C.1. of this SOW, determination that a Non Compliance Event has occurred due to failure to maintain the minimum one (1)-foot inward hydraulic head differential shall be based upon the following hydraulic head differential monitoring points:

1. Riverside Barrier Wall. The hydraulic head differential monitoring points shall include the Trench Wells adjacent to the riverside barrier wall and those at the North and South ends of the riverside barrier where the sheet pile wall extends upland. The discrete thirty (30)-minute static water elevations within each of the Trench Wells along the riverside barrier wall shall be compared against the lowest of the twelve (12)-hour running average water level elevation of either of the two stilling wells. The twelve (12)-hour running average shall be taken from readings 6 hours prior to and 6 hours after the trench well reading.

2. <u>Upland Barrier Wall</u>. The hydraulic head differential monitoring points shall include each of the Trench Wells adjacent to the upland barrier Slurry Wall and the corresponding paired Upland Well located outside the Slurry Wall. The upland barrier wall monitoring points do not include those monitoring wells located at the eastern ends of the north and south sections of the upland perimeter barrier wall where the riverside sheet pile wall extends upland. The discrete thirty (30)-minute static water level measurements within each Trench Well shall be compared to the equivalent thirty (30)-minute interval measurement of the paired Upland Well.

B. Corrective Response Activities

1. Proactive Response

- (a) An "Upset Condition" shall exist whenever the containment system's monitoring system activates an alarm or monitoring data indicates that the inward hydraulic head differential at any of the monitoring points is less than one (1) foot. Within forty-eight (48) hours of an alarm condition or identifying that an Upset Condition has occurred, a proactive response investigation shall be completed to determine the cause of the Upset Condition. Such an investigation may include, but is not limited to: a check of the computer program/alarm sequence; an on-line check of hydraulic head differential in adjacent monitoring well/stilling well pair; an evaluation of water levels within the collection trench sumps and groundwater collection flow rates; and/or manual static water level measurements and visual observations of the area of concern.
- (b) If it is determined that the monitoring well/stilling well pair is not reflecting actual water elevations within the area being monitored, the affected monitoring well and/or stilling well shall be repaired within five (5) calendar days. Such repairs may include redeveloping the monitoring well, repairing a leak in the monitoring well, repairing the stilling well, or other actions that are necessary to repair the malfunctioning unit. During the repair period, static water level measurements in the affected monitoring well/stilling well shall be manually measured daily until repairs are completed and the automated monitoring system has been determined to be functional. In the event a stilling well is structurally damaged, the water levels in the monitoring wells in the Trench Wells along the riverside barrier wall shall be compared to the remaining functional stilling well until such time as both stilling wells are functional.

(c) Notification of the Upset Condition shall be provided to the MDEQ within the next progress report submitted to the MDEQ. Such notification shall include the results of the proactive investigation and details of the actions taken to correct the malfunctioning monitoring unit. The Notification of the Upset Condition is not subject to the provisions of Section XIII (Submissions and Approval) of the Judgment.

2. Corrective Response Activities

- If the proactive response investigation undertaken pursuant to Section IV.B.1. above indicates that the monitoring well/stilling well pair does reflect actual water elevations within the area being monitored, the event shall constitute a Non-Compliance Event. Upon determination that a Non-Compliance Event has occurred, Defendant shall immediately undertake corrective response activities to regain a minimum one (1)-foot inward hydraulic head differential. Such initial corrective activities may include: cleaning of the collection trench or sumps, repair or replacement of collection sump pumps; increasing the extraction rate from the groundwater collection trench; transporting groundwater to an appropriate off-site facility; or other actions necessary to regain a minimum one (1)-foot inward hydraulic head differential within the area of concern. In the event the repairs disable the automatic water level measurements, manual water level measurements shall be collected daily during the repair period. In the event the circumstances of the repairs disable the monitoring well, an alternate temporary monitoring well shall be located within the groundwater collection trench or within the Containment Area interior of the groundwater collection trench as close as practicable to the disabled monitoring well. During the course of repairs and until the permanent monitoring well is re-established, the water level within the temporary monitoring well shall be measured daily for purposes of evaluating compliance with the minimum one (1)-foot inward hydraulic head differential.
- (b) Written notification of the Non-Compliance Event shall be provided to the MDEQ within forty-eight (48) hours of completion of the proactive response investigation. The results of the proactive investigation, details of the actions taken to regain compliance, and the total time of the Non-Compliance Event shall be included in the next progress report submitted to the MDEQ in accordance with Paragraph 6.11 of the Judgment. The notification of the Non-Compliance Event is not subject to the provisions of Section XIII (Submissions and Approval) of the Judgment.

- (c) Stipulated penalties as set forth under Section XV (Stipulated Penalties) of the Judgment shall accrue from the date the Non-Compliance Event was confirmed until the minimum one (1)-foot inward hydraulic head differential is regained. Each failure to maintain the minimum one (1)-foot inward hydraulic head differential at an individual monitoring well/stilling well pair shall constitute a separate Non-Compliance Event. Stipulated penalties for failure to maintain the minimum one (1)-foot inward hydraulic head differential shall accrue in accordance with Paragraph 15.1(b) of the Judgment.
- Chemical Monitoring. For purposes of this SOW, a reversal of hydraulic 3. head differential shall be deemed to have occurred whenever: (1) the groundwater elevation within a monitoring point along the riverside barrier wall, as set forth in Section IV.A.1. above, is higher than the lowest twelve (12)-hour running average water elevation of the two stilling wells or (2) a monitoring point along the upland barrier wall, as set forth in Section IV.A.2. above, is higher than the corresponding paired Upland Well. The twelve (12)-hour running average shall be taken from readings 6 hours prior to and 6 hours after the trench well reading. Each reversal of hydraulic head differential within the individual Trench Wells shall constitute a separate reversal of hydraulic head differential. In the event the duration of a reversal of hydraulic head differential is seventy-two (72) hours or longer, Defendant shall immediately collect groundwater samples from the Upland Wells and/or SBC Wells that are located within 1000 feet along the perimeter barrier wall in both directions of the monitoring point where the reversal of hydraulic head differential occurred or as otherwise approved in writing by the MDEQ. Groundwater samples shall be analyzed for the full suite of parameters specified in Section II.C.2. of this SOW unless otherwise approved by the DEQ. Groundwater monitoring shall continue monthly for a period of six (6) months. Upon completion of the six (6) month period, groundwater monitoring shall terminate, except as otherwise required in writing by the MDEQ. The results of the groundwater sampling shall be included in the Progress Reports required under Paragraph 6.11 of the Judgment. Based on the groundwater monitoring results the MDEQ may request, pursuant to Paragraph 6.10 of the Judgment, that Defendant undertakes additional response activities including, but not limited to, investigations to evaluate the integrity of the containment system in the area of concern.
- C. <u>Implementation of the Riverside Contingency Response Activities</u>. Failure of the containment system to comply with the performance standard set forth in Paragraph 6.1(a)(i) of the Judgment along the riverside barrier shall be deemed to have occurred if the cumulative

duration of the reversals of hydraulic head differential, as defined in Section IV.B.3. above, along the riverside barrier wall within any 1095 day running period exceeds ninety (90) days. Within thirty (30) days of occurrence of the above condition, a work plan and schedule shall be submitted to the MDEQ, for review and approval, that specifies the contingency actions to be undertaken to regain compliance with the performance objectives specified in Paragraph 6.1(a)(i) of the Judgment. The contingency actions shall, at a minimum, include the installation of the Contingency Wall set forth in Section I.C.1.(e) of this SOW. Defendant shall immediately implement the MDEQ-approved work plan upon receipt of MDEQ's written approval.

V. Modification of the IRA and this SOW

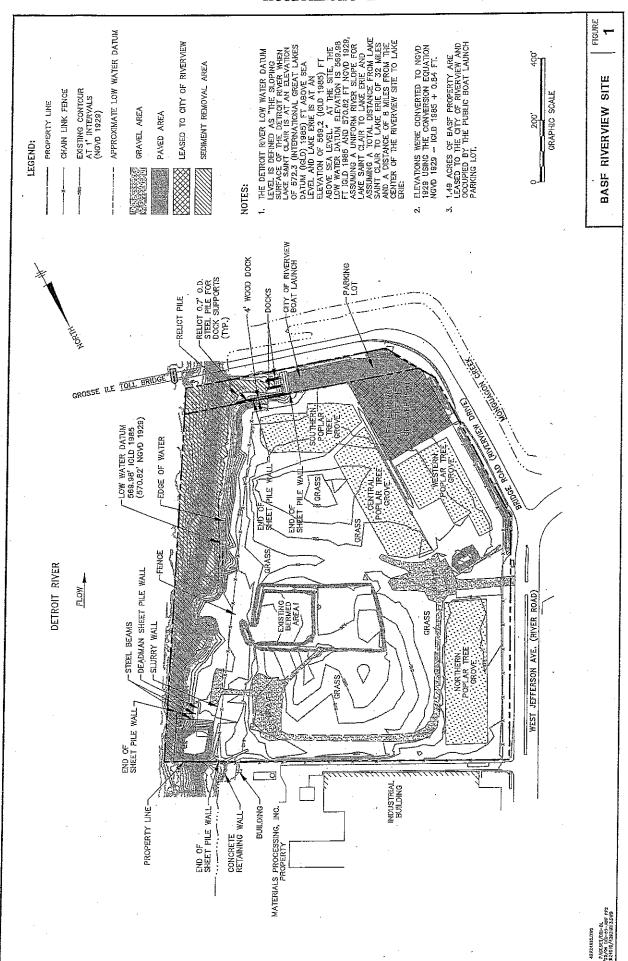
Nothing in this SOW, including Section IV (Corrective Response Activities and Contingency Actions for Non-Compliance Events), shall preclude the MDEQ from requiring modifications of this SOW or the IRA pursuant to Paragraph 6.10 of the Judgment.

Attachment D

Boat Launch Property Legal Description

LAND IN THE VILLAGE OF RIVERVIEW, COUNTY OF WAYNE, STATE OF MICHIGAN, TO-WIT: SITUATE AND BEING IN FRACTIONAL SECTION 5, TOWN 4 SOUTH, RANGE 11 EAST, TOWNSHIP OF MONGUAGON, KNOWN AND DESCRIBED AS: A STRIP OF LAND 85 FEET WIDE ON THE NORTHERLY SIDE OF BRIDGE ROAD (ALSO CALLED RIVERVIEW DRIVE) WHICH SAID RIVERVIEW DRIVE IS A HUNDRED FEET WIDE DESCRIBED AS FOLLOWS: BEGINNING AT THE POINT OF INTERSECTION OF THE NORTHERLY SIDE OF BRIDGE ROAD (100 FEET WIDE) AND THE UNITED STATES HARBOR LINE OF THE WESTERLY SHORE OF THE DETROIT RIVER, THENCE NORTH 31° 41′ 30.4″ EAST 87.35 FEET; THENCE NORTH 71° 37′ 10″ WEST 792.28 FEET; THENCE SOUTH 30° 21′ 20″ EAST 128.89 FEET; THENCE SOUTH 71° 37′ 10″ EAST 675.29 FEET TO THE POINT OF BEGINNING.

S: NR/cases/1999/BASF/Attachment D



Attachment F

UNITED STATES DISTRICT COURT EASTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION

UNITED STATES OF AMERICA,
Plaintiff,

CIVIL ACTION NO. 80-73699

MICHAEL A. COX, Attorney General for the State of Michigan, ex rel, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, and STEVEN CHESTER, Director of the Michigan Department of Environmental Quality,

Intervenor-Plaintiffs,

HONORABLE BARBARA HACKETT

V

BASF WYANDOTTE CORPORATION and FEDERAL MARINE TERMINALS, INC., Defendants.

STIPULATION AND ORDER TO VACATE THE 1984 CONSENT DECREE

- 1. On July 18, 1984 this Court entered a Consent Decree ("1984 Consent Decree"), attached hereto as Exhibit A, among the United States of America on behalf of the United States Environmental Protection Agency ("EPA"), the State of Michigan on behalf of The Michigan Department of Environmental Quality ("MDEQ"), successor agency to Intervenor- Plaintiff, Michigan Department of Natural Resources and BASF Corporation ("BASF")(collectively, "the Parties") that required certain response activities to be undertaken by BASF to address releases of hazardous substances at its property located at 18099 West Jefferson Avenue, Riverview, Michigan (the "Site").
- 2. MDEQ and EPA believe that the response activities set forth in the 1984 Consent Decree were not adequate to completely address the environmental conditions at the Site. In

2001, the MDEQ and EPA entered into a Memorandum of Agreement, designating the MDEQ as the lead agency for the Site to work with Defendant in developing a comprehensive supplemental remedy for the Site. MDEQ has negotiated a new Consent Judgment with BASF to address the environmental conditions at the Site.

- 3. MDEQ and BASF have reached agreement on the terms and conditions of a Consent Judgment and said Consent Judgment ("2006 Consent Judgment"), attached hereto as Exhibit B, has been filed and entered in Ingham County Circuit Court. The terms of the 2006 Consent Judgment provide that the parties thereto intend to seek the termination of the 1984 Consent Decree by this Court.
- 4. The undersigned Parties hereby stipulate that the 1984 Consent Decree be and hereby is vacated and further stipulate that all terms of the 1984 Consent Decree be and hereby are rendered null and void and without any legal effect as to any Party thereto.

IT IS SO ORDERED.

Date:	Honorable Barbara Hackett	
Approved as to form and substa	ınce:	
Signatures appear on the follow	ving three pages]	

Stipulation and Order to Vacate the 1984 Consent Decree

Kathleen L. Cavanaugh (P38006)
Assistant Attorney General
Attorney for Intervenor-Plaintiffs
Environment, Natural Resources
and Agriculture Division
P.O. Box 30755
Lansing, MI 48909

Stipulation and Order to Vacate the 1984 Consent Decree

August 7, 2006

Steven Nadeau (827787) for Defendant BASF Honigman Miller Schwartz & Cohn LLP 660 Woodward Ave Ste 2290 Detroit, MI 48226

Stipulation and Order to Vacate the 1984 Consent Decree

Francis J. Biros
for Plaintiff, United States of America on behalf of
the U. S. Environmental Protection Agency
Environment & Natural Resources Division
United States Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044

Attachment G

Leased Parcel Legal Description

PART OF THE S.W. 1/4 SECTION 5, T. 4. S., R. 11 E., CITY OF RIVERVIEW, WAYNE COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE INTERSECTION OF THE NORTH LINE OF SECTION 5, CITY OF RIVERVIEW, AND THE U.S. HARBOR LINE; THENCE S. 31° 41' 30.4" W. 3618.43 FEET ALONG SAID U.S. HARBOR LINE; THENCE N. 60° 54' 20" W. 1141.34 FEET (REC'D. AS 1142.46 FEET) TO THE EAST RIGHT OF WAY LINE OF WEST JEFFERSON AVENUE (106 FEET WIDE); THENCE ALONG THE EAST RIGHT OF WAY LINE OF WEST JEFFERSON AVENUE S. 28° 55' 40" W. 797.33 FEET (REC'D. AS 797.75 FEET); THENCE S. 00° 37' 40" E. 354.59 FEET ALONG THE EAST RIGHT OF WAY LINE OF RIVERVIEW DRIVE (86 FEET WIDE) TO THE POINT OF BEGINNING; PROCEEDING THENCE FROM SAID POINT OF BEGINNING N 89° 34' 52" E. 257.55 FEET; THENCE S. 00° 37' 40" E. 294.86 FEET; THENCE N. 71° 37' 10" W. 240.00 FEET; THENCE N 30° 21' 20" W. 61.78 FEET TO THE EAST LINE OF SAID RIVERVIEW DRIVE; THENCE N. 00° 37' 40" W. 163.98 FEET ALONG SAID EAST LINE TO THE POINT OF BEGINNING. PARCEL CONTAINS 1.469 ACRES, AND IS SUBJECT EASEMENTS, RIGHTS, AND RESTRICTIONS OF RECORD.