

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO

_____)	
UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	No. 3:12-cv-01404
)	
INEOS USA LLC,)	
)	
Defendant.)	
_____)	

CONSENT DECREE

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CONSENT DECREE

WHEREAS Plaintiff the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“EPA”), has filed a complaint against Defendant INEOS USA LLC (“INEOS”) concurrently with the lodging of this Consent Decree;

WHEREAS INEOS owns and operates a chemical manufacturing plant (the “Facility”) located at 1900 Fort Amanda Road, Lima, Ohio 45804;

WHEREAS the Complaint alleges that, at the Facility, INEOS violated Section 112 of the Clean Air Act (“CAA”), 42 U.S.C. § 7412, and the following implementing regulations: 40 C.F.R. Part 63, Subpart F (the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry); 40 C.F.R. Part 63, Subpart G (the National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater); 40 C.F.R. Part 63, Subpart H (the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks); 40 C.F.R. Part 60, Appendix A, Method 21; and 40 C.F.R. Part 63, Subpart JJJ (National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins);

WHEREAS the Complaint alleges that INEOS additionally violated the CAA by violating the federally enforceable Ohio State Implementation Plan (“Ohio SIP”), INEOS’s Permit-to-Install Numbered 03-9227, and INEOS’s Title V Permit No. 03-02-02-0015;

WHEREAS the Complaint alleges that INEOS violated Section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. § 9603(a), and Sections 304(a) and (b) of the Emergency Planning and Community Right-To-Know Act (“EPCRA”), 42 U.S.C. § 11004(a) and (b);

WHEREAS INEOS denies the allegations in the Complaint and does not admit any liability to the United States or any other person or entity arising out of the transactions or occurrences alleged in the Complaint and nothing in the Complaint, nor in this Consent Decree, nor in the execution and implementation of this Consent Decree shall be treated as an admission of any violation of federal or state statutes or regulations in any litigation or forum whatsoever, except that the terms of this Consent Decree, and INEOS's failure to comply with the terms and conditions thereof may be used by the United States in any action or dispute resolution proceeding to enforce the terms of this Consent Decree or as otherwise permitted by law, and INEOS may use the terms of this Consent Decree in any such action or proceeding;

WHEREAS INEOS represents that since 2006, it has undertaken various measures to improve the leak detection and repair ("LDAR") program at its Facility, including but not limited to, re-inventorying all equipment at the Facility subject to LDAR requirements, reconstituting the Facility's LDAR program, and prominently marking open-ended lines;

WHEREAS INEOS represents that since 2009, it has undertaken measures to reduce bypassing of a control device at the Facility known as the Absorber OffGas Incinerator ("AOGI");

WHEREAS the United States and INEOS ("Parties") recognize, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest;

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section I, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter pursuant to 28 U.S.C. §§ 1331, 1345, and 1355; Section 113(b) of the CAA, 42 U.S.C. § 7413(b); Sections 109(c) and 113(b) of CERCLA, 42 U.S.C. §§ 9609(c) and 9613(b); and Section 325(b)(3) and (c)(4) of EPCRA, 42 U.S.C. §§ 11045(b)(3) and (c)(4); and over the Parties. This Court has personal jurisdiction over INEOS, which does business in the State of Ohio and this District, pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b). Venue lies in this District pursuant to 28 U.S.C. §§ 1391 and 1395; Section 113(b) of the CAA, 42 U.S.C. 7413(b); Section 109(c) and 113(b) of CERCLA, 42 U.S.C. §§ 9609(c) and 9613(b); and Section 325(b)(3) and (c)(4) of EPCRA, 42 U.S.C. §§ 11045(b)(3) and (c)(4) because INEOS resides and is located in this judicial district and the violations alleged in the Complaint are alleged to have occurred in this judicial district. For purposes of this Decree, or any action to enforce this Decree, INEOS consents to this Court's jurisdiction over this Decree, over any action to enforce this Decree, and over INEOS. INEOS also consents to venue in this judicial district.

2. For purposes of this Consent Decree, INEOS does not contest that the Complaint states claims upon which relief may be granted pursuant to Section 113 of the CAA, 42 U.S.C. § 7413; Section 103(a) of CERCLA, 42 U.S.C. § 9603(a); and Sections 304(a) and (b) of EPCRA, 42 U.S.C. §§ 11004(a) and (b).

3. Notice of the commencement of this action has been given to the State of Ohio as required by Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

II. APPLICABILITY

4. The obligations of this Consent Decree apply to and are binding upon the United States and upon INEOS and any successors, assigns, and other entities or persons otherwise bound by law.

5. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of Paragraphs 5 or 6 or otherwise, shall relieve INEOS of its obligations to ensure that the terms of this Consent Decree are implemented unless and until:

a. The transferee agrees in writing to undertake the applicable obligations required by this Consent Decree to the Facility, and to intervene as a defendant in this action for the purpose of being bound by the applicable terms of this Consent Decree; and

b. The United States, after receiving information sufficient to demonstrate that the transferee has the technical and financial means to comply with the applicable obligations of this Consent Decree, consents in writing to substitute the transferee for INEOS with respect to such obligations; and

c. The Court approves such substitution.

6. By no less than thirty (30) days prior to the transfer of the ownership or operation of all or part of the Facility, INEOS shall provide a copy of this Consent Decree to the proposed transferee and also shall provide written notice of the prospective transfer, together with a copy of the proposed written agreement between INEOS and the prospective transferee, to EPA, the United States Attorney for the Northern District of Ohio, and the United States Department of Justice, in accordance with Section XIV of this Decree (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this Paragraph constitutes a violation of this Decree.

7. INEOS shall provide a copy of all relevant portions of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree. The foregoing requirement may be satisfied by hard copy, electronic copy, or by providing on-line access with notice to the affected personnel. INEOS shall condition any such contract upon performance of the work in conformity with the applicable terms of this Consent Decree.

8. In any action to enforce this Consent Decree, INEOS shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

9. Terms used in this Consent Decree that are defined in the CAA, CERCLA, and EPCRA or in federal and state regulations promulgated pursuant to the CAA, CERCLA, and EPCRA shall have the meaning assigned to them in the CAA, CERCLA, and EPCRA or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. "AOGI" shall mean the Absorber Offgas Incinerator located at the Facility.
- b. "CAP" shall mean the Corrective Action Plan described in Paragraph 49.c of this Consent Decree.
- c. "Complaint" shall mean the Complaint filed by the United States in this action.

d. “Consent Decree” or “Decree” shall mean this Consent Decree and all appendices attached hereto, but in the event of any conflict between the text of this Consent Decree and any Appendix, the text of this Consent Decree shall control.

e. “Covered Equipment” shall mean all Covered Types of Equipment in all Covered Process Units.

f. “Covered Process Units” shall mean any process unit subject to the equipment leak provisions of 40 C.F.R. Part 63, Subpart JJJ or Subpart H, which at the time of lodging of the Consent Decree includes only the Acetonitrile, Acrylonitrile, and Barex Process Units.

g. “Covered Types of Equipment” shall mean all valves (except pressure relief valves), connectors, pumps, agitators, and OELs in light liquid or gas/vapor service that are regulated under any “equipment leak” provisions of 40 CFR Part 61 or 63 or applicable state or local LDAR regulations.

h. “Date of Lodging of this Consent Decree” or “Date of Lodging” shall mean the date that the United States files a “Notice of Lodging” of this Consent Decree with the Clerk of this Court for the purpose of providing notice and comment to the public.

i. “Day,” for purposes of requirements uniquely imposed by the ELP and not by any applicable LDAR provisions, shall mean a calendar day. In computing any period of time under this Consent Decree for submittal of reports, where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period shall include the next day that is not a Saturday, Sunday, or federal or state holiday. For all other purposes, “day” shall have the meaning provided in the applicable LDAR provisions.

j. “DOR” shall mean Delay of Repair.

- k. “Effective Date” shall have the meaning given in Section XV (Effective Date).
- l. “Enhanced LDAR Program” or “ELP” shall mean the provisions in this Consent Decree set forth at Paragraphs 13–51 and 64.a–64.h of this Decree.
- m. “EPA” shall mean the United States Environmental Protection Agency and any of its successor departments or agencies.
- n. “Facility” or “Lima Facility” shall mean the contiguous manufacturing site owned and operated by INEOS located at 1900 Fort Amanda Road, Lima, Ohio 45804.
- o. “First LDAR Audit Report” shall mean the report that INEOS must submit to EPA pursuant to Paragraph 49.
- p. “INEOS” shall mean INEOS USA LLC only.
- q. “LDAR” or “Leak Detection and Repair” shall mean the leak detection and repair activities required by any “equipment leak” provisions of 40 CFR Part 61 or 63. LDAR also shall mean applicable state or local equipment leak provisions that require the use of Method 21 to monitor for equipment leaks and also require the repair of leaks discovered through such monitoring.
- r. “LDAR Audit Commencement Date” or “Commencement of an LDAR Audit” shall mean the first day of the on-site inspection that accompanies an LDAR audit.
- s. “LDAR Audit Completion Date” or “Completion of an LDAR Audit” shall mean one hundred twenty (120) calendar Days after the LDAR Audit Commencement Date.
- t. “LDAR Personnel” shall mean all INEOS contractors and employees who perform LDAR monitoring, LDAR data input, maintenance of LDAR monitoring devices, leak repairs on equipment subject to LDAR, and/or any other field duties generated by LDAR

requirements. The term “LDAR Personnel” does not include a contractor that performs repair or maintenance activities on LDAR equipment or LDAR monitoring devices at its off-site facility, such as an off-site valve shop or monitoring device repair shop.

u. “Low-Emissions Packing” or “Low-E Packing” shall mean valve packing technology for which a manufacturer has issued either: (i) a written guarantee that the valve packing technology will not leak above 100 ppm for five years; or (ii) a written guarantee, certification or equivalent documentation that the valve packing technology has been tested pursuant to generally-accepted good engineering practices and has been found to be leaking at no greater than 100 ppm.

v. “Low-Emissions Valve” or “Low-E Valve” shall mean valves for which a manufacturer has issued either: (i) a written guarantee that the valve will not leak above 100 parts per million (ppm) for five years; or (ii) a written guarantee, certification or equivalent documentation that the valve has been tested pursuant to generally-accepted good engineering practices and has been found to be leaking at no greater than 100 ppm.

w. “Maintenance Shutdown” shall mean a shutdown of a Covered Process Unit that either is done for the purpose of scheduled maintenance or lasts longer than fourteen (14) calendar days.

x. “Method 21” shall mean the test method found at 40 C.F.R. Part 60, Appendix A, Method 21.

y. “Month”:

i. Whenever this Consent Decree requires compliance “within” or “by no later than” a certain number of “Months” after a specific date or event, the compliance obligation commences on the anniversary of the numerical date of that specific date or event. For

example, if compliance is required by no later than six Months after the Effective Date of this Decree, and if the Effective Date of this Decree is June 23, 2012, then the compliance obligation commences on December 23, 2012.

ii. “Month” or “monthly,” for any purpose other than that identified in Subparagraph 9.y.i, shall mean calendar month, except as otherwise provided in applicable LDAR provisions.

z. “OEL” or “Open-Ended Line” shall mean any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.

aa. “OELCD” shall mean an open-ended valve or line at the closure device.

bb. “Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral.

cc. “Parties” shall mean the United States and INEOS.

dd. “Repair Verification Monitoring” shall mean the utilization of monitoring (or other method that indicates the relative size of the leak) within the next 24 hours after each attempt at repair of a leaking piece of equipment in order to verify that the leak has been eliminated or is below the applicable leak definition in this ELP.

ee. “Screening Value” shall mean the highest emission level that is recorded at each piece of equipment as it is monitored in compliance with Method 21.

ff. “Section” shall mean a portion of this Consent Decree that has a heading identified by an upper case Roman numeral.

gg. “Subparagraph” shall mean a portion of a Paragraph of this Consent Decree that is identified by a sequential lower-case letter or by a lower-case Roman numeral.

hh. “Subsection” shall mean a portion of a Section of this Consent Decree that has a heading identified by a capital letter.

ii. “United States” shall mean the United States of America, acting on behalf of EPA.

jj. “Valve,” as used in the ELP, shall not include pressure relief valves.

IV. CIVIL PENALTY

10. By no later than thirty (30) days after the Effective Date of this Consent Decree, INEOS shall pay the sum of One Million, One-Hundred, Fifty Thousand Dollars (\$1,150,000) as a civil penalty. INEOS shall pay the civil penalty by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice in accordance with written instructions to be provided to INEOS, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney’s Office for the Northern District of Ohio, Suite 308, Four Seagate Third Floor, Toledo, OH 43604. At the time of payment, INEOS shall send a copy of the EFT authorization form, the EFT transaction record, and a transmittal letter: (i) to the United States in the manner set forth in Section XIV of this Decree (Notices), (ii) by email to _____ and (iii) by mail to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

The transmittal letter shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United States v. INEOS USA LLC, and shall reference the civil action number, USAO File Number 2008V00778, and DOJ case number 90-5-2-1-08875/1.

11. If any portion of the civil penalty due to the United States is not paid when due, INEOS shall pay interest on the amount past due, accruing from the Effective Date through the

date of payment, at the rate specified in 28 U.S.C. §1961. Interest payment under this Paragraph shall be in addition to any stipulated penalty due.

12. INEOS shall not deduct any penalties paid under this Decree pursuant to this Section or Section VIII (Stipulated Penalties) in calculating its federal income tax.

V. COMPLIANCE REQUIREMENTS FOR LDAR

A. Applicability of the Enhanced LDAR Program

13. The requirements of this ELP shall apply to all Covered Equipment and the requirements of Paragraphs 14 and 50 shall apply to all equipment at the Facility that is regulated under LDAR. The requirements of this ELP are in addition to, and not in lieu of, the requirements of any federal, state, or local LDAR regulation that may be applicable to a piece of Covered Equipment.

B. Facility-Wide LDAR Program Plan

14. By no later than three (3) Months after the Effective Date of this Consent Decree, INEOS shall develop a written facility-wide LDAR Program Plan that describes: (i) its facility-wide LDAR program (e.g., applicability of regulations to process units and/or specific equipment; leak definitions; monitoring frequencies); (ii) a tracking program (e.g., Management of Change) that requires new pieces of equipment added to the Facility for any reason to be integrated into the LDAR program and that removes from the LDAR program pieces of equipment that are taken out of service; (iii) the roles and responsibilities of all employee and contractor personnel assigned to LDAR functions at the Facility; (iv) a statement of how the number of personnel dedicated to LDAR functions is sufficient to satisfy the requirements of the LDAR program; and (v) how the Facility plans to implement this ELP. INEOS shall review this document on an

annual basis and update it as needed by no later than January 31 (for the prior year), beginning January 31, 2013.

15. For regulatory reporting purposes, including Title V permit deviation reporting, INEOS may report leak rates for valves, connectors, pumps, agitators, and open-ended lines in accordance with the applicable regulatory leak definitions under the LDAR Regulations, rather than the lower internal leak definitions defined herein.

C. Monitoring Frequency and Equipment

16. For pumps and agitators, by no later than seven (7) Days after the Effective Date of the Consent Decree; for valves and open-ended lines, by no later than the second full calendar quarter after the Effective Date; and for connectors, by no later than one year after the Effective Date, INEOS shall comply with the following periodic monitoring frequencies unless: (i) more frequent monitoring is required by federal, state, or local laws or regulations; or (ii) the relevant Covered Process Unit has been permanently shut down:

- a. Valves – Quarterly
- b. Connectors – Annually
- c. Pumps/Agitators – Monthly
- d. Open-Ended Lines – Quarterly (Monitoring will be done at the closure device; if the closure device is a valve, monitoring will be done in the same manner as any other valve, but also shall include monitoring at the end of the valve or line that is open to the atmosphere; if the closure device is a connector, then the monitoring must be done quarterly pursuant to Subparagraph 16.d, not annually pursuant to Subparagraph 16.b.)

For compliance with LDAR regulations, OEL monitoring results shall not be included in calculating the leak rate for any process unit or the facility. Monitoring shall not be required for pumps and agitators that are seal-less or that are equipped with a dual mechanical seal system that complies with the requirements of 40 C.F.R. § 63.163(e). Compliance with the monitoring

frequencies in this Paragraph 16 is not required when a specific, applicable LDAR provision excludes or exempts, fully or partially, monitoring at a periodic frequency (*e.g.*, an exemption for equipment that is designated as unsafe-to-monitor or difficult-to-monitor or an exemption for pumps that have no externally actuated shaft), provided that INEOS satisfies all applicable conditions and requirements for the exclusion or exemption set forth in the regulation.

17. Equipment that Has Been Replaced, Repacked or Improved pursuant to Subsection V.G. For equipment that has been replaced, repacked, or improved pursuant to Subsection V.G, INEOS may monitor such equipment at the frequency required by the most stringent regulation that applies to the piece of equipment. If any such piece of equipment is found to have a Screening Value above the action levels in Table 1 of Subsection V.D, INEOS shall monitor that piece of equipment monthly until the piece of equipment shows no leaks above the action levels in Table 1 of Subsection V.D for twelve consecutive months, at which time INEOS may commence monitoring at the frequency for that type of equipment set forth in either Paragraph 16 or Subparagraph 18.a.

18. Alternative Monitoring Frequencies for Valves, Connectors, and Open-Ended Lines after Two (2) Years. At any time after two (2) years of monitoring valves, open-ended lines, and connectors pursuant to the requirements of Paragraph 16, INEOS may elect to comply with the monitoring requirements set forth in this Paragraph by notifying EPA no later than sixty (60) days prior to changing to the monitoring frequency specified under this Paragraph. INEOS may elect to comply with the monitoring requirements of this Paragraph at one or more than one Covered Process Unit but may not make this election for anything less than all pieces of the same type of Covered Equipment (*i.e.*, valves, connectors or open-ended lines) in one entire Covered Process Unit. If INEOS elects to comply with the monitoring requirements of this Paragraph 18,

INEOS shall comply with the requirements of both Subparagraphs 18.a and 18.b; INEOS cannot elect to comply with Subparagraph 18.a and not 18.b.

- a. For valves, connectors, and open-ended lines that have not leaked at any time for at least two (2) consecutive years of monitoring. For valves, connectors, and open-ended lines that have not leaked at any time for at least the two (2) years prior to electing this alternative, INEOS shall monitor valves and open-ended lines one time per year and shall monitor connectors one time every two (2) years. If any leaks are detected during this alternative monitoring schedule or during an LDAR audit or a federal, state, or local audit or inspection, INEOS shall immediately start monitoring the leaking components pursuant to the requirements of Subparagraph 18.b.
- b. For valves, connectors, and open-ended lines that have leaked at any time in the prior two (2) years of monitoring. For valves, connectors, and open-ended lines that have leaked at any time in the prior two (2) years of monitoring, INEOS shall monitor each piece of equipment monthly until the piece of equipment shows no leaks for twelve consecutive months, at which time INEOS may commence monitoring at the frequency for that type of equipment set forth in Subparagraph 18.a.

19. By no later than three (3) Months after the Effective Date of this Consent Decree for all Covered Equipment except for connectors, and by no later than four (4) Months after the Effective Date of this Consent Decree for connectors, INEOS shall comply with Method 21 in performing LDAR monitoring, using an instrument attached to a data logger, or equivalent equipment, which directly electronically records the Screening Value detected at each piece of equipment, the date and time that each Screening Value is taken, and the identification numbers of the monitoring instrument and technician. INEOS shall transfer this monitoring data to an electronic database on at least a weekly basis for recordkeeping purposes.

20. If, during monitoring in the field, a piece of Covered Equipment is discovered that is not listed in the data logger, INEOS is permitted to monitor the piece of Covered Equipment and record, by any means available, the Screening Value, the date and time of the Screening Value, and the identification number of the technician. In such an instance, the failure to initially record the

information electronically, in the data logger, does not constitute a violation of this Paragraph's requirement to record the required information electronically, provided that INEOS, as soon as possible, but no later than twenty (20) days thereafter, adds the piece of Covered Equipment and the information regarding the monitoring event to the LDAR database.

21. INEOS shall conduct all calibrations of LDAR monitoring equipment in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.

D. Leak Detection and Repair Action Levels

22. Action Levels

- a. By no later than three (3) Months after the Effective Date of this Consent Decree, for all leaks from Covered Equipment detected at or above the leak repair action levels listed in Table 1 for a specific equipment type, INEOS shall perform repairs in accordance with Paragraphs 24–25 and 27–29 of this ELP.

Table 1: Leak Repair Action Levels by Equipment Type

Equipment Type	Lower Leak Definition (ppm)
Valves	250
Connectors	250
Pumps (other than those handling polymerizing monomers)	500
Pumps handling polymerizing monomers	2000
Agitators	2000
OELs (at the Closure Device)	250

- b. For purposes of these lower leak definitions, INEOS may elect to adjust or not to adjust the monitoring instrument readings for background pursuant to any provisions of applicable LDAR requirements that address background adjustment, provided that INEOS complies with the requirements for doing so or not doing so.

- c. The 2000 ppm leak definition for agitators set forth in Table 1 does not apply to the following three side agitators in polymerizing monomer service in INEOS's Acrylonitrile Process Unit: (1) an agitator identified as of the Date of Lodging in INEOS's Equipment Maintenance Tracking System with the Number 033654 and with a location description of AGA-109B NESD of AMF-121B W; Prod Rundown Tnk; (2) an agitator identified as of the Date of Lodging in INEOS's Equipment Maintenance Tracking System with the Number 050893 and with a location description of AGA-109A NWSD of AMF-121A E; Product Rundown Tnk; and (3) an agitator identified as of the Date of Lodging in INEOS's Equipment Maintenance Tracking System with the Number 013252 and with a location description of AGA-109C NESD of AT K-003; Prod Rundown 3A Tank. Instead, the regulatory leak definition of 10,000 ppm shall apply to these three side agitators.
- d. The 2000 ppm leak definition for pumps handling polymerizing monomers set forth in Table 1 does not apply to two pumps located in the Acrylonitrile Process Unit identified as of the Date of Lodging in INEOS's Equipment Maintenance Tracking System with Numbers 050386 and 034130. Instead, the regulatory leak definition of 5,000 ppm shall apply to these two pumps.

23. By no later than three (3) Months after the Effective Date of the Consent Decree, for all Covered Equipment, at any time, including outside of periodic monitoring, that evidence of a potential leak is detected through audio, visual, or olfactory sensing, INEOS shall comply with all applicable regulations and, if repair is required thereunder, with Paragraphs 24–25 and 27–29 of this ELP. By no later than three (3) Months after the Effective Date of the Consent Decree, at any time, including outside of periodic monitoring, that evidence of a potential leak is detected through audio, visual, or olfactory sensing, INEOS shall comply with all applicable regulations for the following components when they are in heavy liquid service: valves, pumps, agitators, connectors, and OELCDs in heavy liquid service.

E. Repairs

24. Except as provided in Subparagraphs 34.d.i. and 37.f.i., by no later than five (5) days after recording a Screening Value at or above the leak repair action levels in Table 1, INEOS

shall perform a first attempt at repair. By no later than fifteen (15) days after detection, INEOS shall perform a final attempt at repair or may place the piece of equipment on the Delay of Repair list provided that INEOS has complied with all applicable regulations and with the requirements of Paragraphs 25, 27–29 and 31.

25. Except as provided in Subparagraphs 34.d.i. and 37.f.i., INEOS shall perform Repair Verification Monitoring.

26. Repair Attempt for Valves (other than Control Valves) with Screening Values greater than or equal to 100 ppm but less than 250 ppm. For any valve, excluding control valves, that has a Screening Value greater than or equal to 100 ppm but less than 250 ppm, INEOS shall make an initial attempt to repair the valve and eliminate the leak by no later than five (5) days after detecting the leak. Repair Verification Monitoring shall be performed to determine if the repair has been successful. If, upon Repair Verification Monitoring, the Screening Value is less than 250 ppm, then no further actions shall be required for that monitoring event for that valve. If, upon Repair Verification Monitoring, the Screening Value is greater than or equal to 250 ppm, then INEOS shall undertake the requirements for repair required by this Consent Decree (and all deadlines for such requirements shall be based on the date of the failed Repair Verification Monitoring), but INEOS shall not be required to replace or repack the valve pursuant to Subsection V.G.

27. Drill and Tap for Valves (other than Control Valves). For valves (other than control valves) with a Screening Value of 250 ppm or greater, when other repair attempts have proven ineffective and INEOS is not able to remove the leaking valve from service, INEOS shall attempt at least one drill-and-tap repair (with a second injection of an appropriate sealing material if the first injection is unsuccessful at repairing the leak) prior to placing the leaking valve on the

DOR list unless there is a major safety, mechanical, product quality, or environmental issue with repairing the valve using this method, in which case, INEOS shall document the reason(s) why any drill and tap repair was (were) not performed prior to placing any valve on the DOR list. INEOS is not required to use drill-and-tap when Subparagraph 34.d.i. applies.

28. If a drill-and-tap attempt can reasonably be completed within the fifteen-day repair period, INEOS shall complete the drill-and-tap attempt in that time period. If a drill-and-tap attempt cannot reasonably occur within the fifteen-day repair period (*e.g.*, if INEOS's drill-and-tap contractor is not local and must mobilize to the Facility), INEOS provisionally may place the valve on the DOR list pending attempting the drill-and-tap repair as expeditiously as practical. When a drill and tap repair is required under Paragraph 27, INEOS shall not take more than thirty (30) days from the initial monitoring to attempt a drill-and-tap repair. If drill-and-tap is successful, the valve shall be removed from the provisional DOR list. INEOS's provisional placement of a valve on the DOR list in accordance with this Paragraph, for any days between day 15 and day 30 in which INEOS is attempting a drill and tap repair does not violate the regulatory requirements relating to placement of components on the DOR list.

29. For each Screening Value at or above the leak repair action levels in Table 1, INEOS shall record the following information: the date of all repair attempts; the repair methods used during each repair attempt; the date, time, and Screening Values for all re-monitoring events; and, if relevant, the information required under Paragraph 27 and 31 for Covered Equipment placed on the DOR list.

30. Nothing in Paragraphs 24–29 prevents INEOS from taking a leaking piece of Covered Equipment temporarily or permanently out of service; provided however, that prior to placing the leaking piece of Covered Equipment back in service, INEOS must repair the leak or

must comply with the requirements of Subsection V.F (Delay of Repair) to place the piece of Covered Equipment on the DOR list.

F. Delay of Repair

31. By no later than three (3) Months after the Effective Date of this Consent Decree for all Covered Equipment placed on the DOR list, INEOS shall require the following:

- a. Sign-off from the manufacturing manager, plant manager, a corporate official responsible for environmental management and compliance, or a corporate official responsible for plant engineering management that:
(i) the piece of Covered Equipment is technically infeasible to repair without a process unit shutdown; or (ii) emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from DOR. Signoff shall not be required for pumps placed on DOR for the reasons set forth in 40 C.F.R. § 63.171(d);
- b. Periodic monitoring, at the frequency required for other pieces of Covered Equipment of that type in the process unit, of the Covered Equipment placed on the DOR list; and
- c. Compliance with Subparagraph 31.c.i, unless the requirements of Subsection V.G apply, in which case, INEOS shall comply with Subsection V.G as set forth in Subparagraph 31.c.ii.
 - i. Repairs:
 - (a) For each piece of Covered Equipment with a Screening Value at or above the regulatory leak repair action level, repair of the piece of Covered Equipment within the time frame required by the applicable LDAR regulation; and
 - (b) For each piece of Covered Equipment with a Screening Value between the leak repair action level in Table 1 and the regulatory leak repair action level, repair the piece of Covered Equipment during the first Maintenance Shutdown that follows the monitoring event that triggered the repair. INEOS shall repair as many leaking pieces of equipment as practicable during such Maintenance Shutdown; provided however, that INEOS may carry over repairs from any Maintenance Shutdown to the next Maintenance Shutdown if INEOS documents that it was not practicable to repair all leaking equipment during the preceding Maintenance Shutdown. Nothing in this Subparagraph 31.c.i.(b),

however, is intended to require INEOS to clear a process unit or part of a process unit of materials during a Maintenance Shutdown in order to undertake repairs if the Maintenance Shutdown results from an unplanned event and does not otherwise involve clearing the affected process unit or part of the affected process unit of materials. This Consent Decree shall not be subject to termination unless, by the date of INEOS's submission of a Request for Termination in accordance with Paragraph 114, INEOS shall have repaired all Covered Equipment that, six (6) Months prior to the submission of the Request for Termination, was on the DOR list; provided however, that unless either: (i) the United States agrees to INEOS' Request for Termination; or (ii) INEOS prevails in a dispute resolution proceeding with respect to its Request for Termination, INEOS shall continue to comply with the requirements of this Subparagraph 31.c.i.(b).

- ii. If applicable under Subsection V.G (Equipment Replacement, Repacking, and Improvement Programs), replace, repack, or improve the piece of Covered Equipment by the timeframes set forth in Subsection V.G.

G. Equipment Replacement, Repacking, and Improvement Program

32. Commencing no later than nine (9) Months after the Effective Date of this Consent Decree and continuing until termination, INEOS shall implement the program set forth in Paragraphs 33 to 38 to improve the emissions performance of the valves and connectors that are Covered Equipment in each Covered Process Unit.

33. Valves

- a. List of all Valves in the Covered Process Units. Within six months after the Effective Date of this Consent Decree, INEOS shall provide to EPA a list of tag numbers of all valves subject to this ELP in each Covered Process Unit that are in existence as of the Effective Date. The valves on this list shall be the "Existing Valves" for purposes of this Paragraph 33.
- b. Installing New Valves. Except as provided in Subparagraphs 33.b.i, 33.b.ii, or Paragraph 35, INEOS shall ensure that each new valve that it installs in any Covered Process Unit either is a Low-E Valve or is fitted with Low-E Packing. This requirement applies to entirely new valves that

are added to a Covered Process Unit and to Existing Valves that are replaced for any reason in a Covered Process Unit.

- i. Subparagraph 33.b shall not apply in emergencies or exigent circumstances requiring immediate installation or replacement of a valve where a Low-E Valve or Low-E Packing is not available on a timely basis. Any such instance shall be reported in the next ELP compliance status report.
- ii. Subparagraph 33.b shall not apply to valves that are installed temporarily for a short-term purpose and then removed (*e.g.*, valves connecting a portion of the Covered Process Unit to a testing device.)

34. Replacing or Repacking Existing Valves that Have Screening Values at or above 250 ppm with Low-E Valves or Low-E Packing.

- a. Existing Valves Required to Be Replaced or Repacked. Except as provided in Paragraph 35, for each Existing Valve in each Covered Process Unit that has a Screening Value at or above 250 ppm during any monitoring event, INEOS shall either replace or repack the Existing Valve with a Low-E Valve or Low-E Packing.
- b. Timing: If Replacing or Repacking Does Not Require a Process Unit Shutdown. If replacing or repacking does not require a process unit shutdown, INEOS shall replace or repack the Existing Valve by no later than thirty (30) days after the monitoring event that triggers the replacing or repacking requirement, unless INEOS complies with the following:
 - i. Prior to the deadline, INEOS must take all actions necessary to obtain the required valve or valve packing, including all necessary associated materials, as expeditiously as practical, and retain documentation of the actions taken and the date of each such action;
 - ii. If, despite INEOS's efforts to comply with Subparagraph 34.b.i, the required valve or valve packing, including all necessary associated materials, is not available in time to complete the installation within thirty (30) days, INEOS must take all reasonable actions to minimize emissions from the valve pending completion of the required replacing or repacking. Examples include:

- (a) Repair;
 - (b) More frequent monitoring, with additional repairs as needed; or
 - (c) Where practical, interim replacing or repacking of a valve with a valve that is not a Low-E Valve or with packing that is not Low-E Packing; and
 - iii. INEOS must promptly perform the required replacing or repacking after INEOS's receipt of the valve or valve packing, including all necessary associated materials.
- c. Timing: If Replacing or Repacking Requires a Process Unit Shutdown.

If replacing or repacking requires a process unit shutdown, INEOS shall replace or repack the Existing Valve during the first Maintenance Shutdown that follows the monitoring event that triggers the requirement to replace or repack the valve, unless INEOS documents that either: (i) insufficient time existed between the monitoring event and such first Maintenance Shutdown to enable INEOS to purchase and install the required valve or valve packing technology; and/or (ii) it was not practicable to replace or repack all valves during the first Maintenance Shutdown. In the first case, INEOS shall undertake the replacing or repacking at the next Maintenance Shutdown. In the second case, INEOS shall replace or repack as many Existing Valves as practicable during the first Maintenance Shutdown. In either case, INEOS may carry over replacements or repackings to a subsequent Maintenance Shutdown if INEOS documents that it was not practicable to conduct all pending replacements or repackings during the preceding Maintenance Shutdown. Nothing in this Subparagraph 34.c, however, is intended to require INEOS to clear a process unit or part of a process unit of materials or otherwise require INEOS to undertake replacements or repackings if the Maintenance Shutdown results from an unplanned event and does not otherwise involve clearing the affected process unit or part of the affected process unit of materials. This Consent Decree shall not be subject to termination unless, by the date of INEOS's submission of a Request for Termination in accordance with Paragraph 114, INEOS shall have replaced or repacked all Existing Valves that, six (6) Months prior to the submission of the Request for Termination, were required to be replaced or repacked; provided however, that unless either: (i) the United States agrees to INEOS' Request for Termination; or (ii) INEOS prevails in a dispute resolution proceeding with respect to its Request for Termination, INEOS shall continue to comply with the requirements of this Subparagraph 34.c.

- d. Actions Required Pending Replacings or Repackings Pursuant to Subparagraphs 34.a–c.
 - i. Actions Required Pursuant to Subsection V.E. INEOS shall not be required to comply with Subsection V.E pending replacing or repacking of a valve leaking below 500 ppm pursuant to Subparagraphs 34.a - c if INEOS completes the replacing or repacking by the date that is no later than thirty (30) days after detecting the leak. If INEOS does not complete the replacing or repacking within thirty (30) days, or if, at the time of the leak detection, INEOS reasonably can anticipate that it might not be able to complete the replacing or repacking within thirty (30) days, INEOS shall comply with all applicable requirements of Subsection V.E.
 - ii. Actions Required Pursuant to Applicable Regulations. For each Existing Valve that has a Screening Value at or above 500 ppm, INEOS shall comply with all applicable regulatory requirements, including repair and “delay of repair,” pending replacing or repacking pursuant to Subparagraphs 34.a–c.

35. Commercial Unavailability of a Low-E Valve or Certified Low Leaking Valve Packing Technology. INEOS shall not be required to utilize a Low-E Valve or Low-E Packing to replace or repack a valve if a Low-E Valve or Low-E Packing is commercially unavailable. Prior to claiming this commercial unavailability exemption, INEOS must contact a reasonable number of vendors of valves and obtain a written representation or equivalent documentation from each vendor that the particular valve that INEOS needs is commercially unavailable either as a Low-E Valve or with Low-E Packing. In the Compliance Status Reports due under Section VII (Reporting Requirements) of this Decree, INEOS shall: (i) identify each valve for which it could not comply with the requirement to replace or repack the valve with a Low-E Valve or Low-E Packing; (ii) identify the vendors it contacted to determine the unavailability of such a Valve or Packing Technology; and (iii) include the written representations or documentation that INEOS secured from each vendor regarding the unavailability.

36. Records of Low-E Valves and Low-E Packing. Prior to installing any Low-E Valves or Low-E Packing, or if not possible before installation, then as soon as possible after installation, INEOS shall secure from each manufacturer documentation that demonstrates that the proposed valve or packing technology meets the definition of “Low-E Valve” and/or “Low-E Packing.” INEOS shall retain that documentation for the duration of this Consent Decree and make it available upon request.

- a. “Low-E” Status Not Affected by Subsequent Leaks. If, during monitoring after installation, a Low-E Valve or a valve using Low-E Packing has a Screening Value at or above 250 ppm, the leak is not a violation of this Decree, does not invalidate the “Low-E” status or use of that type of valve or packing technology, and does not require replacing other, non-leaking valves or packing technology of the same type.
- b. Repairing Low-E Valves. If, during monitoring after installation, a Low-E Valve or a valve using Low-E Packing has a Screening Value at or above 250 ppm, Paragraphs 24–25 and 27–31 shall apply.
- c. Replacing or Repacking Low-E Valves. On any occasion when a Low-E Valve or a valve that utilizes Low-E Packing has a Screening Value at or above 250 ppm but below 500 ppm, INEOS shall not be required to replace or repack it. On any occasion when a Low-E Valve or a valve that utilizes Low-E Packing has a Screening Value at or above 500 ppm, INEOS shall replace or repack it pursuant to the requirements of Paragraph 34.

37. Connectors

- a. Connector Replacement and Improvement Descriptions. For purposes of this Paragraph 37, for each of the following types of connectors, the following type of replacement or improvement shall apply:

<u>Connector Type</u>	<u>Replacement or Improvement Description</u>
Flanged	Replacement or improvement of the gasket
Threaded	Replacement of the connector
Compression	Replacement of the connector

CamLock	Replacement or improvement of the gasket or replacement or improvement of the CamLock
Quick Connect	Replacement or improvement of the gasket, if applicable, or replacement of the connector if there is no gasket
Any type	Elimination where practical and feasible if INEOS so elects (<i>e.g.</i> , through welding, pipe replacement, etc.)

- b. In cases where replacement-in-kind is utilized as the method for replacing or improving a connector (*e.g.*, a Quick Connect replaces another Quick Connect), the provisions of Subparagraphs 37.b.i and 37.b.ii shall apply.
- i. If there are models or styles of a like-kind connector (*i.e.*, the same connector type) that are less likely to leak than the existing connector, and one or more of those models or styles are technically feasible to use (considering the service, operating conditions, and type of piping or tubing that the connector is in) and would not create a major safety, mechanical, product quality, regulatory or other issue, INEOS shall select a like-kind connector from among such models or styles.
- ii. If Subparagraph 37.b.i does not apply, INEOS may install a like-kind connector (*i.e.*, the same connector type) that is the same model or style as the existing connector.
- c. Installing New Connectors. In installing any new connector in a Covered Process Unit, INEOS shall use best efforts to install a connector that is least likely to leak, using good engineering judgment, for the service and operating conditions that the connector is in.
- d. Trigger for Replacing or Improving Connectors. For each connector that, in any two of three consecutive monitoring periods has a Screening Value at or above 250 ppm, INEOS shall replace or improve the connector in accordance with the applicable replacement or improvement described in Subparagraph 37.a. INEOS shall use best efforts to install a replacement or improvement that will be the least likely to leak, using good engineering judgment, for the service and operating conditions that the connector is in.
- e. Timing. If the replacement or improvement does not require a process unit shutdown, INEOS shall undertake the replacement or improvement by no later than thirty (30) days after the monitoring event that triggers the replacement or improvement requirement. If the replacement or

improvement requires a process unit shutdown, INEOS shall undertake the replacement or improvement during the first Maintenance Shutdown that follows the monitoring event that triggers the requirement to replace or improve the connector, unless INEOS documents that either (i) insufficient time existed between the monitoring event and the Maintenance Shutdown to enable INEOS to secure and install the replacement or improvement; and/or (ii) it was not practicable to replace or improve all connectors during the first Maintenance Shutdown. In the first case, INEOS shall undertake the replacement or improvement at the next Maintenance Shutdown. In the second case, INEOS shall replace or improve as many connectors as practicable during the first Maintenance Shutdown. In either case, INEOS may carry over replacements or improvements to a subsequent Maintenance Shutdown if INEOS documents that it was not practicable to conduct all pending replacements or improvements during the preceding Maintenance Shutdown. Nothing in this Subparagraph 37.c, however, is intended to require INEOS to clear a process unit or part of a process unit of materials or otherwise require INEOS to undertake replacements or improvements if the Maintenance Shutdown results from an unplanned event and does not otherwise involve clearing the affected process unit or part of the affected process unit of materials. This Consent Decree shall not be subject to termination unless, by the date of INEOS's submission of a Request for Termination in accordance with Paragraph 114, INEOS shall have replaced or improved all connectors that, six (6) Months prior to the submission of the Request for Termination, were required to be replaced or improved; provided however, that unless either: (i) the United States agrees to INEOS' Request for Termination; or (ii) INEOS prevails in a dispute resolution proceeding with respect to its Request for Termination, INEOS shall continue to comply with the requirements of this Subparagraph 37.e.

- f. Actions Required Pending Replacements or Improvements Pursuant to Subparagraphs 37.d–e.
- i. Actions Required Pursuant to Subsection V.E. INEOS shall not be required to comply with Subsection V.E pending replacement or improvement pursuant to Subparagraphs 37.d–e if INEOS completes the replacement or improvement by the date that is no later than thirty (30) days after detecting the leak. If INEOS does not complete the replacement or improvement within 30 days, or if, at the time of the leak detection, INEOS reasonably can anticipate that it might not be able to complete the replacement or improvement within thirty (30) days, INEOS shall comply with all applicable requirements of Subsection V.E.
- ii. Actions Required Pursuant to Applicable Regulations. For each connector that has a Screening Value at or above 500 ppm, INEOS shall comply with all applicable regulatory requirements, including

repair and “delay of repair,” pending replacement or improvement pursuant to Subparagraphs 37.d - e.

38. Nothing in Paragraphs 33–37 requires INEOS to utilize any valve, valve packing technology, or connector that is not appropriate for its intended use in a Covered Process Unit.

39. Equipment Replacement/Improvement Information. In each Compliance Status Report due under Section VII (Reporting Requirements) of this Decree, INEOS shall include a separate section in the Report that: (i) describes the actions it took to comply with this Subsection V.G, including identifying each piece of equipment that was replaced, repacked, or improved; and (ii) identifies the schedule for any future replacements, repacking, or improvements.

H. Management of Change

40. Management of Change: Beginning no later than three (3) Months after the Effective Date of this Consent Decree, INEOS shall evaluate each valve, connector, pump, agitator, and OEL that is added to the Covered Process Units for any reason to determine if it is subject to LDAR requirements. If the component is subject to LDAR requirements, INEOS shall add the component to its LDAR program as soon as possible, but no later than twenty (20) days after the component is identified as being subject to LDAR. For each valve, connector, pump, agitator, and OEL that is subject to the LDAR program that is physically removed from a Covered Process Unit, INEOS shall remove the component from its LDAR program as soon as possible, but no later than twenty (20) days after the component is physically removed. These evaluations shall be a part of INEOS’s Management of Change protocol.

I. Training

41. By no later than nine (9) Months after the Effective Date of this Consent Decree, INEOS shall develop a training protocol (or, as applicable, require its contractor to develop a training protocol for the contractor's employees) and shall require all LDAR Personnel to complete training on all aspects of LDAR, including this ELP, that are relevant to the person's duties. Once per calendar year starting in the calendar year after completion of initial training, INEOS shall require refresher training with respect to each LDAR Personnel; provided however, that refresher training is not required if an individual's employment at the Facility ceases or if the individual no longer meets the definition of LDAR Personnel prior to the end of the calendar year. Beginning no later than the Effective Date of this Consent Decree and continuing until termination, INEOS shall require (or as applicable, its contractor shall require for the contractor's employees) new LDAR Personnel to be sufficiently trained prior to any field involvement (other than supervised involvement for purposes of training) in the LDAR program.

J. Quality Assurance ("QA")/Quality Control ("QC")

42. Daily Certification by Monitoring Technicians. Commencing by no later than three (3) Months after the Effective Date of this Consent Decree, on each day that monitoring occurs, at the end of such monitoring, INEOS shall require each monitoring technician to certify that the data collected represents the monitoring performed for that day by requiring the monitoring technician to sign a form that states:

On [insert date], I reviewed the monitoring data that I collected today and that to the best of my knowledge and belief, the data accurately represents the monitoring I performed today.

In lieu of a form, a log sheet or an electronic certification form may be used.

43. Commencing by no later than the first full calendar quarter after the Effective Date of this Consent Decree, during each calendar quarter, at unannounced times, an LDAR-trained employee of INEOS or an LDAR-trained contractor, who does not serve as an LDAR monitoring technician at the Facility on a routine basis, shall undertake the following no less than once per calendar quarter (Subparagraphs 43.a–e may be performed through electronic means):

- a. verify that equipment was reported to have been monitored at the appropriate frequency;
- b. verify that proper documentation and sign-offs have been recorded for all equipment placed on the shutdown or DOR list;
- c. confirm that repairs were reported to have been performed within the required timeframe;
- d. review monitoring data and equipment counts for feasibility (e.g., number of pieces of equipment monitored per Day), unusual trends, and apparent inconsistencies;
- e. verify that proper calibration records and monitoring instrument maintenance information are stored and maintained;
- f. verify that other LDAR program records are maintained as required; and
- g. observe in the field each LDAR monitoring technician who is conducting leak detection monitoring to confirm monitoring is being conducted as required.

INEOS shall correct any deficiencies detected or observed as soon as practicable. INEOS shall maintain a log that: (i) records the date and time that the reviews, verifications, and observations required by this Paragraph were undertaken; and (ii) describes the nature and timing of any corrective actions taken.

K. LDAR Audits and Corrective Action

44. INEOS shall conduct LDAR audits pursuant to the schedule in Paragraph 45 and the requirements of Paragraph 46. INEOS shall retain a third-party with experience in conducting

LDAR audits to conduct no less than the initial audit and follow-up audits every two (2) years until termination of the Consent Decree. To perform the third-party audit, INEOS shall select a different company than its regular LDAR contractor. At its discretion, in years in which INEOS is not required to retain a third-party auditor, INEOS may conduct the audit internally by using its own personnel, provided that the personnel INEOS uses are not employed at the facility being audited but rather are employed centrally or at one or more other INEOS facilities. All such internal audits must be conducted by personnel familiar with regulatory LDAR requirements and this ELP.

45. Until termination of this Consent Decree, INEOS shall undertake an LDAR audit at the Facility every twelve (12) Months in accordance with the following schedule. For the first LDAR audit at the Facility, the LDAR Audit Commencement Date shall be no later than three (3) Months after the Effective Date of this Consent Decree and the LDAR Audit Completion Date shall be no more than seven (7) Months after the Effective Date of this Consent Decree. For each subsequent LDAR audit, the LDAR Audit Completion Date shall occur within the same calendar quarter that the first LDAR Audit Completion Date occurred.

46. For each Covered Process Unit, each LDAR audit shall include: (i) reviewing compliance with all applicable LDAR regulations; (ii) reviewing and/or verifying the same items that are required to be reviewed and/or verified in Subparagraphs 43.a–f; (iii) reviewing whether any pieces of equipment that are required to be in the LDAR program are not included; and (iv) “comparative monitoring” as described in Paragraph 47. LDAR audits after the first audit also shall include reviewing the Facility’s compliance with this ELP.

47. Comparative Monitoring. Comparative monitoring during LDAR audits shall be undertaken as follows:

- a. Calculating a Comparative Monitoring Audit Leak Percentage. Covered Equipment shall be monitored to calculate a leak percentage for each Covered Process Unit broken down by equipment type (*i.e.*, valves, pumps, agitators, connectors, and OELCDs). The monitoring that takes place during the audit shall be called “comparative monitoring” and the leak percentages derived from the comparative monitoring shall be called the “Comparative Monitoring Audit Leak Percentages.” Until termination of this Consent Decree, INEOS shall conduct a comparative monitoring audit pursuant to this Paragraph of at least two (2) Covered Process Units during each LDAR audit. Each Covered Process Unit at the Facility that is not the subject of the current audit shall have a comparative monitoring audit at least once before a previously-audited Covered Process Unit is audited again. The first comparative monitoring audit shall include the Acetonitrile and Acrylonitrile Process Units. In undertaking comparative monitoring, INEOS shall not be required to monitor every component in the Covered Process Unit but shall comply with generally-accepted LDAR audit practices in determining the number of components to monitor.
- b. Calculating the Historic, Average Leak Percentage from Prior Periodic Monitoring Events. For the Covered Process Unit that is audited, the historic average leak percentage from prior monitoring events, broken down by equipment type (*i.e.*, valves, pumps, agitators, connectors, and OELCDs) shall be calculated. The following number of complete monitoring periods immediately preceding the comparative monitoring audit shall be used for this purpose: valves - 4 periods; pumps and agitators - 12 periods; connectors - 1 period; and open-ended lines - 4 periods.
- c. Calculating the Comparative Monitoring Leak Ratio. For each Covered Process Unit that is audited, broken down by equipment type (*i.e.*, valves, pumps, agitators, connectors, and OELCDs), the ratio of the comparative monitoring audit leak percentage from Paragraph 47.a to the historic average leak percentage from Paragraph 47.b shall be calculated. This ratio shall be called the “Comparative Monitoring Leak Ratio.” If a calculated ratio yields an infinite result, INEOS shall assume (for purposes of this calculation but not for any other purpose under this Consent Decree or under any applicable laws and regulations) one leaking piece of equipment was found in the process unit through its routine monitoring during the 12-month period before the audit, and the ratio shall be recalculated.
- d. In the first LDAR audit, INEOS shall not be required to undertake comparative monitoring on OELCDs or calculate a Comparative Monitoring Leak Ratio for OELCDs.

48. When More Frequent Periodic Monitoring is Required. If a comparative monitoring audit leak percentage calculated pursuant to Paragraph 47.a triggers a more frequent monitoring schedule under any applicable federal, state, or local law or regulation than the frequencies listed in Subsection V.C (Paragraph 16, 17, or 18) for the equipment type in that Covered Process Unit, INEOS shall monitor the affected type of equipment at the greater frequency unless and until less frequent monitoring is again allowed under the specific federal, state, or local law or regulation. At no time may INEOS monitor at intervals less frequently than those in the applicable Paragraph in Subsection V.C prior to termination of this Consent Decree.

49. First LDAR Audit Report.

a. By no later than eight (8) Months after the Effective Date of this Consent Decree, INEOS shall submit via email to the EPA email addresses in Section XIV (Notices) and via overnight mail to the street addresses in Section XIV (Notices), a report entitled “First LDAR Audit Report.” No extensions of this time requirement shall be granted. If any discrepancies exist between the electronic copy and the hard copy, the electronic copy shall be deemed the “First LDAR Audit Report.” No data or information of any kind (including but not limited to any document(s) that might be characterized as “Supplement,” “Addendum,” or “Attachment”) that is transmitted on any day after the end of the eighth (8th) Month after the Effective Date of this Consent Decree shall constitute any part of the First LDAR Audit Report. If INEOS does not email a First LDAR Audit Report by no later than eight (8) Months after the Effective Date of this Consent Decree, then nothing in any Report that may be submitted after that date shall serve as a defense to the various stipulated penalty subparagraphs of Paragraph 72 that reference the First LDAR Audit Report.

b. The First LDAR Audit Report shall include, but need not be limited to, the results of the audit of the items listed in Paragraph 46. The First LDAR Audit Report also shall include a Corrective Action Plan (“CAP”) if the audit identifies any deficiencies or if the Comparative Monitoring Leak Ratio calculated pursuant to Subparagraph 47.c is 3.0 or higher *and* the Comparative Monitoring Audit Leak Percentage calculated pursuant to Subparagraph 47.a is greater than or equal to 0.5 percent. If a CAP is required, it shall include the items in Subparagraph 49.c.

c. Requirements of a CAP.

- i. The CAP shall describe the actions that INEOS has taken or shall take to correct the deficiencies and/or the causes of a Comparative Monitoring Leak Ratio that is 3.0 or higher (but only if the Comparative Monitoring Audit Leak Percentage is at or above 0.5 percent);
- ii. For any corrective actions that have not been completed by the time of due date of the CAP, the CAP shall include a schedule by which those actions shall promptly be completed with a goal of completing each action within three (3) Months after the LDAR Audit Completion Date; and
- iii. For any corrective actions that are not expected to be completed within three (3) Months after the LDAR Audit Completion Date, the CAP shall explain why and shall propose a schedule for prompt completion of the action(s).

d. EPA Comment on CAP. EPA may submit comments on the CAP.

Except for good cause, EPA may not request INEOS to modify any action with the CAP that already has been completed or is in progress at the time of EPA’s comments. Within the date that is thirty (30) days after receipt of any comments from EPA, INEOS shall submit a reply. Disputes arising with respect to any aspect of a CAP shall be resolved in accordance with the dispute resolution provisions of this Decree.

50. Corrective Action Plans for Second and Subsequent Audits.

a. Preliminary CAP. For the second and subsequent LDAR audits at the Facility, by no later than thirty (30) days after each LDAR Audit Completion Date , INEOS shall develop a preliminary corrective action plan if the results of the LDAR audit identify any deficiencies or if the Comparative Monitoring Leak Ratio calculated pursuant to Subparagraph 47.c is 3.0 or higher *and* the Comparative Monitoring Audit Leak Percentage calculated pursuant to Subparagraph 47.a is greater than or equal to 0.5 percent. The Preliminary CAP shall comply with the requirements of Subparagraph 49.c.

b. Submissions of Final CAP to EPA. For the second and subsequent LDAR audits of the Facility, by no later than four (4) Months after the LDAR Audit Completion Date, INEOS shall submit the final CAP to EPA, together with a certification of the completion of corrective action(s). For any corrective actions requiring more than ninety (90) days to complete, INEOS shall include an explanation together with a proposed schedule for completion as expeditiously as practicable.

c. EPA Comment on CAP. EPA may submit comments on the CAP. Except for good cause, EPA may not request INEOS to modify any action with the CAP that already has been completed or is in progress at the time of EPA's comments. Within the date that is thirty (30) days after receipt of any comments from EPA, INEOS shall submit a reply. Disputes arising with respect to any aspect of a CAP shall be resolved in accordance with the dispute resolution provisions of this Decree.

L. Certification of Compliance

51. Within twelve (12) Months after the Effective Date of this Consent Decree, INEOS shall submit a certification to EPA that, to the signer's best knowledge and belief formed after

reasonable inquiry: (i) the Facility is in compliance with all applicable LDAR regulations and this ELP except for any items for which corrective action has yet to be completed pursuant to a CAP submitted with the First LDAR Audit Report as required by Subparagraphs 49.b and 49.c; (ii) INEOS has completed all corrective actions, if applicable, or is in the process of completing all corrective actions pursuant to a CAP; and (iii) all equipment at the Facility that is regulated under LDAR has been identified and included in the Facility's LDAR program. To the extent that INEOS cannot make the certification in all respects, it shall specifically identify any deviations from Items (i) - (iii).

M. Recordkeeping

52. INEOS shall keep all records required by this ELP, including each LDAR audit report, to document compliance with the requirements of this ELP for at least one year after termination of this Consent Decree. Upon request by EPA, INEOS shall make all such documents available to EPA and shall provide, in electronic format if so requested, all LDAR monitoring data generated during the life of this Consent Decree.

VI. COMPLIANCE REQUIREMENTS FOR CERCLA/EPCRA AND AOGI

A. CERCLA/EPCRA Requirements

53. INEOS shall comply with the requirements of Section 103(a) of CERCLA, 42 U.S.C. § 9603, and Section 304 of EPCRA, 42 U.S.C. § 11004 at the Facility.

54. Revised Spill/Release Reporting Policy. INEOS recently has revised the Facility's Spill/Release Reporting Policy. INEOS shall comply with the Revised Spill/Release Reporting Policy, which incorporates the following provisions:

- a. An emergency release notification form that includes:
- The date and time of the release;
 - The chemical(s) involved and the quantity(ies) released;
 - Telephone numbers for the National Response Center (“NRC”), the State Emergency Response Commission (“SERC”), the Local Emergency Planning Committee(s) (“LEPC(s)”), and the local fire department(s) of the area(s) likely to be affected by the release;
 - An area on the form to identify when (the dates and times) the following entities are orally notified of a reportable release: the NRC; the SERC, and the LEPC(s), and the local fire department(s);
 - A statement on the form that indicates that written follow-up reports must be sent to the SERC and the LEPC(s); and
 - An area on the form to include the date and time when knowledge of a reportable release is obtained by the Facility.
- b. A requirement to report reportable quantity releases, including during startup, shutdown, and malfunctions, immediately within the meaning of Section 103 of CERCLA, 42 U.S.C. § 9603(a) and Section 304 of EPCRA, 42 U.S.C. § 11004, upon knowledge of exceeding the reportable quantity.

55. Root Cause Analysis for Reportable Quantity Releases. For each reportable quantity release of a hazardous substance or extremely hazardous substance at the Facility, INEOS shall initiate a root cause analysis within forty-eight (48) hours of reporting the release and complete the analysis within thirty (30) Days of reporting the release. The root cause analysis shall include a description of the event or circumstances which gave rise to the release as well as a description of any corrective action(s) taken or to be taken. If the root cause analysis cannot be completed within thirty (30) Days or the identified corrective action(s) cannot be completed within two Months of reporting the release, INEOS shall provide notice, prior to the respective deadline(s) that INEOS cannot meet, to EPA pursuant to Section XIV (Notices) of the Consent Decree. The notice shall include a schedule for prompt completion of the root cause analysis

and/or corrective action. If INEOS provides this notice, the deadlines for completing the root cause analysis and/or the corrective action shall be extended to the dates INEOS provides in such notice.

56. Comprehensive Internal Review and Updating of CERCLA/EPCRA Training.

Within three (3) Months of the Effective Date of the Consent Decree, INEOS shall complete a comprehensive internal review of its training procedures to ensure that all personnel involved in carrying out INEOS's responsibilities to report releases at the Facility are adequately trained to maintain compliance with Section 103 of CERCLA, 42 U.S.C. § 9603(a), and Section 304 of EPCRA, 42 U.S.C. § 11004. INEOS shall identify any deficiencies discovered during this review, and any deficiencies noted in this review shall be corrected and the training procedures updated within four (4) Months of the Effective Date of the Consent Decree.

57. Annual CERCLA/EPCRA Training. Commencing in calendar year 2013 and continuing annually thereafter until termination of this Consent Decree, INEOS shall conduct annual training on the updated training procedures described in Paragraph 56 for all personnel involved in carrying out INEOS's responsibilities to report releases at the Facility. Additionally, any newly hired personnel or contractors involved in carrying out INEOS's responsibilities to report releases shall receive training prior to undertaking any such responsibilities.

58. CERCLA/EPCRA Audit. By no later than four (4) Months after the Effective Date of the Consent Decree, INEOS shall complete a comprehensive review of its compliance with CERCLA and EPCRA reporting requirements at the Facility to determine whether INEOS's procedures for detecting reportable releases under CERCLA Section 103 and EPCRA Section 304 are adequate to ensure timely and accurate reporting. The auditors conducting this internal review shall not be employed at the Lima Facility but can be employed at a different INEOS facility,

provided they are knowledgeable about the Lima Facility. A written report of the CERCLA/EPCRA review (“EPCRA Report”) shall be provided to EPA pursuant to Section XIV (Notices) within five (5) Months of the Effective Date of the Consent Decree.

59. INEOS shall submit the EPCRA Report from Paragraph 58 to James Entzminger, U.S. EPA, 77 West Jackson Boulevard (SC-5J), Chicago, IL 60604.

60. INEOS shall correct any inadequacies or discrepancies identified by the EPCRA Report within sixty (60) Days of completion of the EPCRA Report.

B. Requirements Related to AOGI Control of Emissions from Acrylonitrile Reactors

61. Recordkeeping. Each time INEOS vents to the atmosphere by bypassing the absorber of the Acrylonitrile Process Unit and/or the AOGI, INEOS shall maintain a record that includes the date, time, and duration of the bypass; the quantify of pollutants released as a result of the bypass; the actions taken to minimize the duration of the bypass; the root cause of the bypass; and the corrective actions taken or to be taken to minimize the likelihood of the recurrence of the root cause.

62. Comprehensive Internal Review and Updating of Training to Prevent Venting to the Atmosphere by Bypassing the Absorber of the Acrylonitrile Process Unit and/or the AOGI. By no later than four (4) Months after the Effective Date of the Consent Decree, INEOS shall complete a comprehensive internal review of its training procedures to ensure that all personnel involved in carrying out INEOS’s responsibilities to operate and/or monitor the reactors of the Acrylonitrile Process Unit and/or the absorber of the Acrylonitrile Process Unit and/or the AOGI are adequately trained to prevent venting to the atmosphere by bypassing the absorber and/or the AOGI and to ensure compliance with the CAA and all related permit requirements. INEOS shall identify any deficiencies discovered during this review, and any deficiencies noted in this review

shall be corrected and the training procedures updated within six (6) Months of the Effective Date of the Consent Decree.

63. Training to Prevent Venting to the Atmosphere by Bypassing. By no later than the end of calendar year 2013, INEOS shall have completed training on the updated training procedures described in Paragraph 62 for all personnel involved in carrying out INEOS's responsibilities to operate and/or monitor the Acrylonitrile Process Unit reactors and absorber, and/or the AOGI. Subsequently, INEOS shall undertake this training as part of each employee's three-year refresher training. Any newly hired personnel involved in carrying out INEOS's responsibilities to operate and/or monitor the Acrylonitrile Process Unit reactors and absorber, and/or the AOGI shall receive training prior to working with them.

VII. REPORTING REQUIREMENTS

64. Compliance Status Reports. On the dates and for the time periods set forth in Paragraph 65, INEOS shall submit to EPA, in the manner set forth in Section XIV (Notices) of the Consent Decree, a Compliance Status Report. The Compliance Status Report shall include the following information:

- a. The number of personnel assigned to LDAR functions at the Facility, excluding personnel whose functions involve the non-monitoring aspects of repairing leaks, and the approximate percentage of time each person dedicated to performing his/her LDAR functions;
- b. An identification and description of any non-compliance with the requirements of Section V (Compliance Requirements for LDAR) of this Consent Decree;
- c. An identification of any problems encountered in complying with the requirements of Section V (Compliance Requirements for LDAR) of this Consent Decree;
- d. The information required in Paragraph 39 of Subsection V.G of this Consent Decree;

- e. A description of any LDAR training required in Subsection V.I of this Consent Decree;
- f. Any deviations identified in the QA/QC performed under Subsection V.J of this Consent Decree, as well as any corrective actions taken under that Subsection;
- g. A summary of LDAR audit results including specifically identifying all alleged deficiencies;
- h. The status of all actions under any CAP that was submitted pursuant to Subsection V.K during the reporting period, unless the CAP was submitted less than one month before the Compliance Status Report;
- i. In each Compliance Status Report due after calendar year 2013, a certification that INEOS has conducted annual CERCLA/EPCRA training pursuant to Paragraph 57;
- j. In each Compliance Status Report due after calendar year 2013, a certification that INEOS has conducted the training required pursuant to Paragraph 63; and
- k. An identification of each bypass event to the atmosphere from the absorber of the Acrylonitrile Process Unit and/or AOGI that occurred during the reporting period for the Compliance Status Report including the date, time, and duration of the bypass; the quantity of pollutants released as a result of the bypass; the actions taken to minimize the duration of the bypass; the root cause of the bypass; and the corrective actions taken or to be taken to minimize the likelihood of the recurrence of the root cause.

65. Due Dates. The first Compliance Status Report shall be due thirty-one (31) days after the first full half-year after the Effective Date of this Consent Decree (*i.e.*, either: (i) January 31 of the year after the Effective Date, if the Effective Date is between January 1 and June 30 of the preceding year; or (ii) July 31 of the year after the Effective Date, if the Effective Date is between July 1 and December 31). The initial report shall cover the period between the Effective Date and the first full half year after the Effective Date (a “half year” runs between January 1 and June 30 and between July 1 and December 31). Until termination of this Decree,

each subsequent report will be due on the same date in the following year and shall cover the prior two half years (*i.e.*, either January 1 to December 31 or July 1 to June 30).

66. Whenever any violation of this Consent Decree or any other event affecting INEOS's performance under this Decree results in a reportable release of a hazardous substance within the meaning of CERCLA and EPCRA, INEOS shall notify U.S. EPA pursuant to Section XIV (Notices) of this Consent Decree orally or by electronic or facsimile transmission as soon as possible, but no later than twenty-four (24) hours after INEOS first knew of the violation or event. This procedure is in addition to the other reporting requirements in this Consent Decree.

67. Each compliance status report submitted under this Section shall be signed by the plant manager, a corporate official responsible for environmental management and compliance, or a corporate official responsible for plant engineering management, and shall include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

68. All Reports under this Consent Decree shall be submitted to EPA in the manner designated in Section XIV (Notices) of this Consent Decree.

69. The reporting requirements of this Consent Decree do not relieve INEOS of any reporting obligations required by the CAA, CERCLA, or EPCRA or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement. The reporting requirements of this Section are in addition to any other reports, plans or submissions required by other Sections of this Consent Decree.

70. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

VIII. STIPULATED PENALTIES

71. Failure to Pay Civil Penalty. If INEOS fails to pay any portion of the civil penalty required to be paid under Section IV of this Decree (Civil Penalty) when due, INEOS shall pay a stipulated penalty of \$ 2500 per day for each day that the payment is late. Late payment of the civil penalty and any accrued stipulated penalties shall be made in accordance with Paragraph 10.

72. Failure to Meet all Other Consent Decree Obligations. INEOS shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified in Table 2 below unless excused under Section IX (Force Majeure) or unless a specific subparagraph below provides an exception relating to failures identified in the First LDAR Audit Report.

Table 2

Violation	Stipulated Penalty								
72.a. Failure to timely develop a Facility-Wide LDAR Document as required by Paragraph 14 or failure to timely update the Document on an annual basis if needed pursuant to Paragraph 14	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Period of noncompliance</u></th> <th style="text-align: left;"><u>Penalty per day late</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 days</td> <td>\$ 300</td> </tr> <tr> <td>16 - 30 days</td> <td>\$ 400</td> </tr> <tr> <td>31 days or more</td> <td>\$ 500</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day late</u>	1 - 15 days	\$ 300	16 - 30 days	\$ 400	31 days or more	\$ 500
<u>Period of noncompliance</u>	<u>Penalty per day late</u>								
1 - 15 days	\$ 300								
16 - 30 days	\$ 400								
31 days or more	\$ 500								
72.b. Each failure to perform monitoring at the frequencies set forth in Paragraph 16 or, if applicable, Paragraphs 17 and 18, except for each failure specifically identified in the First LDAR Audit Report	\$100 per component per missed monitoring event, not to exceed \$25,000 per month per Covered Process Unit								

<p>72.c. Each failure to comply with Method 21 in performing LDAR monitoring, in violation of Paragraph 19, except for each failure specifically identified in the First LDAR Audit Report</p>	<table border="1"> <thead> <tr> <th>Monitoring frequency for the component</th> <th>Penalty per monitoring event per process unit</th> </tr> </thead> <tbody> <tr> <td>Every 2 years</td> <td>\$ 25,000</td> </tr> <tr> <td>Annual</td> <td>\$ 20,000</td> </tr> <tr> <td>Semi-Annual</td> <td>\$ 15,000</td> </tr> <tr> <td>Quarterly</td> <td>\$ 10,000</td> </tr> <tr> <td>Monthly</td> <td>\$ 5,000</td> </tr> </tbody> </table>	Monitoring frequency for the component	Penalty per monitoring event per process unit	Every 2 years	\$ 25,000	Annual	\$ 20,000	Semi-Annual	\$ 15,000	Quarterly	\$ 10,000	Monthly	\$ 5,000
Monitoring frequency for the component	Penalty per monitoring event per process unit												
Every 2 years	\$ 25,000												
Annual	\$ 20,000												
Semi-Annual	\$ 15,000												
Quarterly	\$ 10,000												
Monthly	\$ 5,000												
<p>72.d. (i) For each failure, except for each failure specifically identified in the First LDAR Audit Report, to use a monitoring device that is attached to a datalogger; and (ii) for each failure, during each monitoring event, except for each failure specifically identified in the First LDAR Audit Report, to directly electronically record the Screening Value, date, time, identification number of the monitoring instrument, and the identification of technician, in violation of these requirements of Paragraph 19</p>	<p>\$100 per failure per piece of equipment monitored</p>												
<p>72.e. Each failure, except for each failure specifically identified in the First LDAR Audit Report, to transfer monitoring data to an electronic database on at least a weekly basis, in violation of this requirement in Paragraph 19</p>	<p>\$150 per day for each day that the transfer is late</p>												
<p>72.f. Each failure, except for each failure specifically identified in the First LDAR Audit Report, to timely perform a first attempt at repair as required by Paragraph 24 or 26, unless not required to do so under Subparagraph 34.d.i or 37.f.i. For purposes of these stipulated penalties, the term “repair” includes the required remonitoring in Paragraph 25 after the repair attempt; the stipulated penalties in Subparagraph 72.h do not apply.</p>	<p>\$ 150 per day for each late day, not to exceed \$1500 per leak</p>												

<p>72.g. Each failure, except for each failure specifically identified in the First LDAR Audit Report, to timely perform a final attempt at repair as required by Paragraph 24, unless not required to do so under Subparagraph 34.d.i or 37.f.i. For purposes of these stipulated penalties, the term “repair” includes the required remonitoring in Paragraph 25 after the repair attempt; the stipulated penalties in Subparagraph 72.h do not apply.</p>	<table border="1"> <thead> <tr> <th>Equipment <u>type</u></th> <th>Penalty per Component <u>per day late</u></th> <th>Not to <u>Exceed</u></th> </tr> </thead> <tbody> <tr> <td>Valves, connectors</td> <td>\$ 300</td> <td>\$ 37,500</td> </tr> <tr> <td>Pumps, agitators</td> <td>\$ 1,200</td> <td>\$ 150,000</td> </tr> </tbody> </table>	Equipment <u>type</u>	Penalty per Component <u>per day late</u>	Not to <u>Exceed</u>	Valves, connectors	\$ 300	\$ 37,500	Pumps, agitators	\$ 1,200	\$ 150,000
Equipment <u>type</u>	Penalty per Component <u>per day late</u>	Not to <u>Exceed</u>								
Valves, connectors	\$ 300	\$ 37,500								
Pumps, agitators	\$ 1,200	\$ 150,000								
<p>72.h. Each failure, except for each failure specifically identified in the First LDAR Audit Report, to timely perform Repair Verification Monitoring as required by Paragraph 25 in circumstances where the first attempt to adjust, or otherwise alter, the piece of equipment to eliminate the leak was made within five (5) days and the final attempt to adjust, or otherwise alter, the piece of equipment to eliminate the leak was made within fifteen (15) days</p>	<table border="1"> <thead> <tr> <th>Equipment <u>type</u></th> <th>Penalty per Component <u>per day late</u></th> <th>Not to <u>Exceed</u></th> </tr> </thead> <tbody> <tr> <td>Valves, connectors</td> <td>\$ 150</td> <td>\$ 10,000</td> </tr> <tr> <td>Pumps, agitators</td> <td>\$ 600</td> <td>\$ 37,500</td> </tr> </tbody> </table>	Equipment <u>type</u>	Penalty per Component <u>per day late</u>	Not to <u>Exceed</u>	Valves, connectors	\$ 150	\$ 10,000	Pumps, agitators	\$ 600	\$ 37,500
Equipment <u>type</u>	Penalty per Component <u>per day late</u>	Not to <u>Exceed</u>								
Valves, connectors	\$ 150	\$ 10,000								
Pumps, agitators	\$ 600	\$ 37,500								
<p>72.i. Each failure to undertake the drill-and-tap method as required by Paragraphs 27-28, except for each failure specifically identified in the First LDAR Audit Report; provided however, that this exception from stipulated penalties for each failure identified in the First LDAR Audit Report shall be applicable only if INEOS undertakes the drill-and-tap prior to submitting the First LDAR Audit Report or pursuant to a schedule in the CAP in the First LDAR Audit report</p>	<table border="1"> <thead> <tr> <th>Period of <u>noncompliance</u></th> <th>Penalty per component per day <u>late</u></th> </tr> </thead> <tbody> <tr> <td>Between 1 and 15 days</td> <td>\$ 200</td> </tr> <tr> <td>Between 16 and 30 days</td> <td>\$ 350</td> </tr> <tr> <td>Over 30 days</td> <td>\$ 500 per day for each day over 30, not to exceed \$37,500</td> </tr> </tbody> </table>	Period of <u>noncompliance</u>	Penalty per component per day <u>late</u>	Between 1 and 15 days	\$ 200	Between 16 and 30 days	\$ 350	Over 30 days	\$ 500 per day for each day over 30, not to exceed \$37,500	
Period of <u>noncompliance</u>	Penalty per component per day <u>late</u>									
Between 1 and 15 days	\$ 200									
Between 16 and 30 days	\$ 350									
Over 30 days	\$ 500 per day for each day over 30, not to exceed \$37,500									
<p>72.j. Each failure to record the information required by Paragraph 29, except for each failure specifically identified in the First LDAR Audit Report</p>	<p>\$ 100 per component per item of missed information</p>									

<p>72.k. Each improper placement of a piece of Covered Equipment on the DOR list (i.e., placing a piece of Covered Equipment on the DOR list even though it is feasible to repair it without a process unit shutdown), except for each improper placement identified in the First LDAR Audit Report; provided however, that this exception from stipulated penalties for each improper placement identified in the First LDAR Audit Report shall be applicable only if INEOS removes the piece of Covered Equipment from the DOR list prior to submitting the First LDAR Audit Report</p>	<table border="1"> <thead> <tr> <th>Equipment Type</th> <th>Penalty per component per day on list</th> <th>Not to <u>exceed</u></th> </tr> </thead> <tbody> <tr> <td>Valve, connectors</td> <td>\$ 300</td> <td>\$50,000</td> </tr> <tr> <td>Pumps, Agitators</td> <td>\$1200</td> <td>\$200,000</td> </tr> </tbody> </table>	Equipment Type	Penalty per component per day on list	Not to <u>exceed</u>	Valve, connectors	\$ 300	\$50,000	Pumps, Agitators	\$1200	\$200,000
Equipment Type	Penalty per component per day on list	Not to <u>exceed</u>								
Valve, connectors	\$ 300	\$50,000								
Pumps, Agitators	\$1200	\$200,000								
<p>72.l. Each failure to comply with the requirement in Subparagraph 31.a that a relevant unit supervisor or person of similar authority sign off on placing a piece of Covered Equipment on the DOR list, except for each failure specifically identified in the First LDAR Audit Report</p>	<p>\$250 per piece of Covered Equipment</p>									
<p>72.m. Each failure to comply with the requirements of Subparagraph 31.c.(i), except for each failure specifically identified in the First LDAR Audit Report; provided however, that this exception from stipulated penalties for each failure identified in the First LDAR Audit Report shall be applicable only if INEOS undertakes the repair: (A) prior to submitting the First LDAR Audit Report; or (B) pursuant to a schedule in the CAP in the First LDAR Audit report</p>	<p>Refer to the applicable stipulated penalties in Subparagraphs 72.f and 72.g</p>									
<p>72.n. Each failure to comply with the requirements of Subparagraph 31.c.(ii), except for each failure specifically identified in the First LDAR Audit Report; provided however, that this exception from stipulated penalties for each failure identified in the First LDAR Audit Report shall be applicable only if INEOS undertakes the repair: (A) prior to submitting the First LDAR Audit Report; or (B) pursuant to a schedule in the CAP in the First LDAR Audit report</p>	<p>Refer to the applicable stipulated penalties in Subparagraphs 72.o – 72.t.</p>									

72.o. Each failure to install a Low-E Valve or a valve fitted with Low-E Packing when required to do so pursuant to Subparagraph 33.b	\$ 17,500 per failure, except as provided in Paragraph 73 below
72.p. Each failure, in violation of Subparagraph 34.b, to timely comply with the requirements relating to installing a Low-E Valve or Low-E Packing if a process unit shutdown is not required	\$500 per day per failure, not to exceed \$17,500, except as provided in Paragraph 73 below
72.q. Each failure, in violation of Subparagraph 34.c, to install a Low-E Valve or Low-E Packing when required to do so during the applicable Maintenance Shutdown	\$17,500 per failure, except as provided in Paragraph 73 below
72.r. Each failure, in violation of Subparagraph 37.c, to timely comply with the requirements relating to replacing or improving a connector for any new connector installation	\$10,000 per failure
72.s. Each failure, in violation of Subparagraph 37.e., to timely comply with the requirements relating to replacing or improving a connector if the replacement or improvement does not require a process unit shutdown	\$250 per day per failure, not to exceed \$10,000 per failure
72.t. Each failure, in violation of Subparagraph 37.e, to comply with the requirements relating to replacing or improving a connector if the replacement or improvement requires a process unit shutdown	\$10,000 per failure
72.u. Each failure to add a piece of Covered Equipment to the LDAR program when required to do so pursuant to the evaluation required by Paragraph 40 (MOC), except for each failure identified in the First LDAR Audit Report; provided however, that this exception from stipulated penalties for each failure identified in the First LDAR Audit Report shall be applicable only if INEOS adds the piece of Covered Equipment to its LDAR program prior to submitting the First LDAR Audit Report	\$ 300 per piece of Covered Equipment (plus an amount, if any, due under Paragraph 72.b for any missed monitoring event related to a component that should have been added to the LDAR Program but was not)

72.v. Each failure to remove a piece of Covered Equipment from the LDAR program when required to do so pursuant to Paragraph 40, except for each failure identified in the First LDAR Audit Report; provided however, that this exception from stipulated penalties for each failure identified in the First LDAR Audit Report shall be applicable only if INEOS removes the piece of Covered Equipment from its LDAR program prior to submitting the First LDAR Audit Report	\$ 150 per failure per piece of Covered Equipment								
72.w. Each failure to timely develop a training protocol as required by Paragraph 41	\$ 50 per day late								
72.x. Each failure to perform initial, refresher, or new personnel training as required by Paragraph 41	\$ 1000 per person per month late								
72.y. Each failure of a monitoring technician to complete the certification required in Paragraph 42, except for each failure identified in the First LDAR Audit Report	\$ 100 per failure per technician								
72.z. Each failure to perform any of the requirements relating to QA/QC in Paragraph 43, except for each failure identified in the First LDAR Audit Report	\$1000 per missed requirement per quarter								
72.aa. Each failure to conduct an LDAR audit in accordance with the schedule set forth in Paragraph 45.	<table border="1"> <thead> <tr> <th><u>Period of noncompliance</u></th> <th><u>Penalty per day</u></th> </tr> </thead> <tbody> <tr> <td>1 – 15 days</td> <td>\$300</td> </tr> <tr> <td>16 – 30 days</td> <td>\$400</td> </tr> <tr> <td>31 days or more</td> <td>\$500, not to exceed \$75,000 per audit</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day</u>	1 – 15 days	\$300	16 – 30 days	\$400	31 days or more	\$500, not to exceed \$75,000 per audit
<u>Period of noncompliance</u>	<u>Penalty per day</u>								
1 – 15 days	\$300								
16 – 30 days	\$400								
31 days or more	\$500, not to exceed \$75,000 per audit								
72.bb. For the first and third audits, each failure to use a third party; each use of a third party auditor that is not experienced in LDAR audits; and each use of INEOS's regular LDAR contractor to conduct the third party audit	\$25,000 per audit								
72.cc. For the second and fourth LDAR audits, each audit that does not comply with the requirements in Paragraph 44	\$10,000 per audit								

72.dd. Except for the requirement to undertake Comparative Monitoring, each failure to substantially comply with the LDAR audit requirements in Paragraph 46	\$100,000 per audit										
72.ee. Each failure to substantially comply with the Comparative Monitoring requirements of Paragraph 47	\$50,000 per audit										
72.ff. Each failure to timely submit a Corrective Action Plan that substantially conforms to the requirements of Paragraph 49	<table border="0"> <thead> <tr> <th><u>Period of noncompliance</u></th> <th><u>Penalty per day per violation</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 days</td> <td>\$ 100</td> </tr> <tr> <td>16 - 30 days</td> <td>\$ 250</td> </tr> <tr> <td>31 days or more</td> <td>\$ 500</td> </tr> <tr> <td colspan="2">Not to exceed \$75,000 per audit</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>	1 - 15 days	\$ 100	16 - 30 days	\$ 250	31 days or more	\$ 500	Not to exceed \$75,000 per audit	
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1 - 15 days	\$ 100										
16 - 30 days	\$ 250										
31 days or more	\$ 500										
Not to exceed \$75,000 per audit											
72.gg. Each failure to implement a corrective action within three months after the LDAR Audit Completion Date or pursuant to the schedule that INEOS must propose pursuant to Subparagraph 49.b if the corrective action cannot be completed in three months or pursuant to an EPA-approved revised schedule pursuant to Subparagraph 49.c	<table border="0"> <thead> <tr> <th><u>Period of noncompliance</u></th> <th><u>Penalty per day per violation</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 days</td> <td>\$ 500</td> </tr> <tr> <td>16 - 30 days</td> <td>\$ 750</td> </tr> <tr> <td>31 days or more</td> <td>\$1000</td> </tr> <tr> <td colspan="2">Not to exceed \$150,000 per audit</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>	1 - 15 days	\$ 500	16 - 30 days	\$ 750	31 days or more	\$1000	Not to exceed \$150,000 per audit	
<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>										
1 - 15 days	\$ 500										
16 - 30 days	\$ 750										
31 days or more	\$1000										
Not to exceed \$150,000 per audit											
72.hh. Each failure to timely submit a Certification of Compliance that substantially conforms to the requirements of Paragraph 50	<table border="0"> <thead> <tr> <th><u>Period of noncompliance</u></th> <th><u>Penalty per day per violation</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 days</td> <td>\$ 100</td> </tr> <tr> <td>16 - 30 days</td> <td>\$ 250</td> </tr> <tr> <td>31 days or more</td> <td>\$ 500</td> </tr> <tr> <td colspan="2">Not to exceed \$50,000</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>	1 - 15 days	\$ 100	16 - 30 days	\$ 250	31 days or more	\$ 500	Not to exceed \$50,000	
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1 - 15 days	\$ 100										
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31 days or more	\$ 500										
Not to exceed \$50,000											
72.ii. Each failure to timely comply with the requirements of Section VI (Compliance Requirements for CERCLA/EPCRA and AOGI)	<table border="0"> <thead> <tr> <th><u>Period of noncompliance</u></th> <th><u>Penalty per day per violation</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 days</td> <td>\$ 400</td> </tr> <tr> <td>16 - 30 days</td> <td>\$ 750</td> </tr> <tr> <td>31 days or more</td> <td>\$ 2000</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>	1 - 15 days	\$ 400	16 - 30 days	\$ 750	31 days or more	\$ 2000		
<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>										
1 - 15 days	\$ 400										
16 - 30 days	\$ 750										
31 days or more	\$ 2000										
72.jj. Each failure to substantially comply with any recordkeeping, submission, or reporting requirement in Sections V, VI, and VII not specifically identified above in this Table 2	<table border="0"> <thead> <tr> <th><u>Period of noncompliance</u></th> <th><u>Penalty per day per violation</u></th> </tr> </thead> <tbody> <tr> <td>1 - 15 days</td> <td>\$ 100</td> </tr> <tr> <td>16 - 30 days</td> <td>\$ 250</td> </tr> <tr> <td>31 days or more</td> <td>\$ 500</td> </tr> </tbody> </table>	<u>Period of noncompliance</u>	<u>Penalty per day per violation</u>	1 - 15 days	\$ 100	16 - 30 days	\$ 250	31 days or more	\$ 500		
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31 days or more	\$ 500										

73. Stipulated Penalties in Lieu of those in Subparagraphs 72.o, 72.p, 72.q.

- a. For purposes of this Paragraph, the term “Non-Compliant Valve” means a valve that is either: (i) not a Low-E Valve; or (ii) not fitted with Low-E Packing. The term “Compliant Valve” means a valve that is either: (i) a Low-E Valve; or (ii) fitted with Low-E Packing.
- b. The stipulated penalties in Subparagraph 73.c are to be used instead of those in Subparagraphs 72.o, 72.p, or 72.q when all of the following requirements are met:
 - i. INEOS, and not a government agency, discovers the failure involved;
 - ii. Following discovery, INEOS promptly reports the failure to EPA;
 - iii. In the report, INEOS sets forth a schedule for promptly replacing the Non-Compliant Valve with a Compliant Valve; provided however, that INEOS shall not be required to undertake an unscheduled shutdown of the affected Covered Process Unit in proposing the schedule unless INEOS so chooses;
 - iv. INEOS monitors the Non-Compliant Valve once a month from the time of its discovery until the valve is replaced with a Compliant Valve and no Screening Values above 100 ppm are recorded;
 - v. INEOS replaces the Non-Compliant Valve with a Compliant Valve in accordance with the schedule set forth in 73.b.iii; and
 - vi. INEOS demonstrates that in good faith it intended to install a Compliant Valve but inadvertently failed to do so.
- c. The following stipulated penalties shall apply under the circumstances in Paragraph 73:
 - i. In lieu of the penalty in Subparagraph 72.o, \$2000 per failure.
 - ii. In lieu of the penalty in Subparagraph 72.p, \$50 per day per failure, not to exceed \$2000
 - iii. In lieu of the penalty in Subparagraph 72.q, \$2000 per failure.

74. Waiver of Payment. The United States may, in its unreviewable discretion, reduce or waive payment of stipulated penalties otherwise due to it under this Consent Decree. Nothing

in this Paragraph, however, is intended to prohibit INEOS from invoking dispute resolution if United States, even if it reduces its stipulated penalty demand, nonetheless still seeks stipulated penalties.

75. Demand for Stipulated Penalties. A written demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates; the stipulated penalty amount (as can be best estimated) that the United States is demanding for each violation; the calculation method underlying the demand; and the grounds upon which the demand is based. Prior to issuing a written demand for stipulated penalties, the United States may, in its unreviewable discretion, contact INEOS for informal discussion of matters that the United States believes may merit stipulated penalties.

76. Stipulated Penalties' Accrual. Stipulated penalties will begin to accrue on the day after performance is due or the day a violation occurs, whichever is applicable, and will continue to accrue until performance is satisfactorily completed or the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

77. Stipulated Penalties Payment Due Date. Stipulated penalties shall be paid no later than sixty (60) days after receipt of a written demand by the United States unless the demand is disputed through compliance with the requirements of the dispute resolution provisions of this Decree.

78. Manner of Payment of Stipulated Penalties. Stipulated penalties owing to the United States of under \$10,000 will be paid by check and made payable to "U.S. Department of Justice," referencing DOJ Case Number 90-5-2-1-08875/1 and USAO File Number 2008V00778, and delivered to the U.S. Attorney's Office in the Northern District of Ohio, Suite 308, Four Seagate Third Floor, Toledo, OH 43604. Stipulated penalties owing to the United States of

\$10,000 or more will be paid in the manner set forth in Section IV (Civil Penalty) of this Consent Decree. All transmittal correspondence shall state that the payment is for stipulated penalties, shall identify the violations to which the payment relates, and shall include the same identifying information required by Paragraph 10.

79. Disputes over Stipulated Penalties. By no later than sixty (60) days after receiving a demand for stipulated penalties, INEOS may dispute liability for any or all stipulated penalties demanded by invoking the dispute resolution procedures of Section X. If INEOS fails to pay stipulated penalties when due and does not prevail in dispute resolution, INEOS shall be liable for interest at the rate specified in 28 U.S.C. § 1961, accruing as of the date payment became due.

80. No amount of the stipulated penalties paid by INEOS shall be used to reduce its federal tax obligations.

81. Subject to the provisions of Section XII of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for a violation of this Consent Decree or applicable law. In addition to injunctive relief or stipulated penalties, the United States may seek mitigating emissions reductions equal to or greater than the excess amounts emitted if the violations result in excess emissions. INEOS reserves the right to oppose and/or dispute the United States' request for mitigating excess emissions. Where a violation of this Consent Decree is also a violation of the CAA or its implementing regulations, INEOS shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

IX. FORCE MAJEURE

82. If any event occurs that causes or may cause a delay or impediment to performance in compliance with any provision of this Consent Decree, INEOS shall notify EPA in writing as soon as practicable, but in any event within 10 working days of the date when INEOS first knew of the event or should have known of the event by the exercise of due diligence. In this notice, INEOS shall specifically reference this Section IX and describe the anticipated length of time the delay may persist, the cause or causes of the delay, the measures taken or to be taken by INEOS to prevent or minimize the delay, and the schedule by which those measures shall be implemented. INEOS shall take all reasonable steps to avoid or minimize such delays. The notice required by this Section shall be effective upon the mailing of the notice by certified mail, return receipt requested, to EPA in the manner specified in Paragraph 109.

83. Failure by INEOS to substantially comply with the notice requirements of Paragraph 82 shall render this Section voidable by the United States as to the specific event for which INEOS has failed to comply with such notice requirements, and, if voided, this Section is of no effect as to the particular event involved.

84. The United States shall notify INEOS in writing regarding its claim of a delay or impediment to performance within 45 days of receipt of the notice required under Paragraph 82.

85. If the United States agrees that the delay or impediment to performance has been or will be caused by circumstances beyond the control of INEOS, including any entity controlled by INEOS, and that INEOS could not have prevented the delay by the exercise of due diligence, the United States and INEOS shall stipulate in writing to an extension of the required deadlines(s) for all requirement(s) affected by the delay for a period equivalent to the delay actually caused by such circumstances. Such stipulation shall be treated as a non-material modification to this Consent

Decree pursuant to Paragraph 112. INEOS shall not be liable for stipulated penalties for the period of any such delay.

86. If the United States does not accept INEOS's claim of a delay or impediment to performance, INEOS must submit the matter to the Court for resolution to avoid payment of stipulated penalties by filing a petition with the Court no later than 30 days after receipt of the United States' notice pursuant to Paragraph 84. Once INEOS has submitted this matter to the Court, the United States shall have 45 days to file its response to the petition. If the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of INEOS, including any entity controlled by INEOS, and that INEOS could not have prevented the delay by the exercise of due diligence, INEOS shall be excused as to that event(s) and associated delay (including stipulated penalties) for a period of time equivalent to the delay caused by such circumstances.

87. INEOS shall bear the burden of proving that any delay in complying with any requirement(s) of this Consent Decree was caused by or will be caused by circumstances beyond its control, including any entity controlled by INEOS, and that it could not have prevented the delay by the exercise of due diligence. INEOS also shall bear the burden of proving the duration and extent of any delay(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but will not necessarily, result in an extension of a subsequent compliance date or dates.

88. Unanticipated or increased costs or expenses associated with the performance of INEOS's obligations under this Consent Decree shall not constitute circumstances beyond its control, or serve as the basis for an extension of time under this Section.

89. Other.

a. Notwithstanding any other provision of this Consent Decree, the parties do not intend for this Court to draw any inferences or establish any presumptions adverse to any Party as a result of INEOS serving a force majeure notice or the Parties' inability to reach agreement regarding a force majeure claim.

b. As part of the resolution of any matter submitted to this Court under this Section, the Parties (by agreement), or the Court (by order), may extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance agreed to by the United States or approved by this Court. INEOS shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule.

X. DISPUTE RESOLUTION

90. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree.

91. Informal Dispute Resolution. The first stage of dispute resolution shall consist of informal negotiations. The dispute shall be considered to have arisen when one Party sends the other Party a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed sixty (60) days after the Notice of Dispute, unless that period is modified by written agreement. If the Parties cannot resolve the dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless within forty-five (45) days after the conclusion of the informal negotiation period, INEOS invokes formal dispute resolution procedures set forth below.

92. Formal Dispute Resolution. INEOS shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting INEOS's position and any supporting documentation relied upon by INEOS.

93. The United States shall serve its Statement of Position within forty-five (45) days of receipt of INEOS's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on INEOS unless INEOS files a motion for judicial review of the dispute in accordance with the following Paragraph.

94. INEOS may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XIV of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within sixty (60) days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of INEOS's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

95. The United States shall respond to INEOS's motion within the time period allowed by the Local Rules of this Court for responses to dispositive motions. INEOS may file a reply memorandum, to the extent permitted by the Local Rules.

96. In a formal dispute resolution proceeding under this Section, INEOS shall bear the burden of demonstrating that its position complies with this Consent Decree, the CAA (if applicable), CERCLA (if applicable), and EPCRA (if applicable), and that it is entitled to relief under applicable principles of law. The United States reserves the right to argue that its position is reviewable only on the administrative record and must be upheld unless arbitrary and capricious or otherwise not in accordance with law, and INEOS reserves the right to argue to the contrary.

97. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of INEOS under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first day of noncompliance, but payment shall be stayed pending resolution of the dispute. If INEOS does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VIII (Stipulated Penalties) or as otherwise ordered by this Court.

XI. INFORMATION COLLECTION AND RETENTION

98. The United States and its representatives and employees shall have the right of entry into the Facility, at all reasonable times, upon presentation of credentials and any other documentation required by law, to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;
- c. obtain documentary evidence, including photographs and similar data, relevant to compliance with the terms of this Consent Decree; and
- d. assess INEOS's compliance with this Consent Decree.

99. Until one year after termination of this Consent Decree, INEOS shall retain, and shall instruct its contractors and agents to preserve, all documents, records, or other information, regardless of storage medium (*e.g.*, paper or electronic) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that directly relate to INEOS's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, the United States may request copies of any documents, records, or other information required to be maintained under this Paragraph.

100. Except for emissions data, including Screening Values, INEOS may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that INEOS seeks to protect as CBI, INEOS shall follow the procedures set forth in 40 C.F.R. Part 2, where applicable. Except for emissions data, including Screening Values, INEOS reserves the right to assert any legal privilege and the United States reserves the right to challenge any claim of privilege.

101. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal laws, regulations, or permits, nor does it limit or affect any duty or obligation of INEOS to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

102. This Consent Decree resolves the civil claims of the United States for the violations alleged in the Complaint filed in this action through the Date of Lodging.

103. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 102. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the CAA, CERCLA, EPCRA or implementing regulations, or under other federal laws, regulations, or permit conditions, except as expressly specified in Paragraph 102. The United States further reserves all legal and equitable remedies to address any situation that may present an imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, the Facility, whether related to the violations addressed in this Consent Decree or otherwise.

104. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties, or other appropriate relief relating to the Facility, INEOS shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 102 of this Section. INEOS reserves any and all rights, claims and defenses it may have in connection with any allegation, suit or claim that may be asserted against it by any State or other person or entity.

105. This Consent Decree is not a permit, or a modification of any permit, under any federal, state, or local laws or regulations. INEOS is responsible for achieving and maintaining compliance with all applicable federal, state, and local laws, regulations, and permits and INEOS's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits. The United States does not, by its consent to the entry of this

Consent Decree, warrant or aver in any manner that INEOS's compliance with any aspect of this Consent Decree will result in compliance with provisions of the CAA, CERCLA, EPCRA or with any other provisions of federal, state, or local laws, regulations, or permits.

106. This Consent Decree does not limit or affect the rights of INEOS or of the United States against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against INEOS, except as otherwise provided by law.

107. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party that is not a Party to this Consent Decree.

XIII. COSTS

108. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) against INEOS incurred in any action necessary to enforce this Consent Decree or to collect any portion of the civil penalty or any stipulated penalties due but not paid by INEOS; provided however, that the United States shall not be entitled to collect such costs in any action in which the United States does not prevail.

XIV. NOTICES

109. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed to the persons set forth below. Submission of hard copies is required and, except as required by Paragraph 49 (for the first LDAR Audit Report), shall be sufficient to comply with the notice requirements of this Consent Decree. For compliance with Paragraph 49, electronic copies shall be submitted to the EPA email addresses listed below. In addition, if electronic copies of other

submissions or response are available, these shall be sent by email to the email addresses listed below.

Notice or submission to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ No. 90-5-2-1-08875/1

Notice or submission to EPA:

Air and Radiation Division
EPA Region 5
77 W. Jackson Blvd. (AE-17J)
Chicago, IL 60604
Attn: Compliance Tracker

and

Robert H. Smith
Office of Regional Counsel
EPA Region 5
77 West Jackson Blvd. (C-14J)
Chicago, IL 60604

Electronic copies to:

Notice or submission to INEOS:

Joseph F. Bianco
SHE Manager
INEOS
1900 Ft. Amanda Rd.
Lima, Ohio 45804-1827

Marcelyn K. Boone
Lima Site Director
INEOS
1900 Fort Amanda Road
Lima, OH 45804-1827

Paul Ajibogun
Counsel, Regulatory Affairs
INEOS
2600 South Shore Boulevard, Suite 500
League City, Texas 77573-2944

Vincent Atriano
Squire Sanders (US) LLP
2000 Huntington Center
41 S. High St.
Columbus, Ohio 43215

Electronic copies to:

Any Party may, by written notice to the other Party, change its designated notice recipient(s) or notice address(es) provided above. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XV. EFFECTIVE DATE

110. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

XVI. RETENTION OF JURISDICTION

111. The Court shall retain jurisdiction over this case until termination of this Consent Decree for the purposes of resolving disputes arising under this Decree, entering orders modifying this Decree, or effectuating or enforcing compliance with the terms of this Decree.

XVII. MODIFICATION

112. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by the United States and INEOS. Where the modification constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court.

113. Any disputes concerning modification of this Decree shall be resolved pursuant to Section X of this Decree (Dispute Resolution); provided, however, that instead of the burden of proof as provided by Paragraph 97, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XVIII. TERMINATION

114. By no sooner than four years after the Effective Date of this Consent Decree, INEOS may send the United States a Request for Termination of this Consent Decree. In the Request for Termination, INEOS must demonstrate that it has maintained satisfactory compliance with this Consent Decree for the two year period immediately preceding the Request for Termination. In no event may this Consent Decree be terminated if the civil penalty and/or any outstanding stipulated penalties have not been paid. The Request for Termination shall include all necessary supporting documentation.

115. Following receipt by the United States of INEOS's Request for Termination, the Parties shall confer informally concerning the Request in the event of any disagreement that the

Parties may have as to whether INEOS satisfactorily has complied with the requirements for termination. If the United States agrees that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

116. If the United States does not agree that the Decree may be terminated, INEOS may invoke dispute resolution under Section X of this Decree. However, INEOS shall not invoke dispute resolution for any dispute regarding termination until sixty (60) days after sending its Request for Termination.

XIX. PUBLIC PARTICIPATION

117. This Consent Decree shall be lodged with the Court for a period of not less than thirty (30) days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. INEOS consents to entry of this Consent Decree without further notice. However, INEOS shall have no obligations under this Consent Decree in the event that the United States withdraws or withholds its consent to this Consent Decree or declines to move for entry of this Consent Decree, or if this Court declines to enter this Consent Decree.

XX. SIGNATORIES/SERVICE

118. The undersigned representatives of INEOS and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice (or his or her designee) each certify that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

119. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis.

120. INEOS agrees not to oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree unless the United States has notified INEOS in writing that it no longer supports entry of the Decree.

121. INEOS agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons. The Parties agree that INEOS need not move or plead in response to the Complaint filed in this action unless and until thirty (30) Days after: (i) the United States has notified INEOS and the Court in writing that the United States no longer supports entry of this Consent Decree; or (ii) the Court's denial of the United States' motion for entry of this Consent Decree. By agreement of the parties, operation of the Federal Rules of Civil Procedure, or order of this Court, the time for INEOS' response may be extended beyond thirty (30) Days.

XXI. INTEGRATION

122. This Consent Decree and its Appendices constitute the final, complete, and exclusive agreement and understanding between the Parties with respect to the settlement embodied in this Consent Decree and its Appendices and supersede all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. No other document, except for any plans or other deliverables that are submitted and approved pursuant to this Decree, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, and no such extrinsic document or statement of any kind shall be used in construing the terms of this Decree.

XXII. FINAL JUDGMENT

123. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court in this action as to the United States and INEOS.

The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

DATED this _____ day of _____ 2012.

UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF OHIO

We hereby consent to the entry of the Consent Decree in the matter of United States v. INEOS USA LLC, subject to public notice and comment.

FOR THE UNITED STATES OF AMERICA

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We hereby consent to the entry of the Consent Decree in the matter of United States v. INEOS USA LLC, subject to public notice and comment.

FOR THE UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY

/s/ Susan Hedman***
SUSAN HEDMAN
Regional Administrator
U.S. Environmental Protection Agency
Region 5
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/s/ Robert A. Kaplan***
ROBERT A. KAPLAN
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*** Signed with permission.

We hereby consent to the entry of the Consent Decree in the matter of United States v. INEOS USA LLC.

FOR INEOS USA LLC

/s/ Marcelyn K. Boone***

MARCELYN K. BOONE

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*** Signed with permission.