

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
WESTERN DIVISION

UNITED STATES OF AMERICA,)
STATE OF IOWA,)
OKLAHOMA DEPARTMENT OF)
ENVIRONMENTAL QUALITY, and)
STATE OF MISSISSIPPI)
)
Plaintiffs,)
)
v.) Civil Action No.
)
TERRA INDUSTRIES INC.,)
PORT NEAL CORPORATION,)
TERRA INTERNATIONAL (OKLAHOMA) INC.,)
TERRA NITROGEN, LIMITED PARTNERSHIP)
and TERRA MISSISSIPPI NITROGEN, INC.)
)
Defendants.)

CONSENT DECREE

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WHEREAS, Plaintiff the United States of America (“United States”), on behalf of the United States Environmental Protection Agency (“U.S. EPA”), Co-Plaintiff the State of Iowa (“Iowa”), Co-Plaintiff the State of Mississippi, (“Mississippi”), by and through the Mississippi Commission on Environmental Quality and the Mississippi Department of Environmental Quality (collectively “MDEQ”), and Co-Plaintiff the Oklahoma Department of Environmental Quality (“Oklahoma DEQ”) (all collectively referred to as “Plaintiffs”), have filed a complaint concurrently with this Consent Decree, alleging that Defendants Terra Industries Inc., Terra Nitrogen, Limited Partnership (“Terra Nitrogen”), Terra International (Oklahoma) Inc. (“Terra International”), Port Neal Corporation (“Port Neal”), and Terra Mississippi Nitrogen, Inc. (“Terra Mississippi”) (collectively “Terra”), violated Sections 111 and 165 of the Clean Air Act (“CAA”), 42 U.S.C. §§ 7401 *et seq.*, and the federally-enforceable State Implementation Plans (“SIPs”) for Iowa, Mississippi, and Oklahoma approved by U.S. EPA pursuant to Section 110 of the CAA, 42 U.S.C. § 7410, which incorporate and/or implement the above-listed federal requirements, and that Terra violated the Title V permit requirements of the CAA, 42 U.S.C. §§ 7661 *et seq.*, with respect to emissions of nitrogen oxide (“NO_x”);

WHEREAS, the Complaint alleges that at all times relevant thereto, Port Neal and/or its predecessors in interest owned and operated nitric acid manufacturing facilities located in or near Sergeant Bluff, Iowa (“Port Neal Facility”);

WHEREAS, the Complaint alleges that at all times relevant thereto, Terra Mississippi and/or its predecessors in interest owned and operated nitric acid manufacturing facilities located in or near Yazoo City, Mississippi (“Yazoo City Facility”);

WHEREAS, the Complaint alleges that at all times relevant thereto, Terra International and/or its predecessors in interest owned and operated a nitric acid manufacturing facility located in or near Woodward, Oklahoma (“Woodward Facility”);

WHEREAS, the Complaint alleges that at all times relevant thereto, Terra Nitrogen and/or its predecessors owned and operated nitric acid manufacturing facilities located in or near Verdigris, Oklahoma (“Verdigris Facility”);

WHEREAS, the Complaint alleges that Terra Industries Inc. was an operator of the nitric acid manufacturing facilities in Sergeant Bluff, Iowa, Yazoo City, Mississippi, Woodward, Oklahoma, and Verdigris, Oklahoma.

WHEREAS, the Complaint alleges that Terra and/or its predecessors in interest constructed, modified, and operated the above-referenced nitric acid manufacturing facilities without obtaining the appropriate pre-construction and operating permits, and without installing the best available control technology (“BACT”). The Complaint also alleges that Terra has failed to comply with applicable emission limits, has failed to obtain valid Title V permits, and has failed to comply with ongoing requirements for emissions monitoring, recordkeeping and reporting at the above-referenced nitric acid manufacturing facilities, in violation of the CAA;

WHEREAS, as more specifically described in Section IV (“Compliance Requirements”), Terra has agreed to install new, and/or enhance existing, selective catalytic reduction (“SCR”) technology at its nine nitric acid production plants in the United States to reduce emissions of “NO_x” to BACT-equivalent levels, as defined at 40 C.F.R. § 52.21(b)(12), and to implement best work practices to minimize air pollution at such Facilities;

WHEREAS, Terra does not admit the violations alleged in the Complaint occurred, and further, does not admit any liability for civil penalties, fines, or injunctive relief to the United States or the State Parties arising out of the circumstances alleged in the Complaint;

WHEREAS, Terra has voluntarily and cooperatively worked with the Plaintiffs to settle this matter in an expedited and environmentally beneficial manner;

WHEREAS, the Parties recognize, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith, will avoid litigation among 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 (Jurisdiction and Venue), 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 of this action pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367, and Sections 113(b) and 304(a) of the CAA, 42 U.S.C. §§ 7413(b) and 7604(a), and over the Parties. Venue lies in this District pursuant to Sections 113(b) and 304(c) of the CAA, 42 U.S.C. §§ 7413(b) and 7604(c), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because some of the violations alleged in the Complaint are alleged to have occurred in, and Terra conducts business in, this judicial district. The Parties consent to this Court's jurisdiction over this Consent Decree and any action to enforce this Consent Decree, and to venue in this judicial district.

2. For purposes of this Consent Decree, and without admitting the violations alleged, Terra agrees that the Complaint states claims upon which relief may be granted pursuant to

Sections 111, 113, 165, 304, and 502 of the CAA, 42 U.S.C. §§ 7411, 7413, 7475, 7604, and 7661a, and/or pursuant to applicable state law.

3. At least sixty (60) days prior to execution of this Consent Decree, EPA notified the Applicable States and Terra of the violations alleged in the Complaint as required by Sections 113(a)(1) and 304(b) of the CAA, 42 U.S.C. § 7413(a)(1); 7604(b).

II. APPLICABILITY

4. The obligations of this Consent Decree apply to and are binding upon the United States, the U.S. EPA, the Applicable State Parties, the Applicable State Agencies, and upon Terra and its officers, employees, agents, subsidiaries, successors, assigns, and other entities or persons otherwise bound by law.

5. No transfer of ownership or operation of any of the Covered Nitric Acid Plants, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Terra of its respective obligations to ensure that the terms of this Consent Decree are implemented. At least 30 Days prior to a transfer of a Covered Nitric Acid Plant to any person that is less than 50% controlled by Terra, Terra shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to the U.S. EPA and the United States Department of Justice and the Applicable State Agency, in accordance with Section XIV of this Decree (Notices). No such transfer shall relieve Terra of any obligation set forth herein unless agreed to in writing by the United States and the Applicable State Party and approved by the Court. Any transfer of ownership or operation of any Covered Nitric Acid Plant without complying with this Paragraph constitutes a violation of this Consent Decree.

6. In any action to enforce this Consent Decree, Terra 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.

7. Terra shall provide a copy of this Consent Decree to all officers, employees, and agents of Terra whose duties might reasonably include compliance with any provision of this Consent Decree, as well as to any contractor retained to perform work required under this Consent Decree. Terra shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

III. DEFINITIONS

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

a. “Applicable State Party” shall mean: (i) with respect to the Port Neal Facility, the State of Iowa; (ii) with respect to the Yazoo City Facility, the State of Mississippi; and (iii) with respect to the Woodward and Verdigris Facilities, Oklahoma DEQ.

b. “Applicable State Agency” shall mean: (i) with respect to the Port Neal Facility, the Iowa Department of Natural Resources; (ii) with respect to the Yazoo City Facility, the MDEQ; and (iii) with respect to the Woodward and Verdigris Facilities, the Oklahoma DEQ.

c. “CEMS” or “Continuous Emission Monitoring System” shall mean the total equipment, required under the applicable CEMS Plan attached as Attachment C to this Consent Decree, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

d. “CEMS Plan” shall mean the applicable CEMS Plan for each of the Covered Nitric Acid Plants that are identified in Attachment A

e. “Complaint” shall mean the Complaint jointly filed by the United States, the State of Iowa, the State of Mississippi, and the Oklahoma DEQ in this action.

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

g. “Covered Nitric Acid Plants” shall mean the nine Nitric Acid Plants that are subject to this Consent Decree: two at the Port Neal Facility (“Port Neal #1 and #2”); two at the Verdigris Facility (“Verdigris #1 and #2”); one at the Woodward Facility (“Woodward #1”); and four at the Yazoo City Facility (“Yazoo #6, #8, #9 and #10”).

h. “Date of Lodging” or “Date of Lodging of the Consent Decree” shall mean the date the Consent Decree is lodged or electronically filed with the Court for the United States District Court for the Northern District of Iowa prior to the public notice and comment period provided for in Section XIX (Public Participation).

i. “Day” or “day” shall mean a calendar day unless expressly stated to be a working day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

j. “Effective Date” shall have the meaning given in Section XV.

k. “Facility” shall mean a plant site at which one or more Covered Nitric Acid Plants are located.

l. “Interest” shall mean the interest rate set forth in to 28 U.S.C. § 1961.

m. “Long-Term NO_x Limit” shall mean a 365-day rolling average NO_x emission limit (rolled daily) expressed as pounds of NO_x emitted per ton of 100% Nitric Acid Produced (“lb/ton”); compliance with the Long-Term NO_x Limit shall be calculated in accordance with the applicable CEMS Plan attached to this Consent Decree as Attachment C. The Long-Term NO_x Limit applies at all times, including during periods of Startup, Shutdown, or Malfunction.

n. “Malfunction” shall mean, consistent with 40 C.F.R. § 60.2, any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, but shall not include failures that are caused in whole or in part by poor maintenance or careless operation.

o. “Month” shall mean calendar month.

p. “NSR” shall mean a program for New Source Review under the CAA. Specifically, “non-attainment NSR” and “major NSR” as used herein refer to the non-attainment area New Source Review program within the meaning of Part D of Subchapter I of the CAA, 42 U.S.C. §§ 7501-7515; “minor NSR” as used herein refers to any state, regional or local statutes, ordinances or regulations calling for review and approval of non-major new and modified sources of air pollution.

q. “NSPS” shall mean the standards of performance for new stationary sources codified at 40 C.F.R. Part 60. General NSPS requirements are codified at 40 C.F.R. Part 60, Subpart A. NSPS requirements specifically for Nitric Acid Plants are codified at 40 C.F.R. Part 60, Subpart G.

r. “NSPS NO_x Limit” shall mean the NO_x emission limit expressed as 1.5 kg of NO_x per metric ton of 100% Nitric Acid Produced (3 lb per ton) specified at 40 C.F.R. § 60.72(a)(1).

s. “100% Nitric Acid Produced” shall mean the quantity of a nitric acid product manufactured by a Nitric Acid Plant multiplied by the concentration of actual nitric acid in the product. For example, if a Nitric Acid Plant produces 100 tons of a 54% nitric acid product, this equals 54 tons of 100% Nitric Acid Produced.

t. “Nitric Acid Plant” shall mean a process unit engaged in the production of nitric acid and related products through the catalytic oxidation of ammonia. Terra owns and operates nine (9) Nitric Acid Plants that are subject to this Consent Decree: Port Neal #1 and #2, Yazoo #6, #8, #9, and #10, Woodward #1, and Verdigris #1 and #2.

u. “NO_x” shall mean the pollutant nitrogen oxides. For the purposes of calculating mass emission rates, NO_x has a molecular weight of 46.0055 lb/lb-mol.

v. “NO_x Stack Analyzer” shall mean that portion of the CEMS that senses NO_x and generates an output proportional to the NO_x concentration.

w. “One-hour Period” and “1-hour Period” shall mean any 60-minute period commencing on the hour.

x. “One-minute Measurement” shall mean any single measurement or the arithmetic average of multiple measurements of a parameter during a one-minute period commencing on the minute.

y. “Operating Periods” shall mean periods during which a Covered Nitric Acid Plant is producing nitric acid and NO_x is emitted, including periods of Startup, Shutdown and Malfunction.

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

aa. “Parties” shall mean the United States (including the U.S. EPA), the State of Iowa, the Oklahoma DEQ, the State of Mississippi, and Terra.

bb. “Port Neal Facility” shall mean the facility located at 1182 260th Street, Sergeant Bluff, IA 51054, which includes two Covered Nitric Acid Plants (known as Port Neal #1 and Port Neal #2) and which is currently owned and operated by Port Neal.

cc. “PSD” shall mean the attainment area New Source Review program (prevention of significant deterioration) within the meaning of Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492.

dd. “SCR” shall mean a device that employs selective catalytic reduction technology for the reduction of NO_x.

ee. “Section” shall mean a portion of this Consent Decree identified by a roman numeral.

ff. “Short-Term NO_x Limit” shall mean a 3-hour rolling average NO_x emission limit (rolled hourly) expressed in terms of pounds of NO_x emitted per ton of 100% Nitric Acid Produced (“lb/ton”); compliance with the Short-Term NO_x Limit shall be calculated in accordance with the applicable CEMS Plan attached to this Consent Decree as Attachment C. The Short-Term NO_x Limit does not apply during periods of Startup, Shutdown, or Malfunction.

gg. “Shutdown” shall mean the cessation of nitric acid production operations of a Covered Nitric Acid Plant for any reason. Shutdown begins at the time the feed of ammonia to the Covered Nitric Acid Plant ceases and ends 3 hours later.

hh. “Stack Flowmeter” shall mean that portion of the CEMS that senses the volumetric flow rate and generates an output proportional to that flow rate.

ii. “Startup” shall mean the process of initiating nitric acid production operations of a Covered Nitric Acid Plant. Startup begins 1 hour prior to the initiation of the feed of ammonia to the Covered Nitric Acid Plant and ends no more than 5 hours after such initiation of the feed of ammonia.

jj. “State Parties” shall mean the State of Iowa, the State of Mississippi (by and through the MDEQ), and the Oklahoma DEQ.

kk. “Terra” shall mean Terra Industries Inc., Terra Nitrogen, Limited Partnership, Terra International (Oklahoma) Inc., Port Neal Corporation, and Terra Mississippi Nitrogen, Inc.

ll. “Title V Permit” shall mean a permit required by or issued pursuant to the requirements of 42 U.S.C. §§ 7661 - 7661f.

mm. “Ton” or “tons” shall mean short ton or short tons. One Ton equals 2,000 pounds.

nn. “U.S. EPA” or “EPA” shall mean the United States Environmental Protection Agency or any successor department, agency, or entity.

oo. “Verdigris” shall mean the facility located at 6606 East 540 Road, Claremore, OK 74019, which includes two Covered Nitric Acid Plants (known as Verdigris #1 and Verdigris #2), and which are currently owned and operated by Terra Nitrogen.

pp. “Woodward” shall mean the facility located at 1000 Terra Drive, Woodward, OK 73801, which includes one Covered Nitric Acid Plant (known as Woodward #1), and which is currently owned and operated by Terra International.

qq. “Yazoo City” shall mean the facility located at 4612 Highway 49 East, Yazoo City, MS 39194, which includes four Covered Nitric Acid Plants (known as Yazoo City #6, Yazoo City #8, Yazoo City #9, and Yazoo City #10), and which is currently owned and operated by Terra Mississippi.

IV. COMPLIANCE REQUIREMENTS

A. NO_x Emission Limits and Schedule of Compliance

9. Port Neal #1. As specified in Attachment A, the Port Neal #1 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

a. Short-Term NO_x Limit: 1.0 lb/ton (June 30, 2013).

b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its NO_x emissions from Port Neal #1 as of June 30, 2013 in accordance with the CEMS Plan, but shall have until June 30, 2014, to demonstrate compliance with this Long-Term NO_x Limit.

10. Port Neal #2. As specified in Attachment A, the Port Neal #2 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

a. Short-Term NO_x Limit: 1.0 lb/ton (March 31, 2012).

b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its NO_x emissions from Port Neal #2 as of March 31, 2012, in accordance with the CEMS Plan, but shall have until March 31, 2013, to demonstrate compliance with this Long-Term NO_x Limit.

11. Verdigris #1. As specified in Attachment A, the Verdigris #1 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

a. Short-Term NO_x Limit: 1.0 lb/ton (June 30, 2014).

b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its NO_x emissions from Verdigris #1 as of June 30, 2014, in accordance with the CEMS Plan, but shall have until June 30, 2015, to demonstrate compliance with this Long-Term NO_x Limit.

12. Verdigris #2. As specified in Attachment A, the Verdigris #2 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

a. Short-Term NO_x Limit: 1.0 lb/ton (June 30, 2013).

b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its NO_x emissions from Verdigris # 2 as of June 30, 2013, in accordance with the CEMS Plan, but shall have until June 30, 2014, to demonstrate compliance with this Long-Term NO_x Limit;

13. Woodward #1. As specified in Attachment A, the Woodward #1 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

a. Short-Term NO_x Limit: 1.0 lb/ton (March 31, 2012).

b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its NO_x emissions from Woodward #1 as of March 31, 2012, in accordance with the CEMS Plan, but shall have until March 31, 2013, to demonstrate compliance with this Long-Term NO_x Limit;

14. Yazoo City #6. As specified in Attachment A, the Yazoo City #6 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

a. Short-Term NO_x Limit: 1.0 lb/ton (June 30, 2014)

b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its NO_x emissions from Yazoo City #6 as of March 31, 2014, in accordance with the CEMS Plan, but shall have until March 31, 2015, to demonstrate compliance with this Long-Term NO_x Limit;

15. Yazoo City #8. As specified in Attachment A, the Yazoo City #8 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

- a. Short-Term NO_x Limit: 1.0 lb/ton (June 30, 2014).
- b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its

NO_x emissions from Yazoo #8 as of June 30, 2014, in accordance with the CEMS Plan, but shall have until June 30, 2015, to demonstrate compliance with this Long-Term NO_x Limit;

16. Yazoo City #9. As specified in Attachment A, the Yazoo City #9 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

- a. Short-Term NO_x Limit: 1.0 lb/ton (March 31, 2012).
- b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its

NO_x emissions from Yazoo City #9 as of March 31, 2012, in accordance with the CEMS Plan, but shall have until March 31, 2013, to demonstrate compliance with this Long-Term NO_x Limit.

17. Yazoo City #10. As specified in Attachment A, the Yazoo City #10 Nitric Acid Plant shall comply with the following NO_x emission requirements by the corresponding specified compliance date:

- a. Short-Term NO_x Limit: 1.0 lb/ton (March 31, 2012).
- b. Long-Term NO_x Limit: 0.60 lb/ton. Terra shall commence monitoring its

NO_x emissions from Yazoo City #10 as of March 31, 2012, in accordance with the CEMS Plan, but shall have until March 31, 2013, to demonstrate compliance with this Long-Term NO_x Limit.

B. NSPS Applicability

18. Each Covered Nitric Acid Plant shall be considered an affected facility for purposes of the New Source Performance Standards (“NSPS”), 40 C.F.R. Part 60, Subpart G, by no later than the dates set forth below:

- a. Port Neal #1: June 30, 2013

- b. Port Neal #2: Date of Lodging
- c. Verdigris #1: Date of Lodging
- d. Verdigris #2: Date of Lodging
- e. Woodward #1: Date of Lodging
- f. Yazoo City #6: March 31, 2014
- g. Yazoo City #8: Date of Lodging
- h. Yazoo City #9: Date of Lodging
- i. Yazoo City #10: Date of Lodging

After such dates, each Covered Nitric Acid Plant shall comply with all applicable requirements for affected facilities under the NSPS at 40 C.F.R. Part 60, Subparts A and G, or with the requirements of this Consent Decree (if more stringent). Satisfactory compliance with notice and compliance demonstration obligations set forth in this Consent Decree shall be deemed to satisfy all applicable initial notification and compliance demonstration requirements of NSPS Subparts A and G.

19. Best Practices. At all times after the Effective Date of this Consent Decree, including periods of Startup, Shutdown, and Malfunction, Terra shall, to the extent practicable, maintain and operate each Covered Nitric Acid Plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, consistent with 40 C.F.R. § 60.11(d).

C. Emissions Monitoring

20. Installation, Certification, and Calibration. By no later than the applicable “Deadline for Installation, Certification and Calibration of CEMS” set forth in Attachment A of this Consent Decree, Terra shall install, certify, and calibrate a NO_x Continuous Emissions Monitoring System (“CEMS”) on each Covered Nitric Acid Plant. Each CEMS shall include a

NO_x Analyzer capable of measuring NO_x concentration and a Stack Flowmeter that senses volumetric flow rate. Except as may be specified in the applicable CEMS Plan in Attachment C of this Consent Decree, the NO_x Stack Analyzers shall comply with 40 C.F.R. Part 60, Appendix B, Performance Specification 2 and the quality assurance/quality control requirements specified in 40 C.F.R. Part 60, Appendix F, Procedure 1, and the Stack Flowmeters shall comply with 40 C.F.R. Part 60, Appendix B, Performance Specification 6.

21. Continuous Operation of CEMS and Minimization of CEMS Downtime. On and after the applicable “Deadline for Installation, Certification and Calibration of CEMS” set forth in Attachment A of this Consent Decree, and except during periods of CEMS breakdowns, analyzer malfunctions, repairs, and required quality assurance or quality control activities (including calibration checks and required zero and span adjustments), the CEMS on each Covered Nitric Acid Plant shall be in continuous operation during all Operating Periods to demonstrate compliance with the NO_x emission limits established in Section IV.A. of this Consent Decree. Terra shall take all necessary steps to minimize CEMS breakdowns and minimize CEMS downtime. This shall include, but is not limited to, operating and maintaining the CEMS in accordance with best practices and maintaining an on-site inventory of spare parts or other supplies necessary to make rapid repairs to the equipment.

22. NO_x CEMS Plan. On and after the applicable “Deadline for Installation, Certification and Calibration of CEMS” in Attachment A of this Consent Decree, each Covered Nitric Acid Plant shall implement the applicable CEMS Plan at Attachment C. Attachment C describes how Terra shall monitor compliance with the NO_x emission limits for each Covered Nitric Acid Plant established in Section IV.A of this Consent Decree, including the methodology required to demonstrate compliance in the event of CEMS downtime. The U.S. EPA, the Applicable State Parties, and the Applicable State Agencies have approved the monitoring

methods specified in the CEMS Plan in Attachment C of this Consent Decree as appropriate alternative monitoring methods for purposes of NSPS, pursuant to 40 C.F.R. § 60.13(i) for each Covered Nitric Acid Plant.

D. Performance Testing

23. Dates. Terra shall conduct the performance tests required in this Section IV.D at the Covered Nitric Acid Plants by no later than the applicable “Deadline to Conduct Performance Test” specified in Attachment A of this Consent Decree for each such corresponding Covered Nitric Acid Plant.

24. NO_x Emission Limits. Terra shall conduct a performance test at each Covered Nitric Acid Plant measuring the emission rate of NO_x in accordance with the applicable requirements of 40 C.F.R. §§ 60.8, 60.73, 60.74, Part 60 Appendix A, and Part 60 Appendix B. This test shall consist of at least nine method test runs and may serve as the CEMS relative accuracy test required under Performance Specification 2 in Part 60 Appendix B. Terra shall, to the extent practicable, assure accurate measurements of 100% Nitric Acid Produced during each test run.

25. Conversion Factor. During each performance test required under Paragraph 24 of this Consent Decree, Terra shall establish a conversion factor for each Covered Nitric Acid Plant for the purpose of converting monitoring data, in terms of NO_x concentration, into terms of mass of NO_x per unit of 100% Nitric Acid Produced consistent with 40 C.F.R. § 60.73(b). Subsequently, Terra shall reestablish the conversion factors during each Relative Accuracy Test Audit conducted in accordance with 40 C.F.R. Part 60, Appendix F.

26. Advance Notification. By no later than 30 days before any performance test required by this Section IV.D is conducted, Terra shall provide notice, in the manner set forth in Section XIV (Notice), to the U.S. EPA and the Applicable State Agency of its intent to conduct

such test. This notification must include the scheduled date of the test, an emissions test protocol, a description of the planned operating rate and operating conditions, and the procedures that will be used to measure 100% Nitric Acid Produced. If the U.S. EPA or the Applicable State Agency identifies specific concerns regarding the proposed emissions test protocol, operating conditions and/or procedures to be used and notifies Terra in writing of these concerns a minimum of 7 Days prior to the proposed test date, Terra shall either make such adjustments and conduct the performance test in conformity with the U.S. EPA's and/or the Applicable State Agency's identified concerns or submit the issue(s) for resolution under the dispute resolution provisions (Section X) of this Consent Decree.

27. Report of Results. By no later than 60 days after completing a performance test required under this Section IV.D, Terra shall submit to the U.S. EPA and to the Applicable State Agency, in the manner set forth in Section XIV (Notices), a copy of the report documenting the results of such corresponding performance test.

E. Operation and Maintenance Plans

28. By no later than the applicable "O&M Plan Submittal Deadline" set forth in Attachment A of this Consent Decree for each corresponding Covered Nitric Acid Plant, Terra shall prepare and submit to the U.S. EPA and the Applicable State Agency, in the manner set forth in Section XIV (Notices), an Operation and Maintenance Plan ("O&M Plan") for each Covered Nitric Acid Plant.

29. Each O&M Plan shall describe the operating and maintenance procedures necessary to: (i) minimize the frequency of Covered Nitric Acid Plant Shutdowns (thereby reducing the number of Startups of each Covered Nitric Acid Plant); and (ii) at all times, including periods of Startup, Shutdown, and Malfunction, maintain and operate each Covered Nitric Acid Plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. The U.S. EPA and/or the Applicable State Agency may provide comments and/or recommendations with respect to each corresponding O&M Plan.

30. By no later than the applicable “O&M Plan Implementation Deadline” set forth in Attachment A of this Consent Decree for each corresponding Covered Nitric Acid Plant, Terra shall implement the O&M Plan for each Covered Nitric Acid Plant. At least once every three years, Terra shall review, and update as necessary, the O&M Plan for the Covered Nitric Acid Plants.

V. PERMITS

31. Permits Prior to Construction or Installation. Terra shall obtain all required federal, state, and local permits necessary for performing any compliance obligation under this Consent Decree, including but not limited to, permits for construction of pollution control technology and the installation of equipment at the Covered Nitric Acid Plants. Terra may seek relief under the provisions of Section IX (Force Majeure) of this Consent Decree for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation if Terra has submitted timely and administratively complete permit applications and has taken all other actions necessary to obtain such permit(s) or approval(s).

32. Applications for Permits Incorporating the Limits in Section IV.A. By no later

than the dates set forth below, Terra shall follow the procedures set forth in subparagraphs a., b., and c. below to submit to the relevant permitting authority an administratively complete permit application to incorporate the following requirements into federally enforceable minor or major NSR permits or other federally-enforceable permits (other than Title V permits): (i) NO_x emission limits established in Section IV.A of this Consent Decree; (ii) Monitoring requirements established in the applicable CEMS Plan in Attachment C of this Consent Decree; and (iii) Applicability of 40 C.F.R. Part 60, Subparts A and G, and all requirements therein.

a. For the Port Neal Facility, Terra shall apply for a construction permit pursuant to 567 Iowa Administrative Code 22.1 by the following dates:

Port Neal #1: June 30, 2012

Port Neal #2: October 1, 2011

b. For the Woodward and Verdigris Facilities, terra shall apply for a construction permit pursuant to 27A Okla. Stat. § 2-5-112 and OAC 252:100-8 by the following dates:

Verdigris #1: December 31, 2014

Verdigris #2: December 31, 2013

Woodward: September 30, 2012

c. For the Yazoo City Facility, Terra shall apply for a construction permit pursuant to Mississippi Commission on Environmental Quality Regulation APC-S-2 by the following dates:

Yazoo City #6: December 31, 2014

Yazoo City #8: December 31, 2014

Yazoo City #9: September 30, 2012

Yazoo City #10: September 30, 2012

33. Following submission of the complete permit applications, Terra shall cooperate with the Applicable State Agency by promptly submitting any information required by the Applicable State Agency for purposes of processing such applications.

34. Title V or Other Operating Permits: Emission Limits and Standards. This Consent Decree shall not terminate until the requirements set forth in this Paragraph are incorporated into Title V or other operating permits for each Covered Nitric Acid Plant and its associated Facility. Therefore, during the duration of this Consent Decree, Terra shall file all applications necessary to incorporate the following Consent Decree requirements into the Title V or other operating permits for each Covered Nitric Acid Plant in accordance with Applicable State Agency rules, including applicable administrative amendment provisions of such rules:

a. NO_x emission requirements specified in Paragraphs 9 through 17 of Section IV.A of this Consent Decree (*i.e.* Short-Term NO_x Limit of 1.0 lb/ton and Long-Term NO_x Limit of 0.60/lb/ton) applicable to each Covered Nitric Acid Plant;

b. A statement that the above-referenced NO_x emission requirements applicable to each Covered Nitric Acid Plant were established pursuant to a negotiated Consent Decree with EPA and shall not be relaxed without the approval of EPA and the Applicable State.;

c. Monitoring requirements established in the applicable CEMS Plan in Attachment C of this Consent Decree; and

d. Applicability of NSPS 40 C.F.R. Part 60, Subparts A and G, and all applicable requirements therein.

35. Requirements incorporated into Title V or other operating permits pursuant to Paragraph 34 shall survive termination of this Consent Decree.

36. For any permit applications required by this Section V that are filed after the

Effective Date of this Consent Decree, Terra shall submit to the U.S. EPA in the manner set forth in Section XIV (Notices), a copy of each application, as well as a copy of any permit proposed as a result of such application, to allow for timely participation in any public comment opportunity. If, as of the Effective Date of this Consent Decree, Terra already has received any permit necessary to implement the requirements of this Consent Decree, then no later than 30 days after the Effective Date of this Consent Decree, Terra shall submit copies of such permits to the U.S. EPA in the manner set forth in Section XIV (Notices). The U.S. EPA may excuse in writing all or part of the latter submissions if copies of such permits have already been submitted prior to the Effective Date of this Consent Decree.

37. Emission Credit Generation. Terra shall not use any NO_x emission reductions resulting from implementation of this Consent Decree for the purpose of obtaining netting credits or offsets in any PSD, major NSR, and/or minor NSR permit or permit proceeding and shall not buy, sell or trade any NO_x emission reductions resulting from implementation of this Consent Decree; provided however, that nothing in this Consent Decree is intended to prohibit Terra from:

- a. Using netting reductions or emission offset credits from Covered Nitric Acid Plants that are covered by this Consent Decree to the extent the proposed netting reductions or emission offset credits represent the difference between the emission limits set forth in this Consent Decree and the more stringent emission limits that Terra may elect to accept for the Covered Nitric Acid Plants in a permitting process;
- b. Using netting reductions or emissions offset credits from units that are not Covered Nitric Acid Plants;
- c. Using netting reductions or emissions offset credits for any pollutants other than NO_x.

38. Baseline Actual Emissions. For the purposes of calculating baseline actual

emissions as defined in the PSD or NSR rules, in any PSD, major NSR, and/or minor NSR permit or permit proceeding for any Covered Nitric Acid Plant, emissions of NO_x from any Covered Nitric Acid Plant during any 24-month period selected by Terra shall be adjusted downward to exclude any emissions that would have exceeded the Long-Term NO_x Limit for that Covered Nitric Acid Plant established under this Consent Decree had the Covered Nitric Acid Plant been required to comply with the Long-Term NO_x Limit during the selected consecutive 24-month period.

VI. REPORTING REQUIREMENTS

39. Information Documenting how Compliance will be Achieved. By no later than the applicable “Submittal Deadline for Documentation of How Terra Intends to Comply” set forth in Attachment A of this Consent Decree for each corresponding Covered Nitric Acid Plant, Terra shall submit, in the manner set forth in Section XIV (Notices), information (including, if applicable, preliminary design specifications) documenting how Terra intends to comply with the NO_x emission limits set forth in Section IV.A of this Consent Decree.

40. Semi-Annual Reports: Contents. Terra shall submit to the U.S. EPA and the Applicable State Agency, in the manner set forth in Section XIV (Notices), a semi-annual progress report no later than January 31 and July 31 of each year, with the first semi-annual report due on July 31, 2011. Each semi-annual report shall contain the following information with respect to the half-year between July 1 and December 31, or the half-year between January 1 and June 30:

a. Work performed and progress made toward implementing the requirements of Section IV of this Consent Decree;

b. Any significant modifications to previously-submitted design specifications of any pollution control system, or to monitoring equipment, required to comply

with the requirements of Section IV of this Consent Decree;

c. Any significant problems encountered or anticipated in complying with the requirements of Section IV of this Consent Decree;

d. A summary of the emissions monitoring and testing data collected to demonstrate compliance with a requirement of this Consent Decree;

e. On and after the compliance dates for the applicable Short-Term NO_x Limit, a description of all periods of Startup, Shutdown, and Malfunction, including the quantity of NO_x emitted during such periods, and the cause of Malfunctions;

f. On and after the compliance dates for the applicable Short-Term NO_x Limit, all information required to be reported in the applicable CEMS Plan;

g. Status of permit applications and a summary of all permitting activity pertaining to compliance with this Consent Decree;

h. Any correspondence with Applicable State Agencies pertaining to compliance with this Consent Decree; and

i. After submission of the O&M Plans specified in Paragraph 28 of this Consent Decree, a description of any changes or updates made to such Plans.

41. Notification of Potential Non-Compliance. If Terra violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Terra shall notify the United States and the Applicable State Agency of such violation or potential violation and its duration or anticipated likely duration, in writing, within 45 calendar days of the day Terra first becomes aware of the violation or potential violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, Terra shall so state in the report. Terra shall investigate the cause of the violation and shall then submit an amendment to

the report, including a full explanation of the cause of the violation, within 30 days of the day Terra becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Terra of its obligation to provide the notice required by Section IX of this Consent Decree (Force Majeure).

42. Imminent Threat. Whenever any violation of this Consent Decree or of any applicable permits or any other event at a Covered Nitric Acid Plant may pose an immediate threat to the public health or welfare or the environment, Terra shall notify EPA and the Applicable State Agency orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after Terra first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph, and is in addition to any other state or federal reporting requirement which may be applicable.

43. All reports shall be submitted to the persons and in the manner designated in Section XIV (Notices) of this Consent Decree.

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

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gather and present the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowingly and willfully submitting a materially false statement.

45. The reporting requirements of this Consent Decree do not relieve Terra of any reporting obligations required by the CAA 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.

46. Any information provided pursuant to this Consent Decree may be used by the United States or the State Parties in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law. All information and documents submitted by Terra to the United States or the State Parties pursuant to this Consent Decree shall be subject to public inspection unless identified and supported as confidential business information (“CBI”) in accordance with 40 C.F.R. Part 2 and other applicable state law. Under no circumstances shall emissions data required to be submitted pursuant this Consent Decree be identified or considered CBI.

VII. CIVIL PENALTY

47. Within 30 Days after the Effective Date of this Consent Decree, Terra shall pay the sum of \$625,000 as a civil penalty, as follows:

a. \$325,000 to the United States, together with Interest accruing from the Date of Lodging. This payment shall be made by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice in accordance with written instructions to be provided to Terra, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney’s Office for the Northern District of Iowa. At the time of payment, Terra shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in United

States, et al. v. Terra Industries, et al., and shall reference the civil action number, USAO # 2010V00282 and DOJ # 90-5-2-1-2062/1 to the United States in the manner set forth in Section XIV of this Consent Decree (Notices); by email to _____ and by mail to:

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

b. \$100,000 to the State of Iowa by certified check made payable to the State of Iowa and sent to David R. Sheridan, Assistant Attorney General, Environmental Law Division, Lucas State Office Building, 321 E. 12th Street, Room 018, Des Moines, Iowa 50319.

c. \$100,000 to the Mississippi Department of Environmental Quality by certified check made payable to the Mississippi Department of Environmental Quality and sent to Mona Varner, P.O. Box 2339, Jackson, MS 39225.

d. \$100,000 to the Oklahoma Department of Environmental Quality by certified check or money order made payable to the Oklahoma Department of Environmental Quality Revolving Fund and delivered to: Accounts Receivable, Financial and Human Resources Management, Department of Environmental Quality, P.O. Box 2036, Oklahoma City, Oklahoma 73101-2036.

48. If any portion of the civil penalty due an Applicable State Party is not paid when due, Terra 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.

49. Terra shall not deduct any penalties paid under this Consent Decree pursuant to this Section or Section VIII (Stipulated Penalties) in calculating its federal or state or local income tax.

VIII. STIPULATED PENALTIES

50. Terra shall be liable for stipulated penalties to the United States and the Applicable State Party for violations of this Consent Decree as specified below, unless excused under Section IX (Force Majeure) or reduced or waived pursuant to Paragraph 61 of this Consent Decree. A violation includes failing to perform any obligation required by the terms of this Consent Decree, including any work plan or schedule approved under this Consent Decree, according to all applicable requirements of this Consent Decree and within the specified time schedules established by or approved under this Consent Decree.

51. Late Payment of Civil Penalty. If Terra fails to pay the civil penalty required to be paid under Section VII of this Consent Decree (Civil Penalty) or any part thereof when due, Terra shall pay a stipulated penalty of \$1,000 per Day for each Day that the payment is late.

52. Short-Term NO_x Limits as set forth in Paragraphs 9 - 17. For each violation of a Short-Term NO_x Limit, in any non-overlapping 3-hour period (*i.e.*, no more than eight violations in a single twenty-four hour period) on and after the corresponding applicable Compliance Date, the stipulated penalty shall be as follows:

<u>Percentage Over the Limit</u>	<u>Penalty per Violation</u>
1 - 50%	\$250
51 - 100%	\$500
Over 100%	\$750

Where a violation of the Short-Term NO_x Limit also violates the NSPS NO_x Limit, the provisions of this stipulated penalty paragraph shall apply.

53. Long-Term NOx Limits as set forth in Paragraphs 9 - 17. For each violation, per day on or after the corresponding applicable Compliance Date, of the Long-Term NOx Limit, the stipulated penalty shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per day</u>
1st - 14th day	\$1000
15th - 30th day	\$1500
31st day and each day thereafter	\$2000

Except that, with respect to Yazoo City No. 6, no stipulated penalties shall accrue for Terra's failure to meet the Long Term NOx limits as set forth in Paragraph 14 by March 31, 2015 provided that Terra complies with the limit by June 30, 2015.

54. Opacity Limits in the NSPS. For each violation of the opacity requirements of 40 C.F.R. § 60.72(a)(2), as demonstrated by a EPA Reference Test Method 9 , \$40 per six (6) minute average reading in excess of the limit, up to a maximum of \$2000 per day.

55. Emissions Monitoring. For each violation of any of the requirements of Paragraphs 20 - 22 and the CEMS Plan, the stipulated penalty shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per violation per day</u>
1st - 14th day	\$1500
15th - 30th day	\$2000
31st day and each day thereafter	\$2500

56. Performance Testing. For each violation of any of the requirements of Paragraphs 23 - 27, the stipulated penalty shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per violation per day</u>
1st - 14th day	\$1000
15th - 30th day	\$1500
31st day and each day thereafter	\$2000

57. Permitting Requirements. For each violation of any of the requirements of Paragraphs 31 - 38, the stipulated penalty shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per violation per day</u>
1st - 14th day	\$1000
15th - 30th day	\$1500
31st day and each day thereafter	\$2000

58. Reporting Requirements. For each violation of any of the requirements of Paragraphs 39 - 44, the stipulated penalty shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per violation per day</u>
1st - 14th day	\$150
15th - 30th day	\$250
31st day and each day thereafter	\$500

59. All Others. For each failure to comply with any requirement of this Consent Decree not specifically referenced in Paragraphs 50 - 58 or of any plan or schedule approved under this Consent Decree within the specified time established by or approved under this Consent Decree, the stipulated penalty shall be as follows:

<u>Period of Noncompliance</u>	<u>Penalty per violation per day</u>
1st - 14th day	\$150
15th - 30th day	\$250
31st day and each day thereafter	\$500

60. Allocation of Stipulated Penalties Among the United States and the Applicable State Parties. Terra shall pay stipulated penalties provided under this Consent Decree upon written demand by the United States or the Applicable State Party. Demand from either the United States or an Applicable State Party shall be deemed a demand from both, but the United States and the Applicable State Party shall consult with each other prior to making a demand. Stipulated penalties shall be paid to the United States and the Applicable State Party, 50% to each, in accordance with payment procedures set forth in Paragraph 65.

61. Waiver of Payment. After consultation, the United States and/or the Applicable State Party may, in its/their unreviewable discretion, reduce or waive payment of any portion or all of the stipulated penalties that may be due to it/them under this Consent Decree.

62. 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 that the United States and/or the Applicable State Party is demanding for each violation (as can be best estimated); the calculation method underlying the demand; and the grounds upon which the demand is based.

63. 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.

64. Stipulated Penalties Payment Due Date. Stipulated penalties shall be paid no later than thirty (30) days after Terra's receipt of a written demand by the United States and/or the Applicable State Party unless the demand is disputed through compliance with the requirements of Section X (Dispute Resolution) of this Consent Decree.

65. 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 # 90-5-2-1-2062/1 and delivered to the U.S. Attorney's Office in the Northern District of Iowa, 401 First Street SE Suite 400, Cedar Rapids, Iowa 52401-1825. Stipulated penalties owing to the United States of \$10,000 or more and stipulated penalties owing to the Applicable State Parties will be paid in the manner set forth in Section VII (Civil Penalty) of this Consent Decree for each such Party. 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 47.

66. Disputes over Stipulated Penalties. Stipulated penalties shall continue to accrue as provided in Paragraph 63, during any Dispute Resolution, but need not be paid until the following:

a. If the dispute is resolved by agreement or by a decision of the U.S. EPA or the Applicable State Party that is not appealed to the Court, Terra shall pay accrued penalties determined to be owing, together with Interest, to the United States or the Applicable State Party within 30 Days of the effective date of the agreement or the receipt of the U.S. EPA's or the Applicable State Party's decision or order.

b. If the dispute is appealed to the Court and the United States or the Applicable State Party prevails in whole or in part, Terra shall pay all accrued penalties determined by the Court to be owing, together with interest as provided in 28 U.S.C. § 1961,

within 60 Days of receiving the Court's decision or order, except as provided in subparagraph c, below.

c. If any Party appeals the District Court's decision, Terra shall pay all accrued penalties determined to be owing, together with Interest, within 15 Days of receiving the final appellate court decision.

67. No amount of the stipulated penalties paid by Terra pursuant to this Consent Decree shall be used by Terra to reduce its federal or state tax obligations.

68. If Terra fails to pay stipulated penalties according to the terms of this Consent Decree, Terra shall be liable for Interest on such penalties, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States or the Applicable State Party from seeking any remedy otherwise provided by law for Terra's failure to pay any stipulated penalties.

69. Subject to the provisions of Section XII (Effect of Settlement/Reservation of Rights) of this Consent Decree, the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States or the Applicable State Party for a violation of this Consent Decree or applicable law. If violations of the Long-Term NO_x Limit established in Paragraphs 9 through 17 of Section IV.A. of this Consent Decree (*i.e.* 0.60 lb/ton) at a Covered Nitric Acid Plant results in excess emissions greater than one ton of NO_x as determined based on a 365-day rolling average (rolled daily), then the United States and/or Applicable State Party may elect to seek compensatory emissions reductions equal to the excess mass amount of NO_x emissions the Covered Nitric Acid Plant emitted in accordance with and pursuant to Attachment D to this Consent Decree in addition to injunctive relief or stipulated penalties. Where a violation of this Consent Decree also is a violation of Subparts A or G of the NSPS or of the PSD or non-attainment NSR requirements or

of the Title V or other operating permit requirements, Terra shall be allowed a credit for any stipulated penalties paid (whether to the United States and/or the Applicable State Party) against any statutory penalties imposed for such violation.

IX. FORCE MAJEURE

70. “Force Majeure,” for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Terra, of any entity controlled by Terra, or of Terra’s contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Terra’s best efforts to fulfill the obligation. The requirement that Terra exercise “best efforts to fulfill the obligation” includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. “Force Majeure” does not include Terra’s financial inability to perform any obligation under this Consent Decree.

71. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, Terra shall provide notice orally or by electronic or facsimile transmission to the United States and/or the Applicable State Party within fifteen (15) days of when Terra first knew that the event might cause a delay. Within seven days thereafter, Terra shall provide in writing to United States and/or the Applicable State Party an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Terra’s rationale for attributing such delay to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Terra, such event may cause or contribute to an endangerment to public health, welfare or the environment. Terra

shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Terra from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Terra shall be deemed to know of any circumstance of which Terra, any entity controlled by Terra, or Terra's contractors knew or should have known.

72. If the U.S. EPA, after a reasonable opportunity for review and comment by the Applicable State Agency, agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by the U.S. EPA, after a reasonable opportunity for review and comment by the Applicable State Agency, for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. The U.S. EPA will notify Terra in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

73. If the U.S. EPA, after a reasonable opportunity for review and comment by the Applicable State Agency, does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, the U.S. EPA will notify Terra in writing of its decision.

74. If Terra elects to invoke the dispute resolution procedures set forth in Section X (Dispute Resolution) of this Consent Decree, Terra shall do so no later than fifteen (15) days after receipt of the U.S. EPA's notice pursuant to Paragraph 72 or 73. In any such proceeding, Terra shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts

were exercised to avoid and mitigate the effects of the delay, and that Terra complied with the requirements of Paragraphs 70 and 71, above. If Terra carries this burden, the delay at issue shall be deemed not to be a violation by Terra of those obligations of this Consent Decree that Terra identified to EPA and the Court as being delayed by the force majeure event.

X. DISPUTE RESOLUTION

75. 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. Terra's failure to seek resolution of a dispute under this Section shall preclude Terra from raising any such issue as a defense to an action by the United States to enforce any obligation of Terra arising under this Consent Decree.

76. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Terra sends the United States and the Applicable State 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 20 Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States, in consultation with the Applicable State Party, shall be considered binding unless, within 30 Days after the conclusion of the informal negotiation period, Terra invokes formal dispute resolution procedures as set forth below.

77. Formal Dispute Resolution. Terra shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States and the Applicable State Party 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 Terra's position and any supporting documentation relied upon by Terra.

78. The United States shall serve its Statement of Position upon Terra within 45 Days of receipt of Terra's Statement of Position. The United States' Statement of Position shall be prepared in consultation with the Applicable State Party and 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. In the event that the position of the United States and the Applicable State Party differ, the Statement of Position of the United States shall represent the final position of the Plaintiffs and shall be binding on Terra, unless Terra files a motion for judicial review of the dispute in accordance with the following Paragraph.

79. Terra may seek judicial review of the dispute by filing with the Court and serving on the United States and the Applicable State Party, in accordance with Section XIV of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 10 Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Terra'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 this Consent Decree.

80. The United States and the Applicable State Party shall respond to Terra's motion within the time period allowed by the Local Rules of this Court. Terra may file a reply memorandum, to the extent permitted by the Local Rules.

81. Standard of Review

a. Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 77 pertaining

to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by the U.S. EPA under this Consent Decree; the adequacy of the performance of work undertaken pursuant to this Consent Decree; and all other disputes that are accorded review on the administrative record, shall be accorded review under applicable principles of administrative law.

b. Other Disputes. Except as otherwise provided in this Consent Decree, in any other dispute brought under Paragraph 77, Terra shall bear the burden of demonstrating that its position complies with this Consent Decree and the Clean Air Act.

82. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Terra 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 as provided in Paragraph 66. If Terra does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VIII (Stipulated Penalties).

XI. INFORMATION COLLECTION AND RETENTION

83. The United States, the State Parties, and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into any of the Covered Nitric Acid Plants covered by this Consent Decree, at all reasonable times, upon presentation of proper credentials, for the purpose of monitoring compliance with any provision of this Consent Decree, including to:

a. monitor the progress of activities required under this Consent Decree;

- b. verify any data or information submitted to the United States or an Applicable State Party in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Terra or its representatives, contractors, or consultants in connection with their performance under this Consent Decree;
- d. obtain documentary evidence, including photographs and similar data, relevant to compliance with the terms of this Consent Decree; and
- e. assess Terra's compliance with this Consent Decree.

84. Terra shall be entitled to obtain or receive from the United States and/or the Applicable State Parties (1) splits of samples collected under Paragraph 83.c where feasible, and (2) copies of any sampling and analytical results, documentary evidence and data obtained by the United States, the Applicable State Parties, and their representatives pursuant to Paragraph 83 of this Consent Decree.

85. Until at least three years after the termination of this Consent Decree, Terra shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information, including records in electronic form in its or its contractors' or agents' possession or control, or that come into it or its contractors' or agents' possession or control, and that directly relates to Terra'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 or an Applicable State Party may request copies of any documents, records, or other information required to be maintained under this Paragraph.

86. At the conclusion of the information retention period specified in the preceding Paragraph, Terra shall notify the United States and the Applicable State Parties at least 90 days

prior to destroying any document(s), record(s), or other information subject to the requirements of the preceding Paragraph and, upon request by the United States or an Applicable State Party, Terra shall deliver any such document(s), record(s), or other information to the requesting Plaintiff. Terra may assert that certain documents, records, or other information otherwise subject to this Section XI are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Terra asserts such a privilege, it shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Terra. However, no documents, records, data, or other information required to be created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

87. Terra may also assert that information required to be provided under this Section is protected as CBI under 40 C.F.R. Part 2, or any corollary state laws and regulations.

88. 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 or any Applicable State Party pursuant to applicable federal or state laws, regulations, or permits, nor does it limit or affect any duty or obligation of Terra to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XII. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

89. Entry of this Consent Decree shall resolve all civil liability of Terra to the United States, the Applicable State Parties, and the Applicable State Agencies at the Covered Nitric Acid Plants that arose prior to the Date of Lodging of this Consent Decree with respect to any and all of the following claims:

a. Claims based on Part C of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470-7492, and the regulations promulgated thereunder at 40 C.F.R. § 52.21 or equivalent SIP approved regulation arising from any construction or modification at any Covered Nitric Acid Plant;

b. Claims based on Section 111 of Part A of Subchapter I of the Clean Air Act, 42 U.S.C. § 7411 and Subparts A and G of the regulations promulgated thereunder at 40 C.F.R. § 60 arising at any Covered Nitric Acid Plant;

c. Claims based on Sections 502(a), 503 and 504(a) of Title V of the Clean Air Act, 42 U.S.C. §§ 7661a(a), 7661b, and 7661c(a) for the failure to obtain permits containing applicable requirements triggered by any construction or modification at any Covered Nitric Acid Plant; and

d. Any State or local law counterparts to the provisions above in this Paragraph.

90. The United States and the Applicable State Parties reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 89. This Consent Decree shall not be construed to limit the rights of the United States or the Applicable State Parties to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal or state laws, regulations, or permit conditions, except as expressly specified in Paragraph 89. The United States and the Applicable State Parties further reserve all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, the Covered Nitric Acid Plants, whether related to the violations addressed in this Consent Decree or otherwise.

91. In any subsequent administrative or judicial proceeding initiated by the United

States or the Applicable State Parties for injunctive relief, civil penalties, other appropriate relief relating to the Covered Nitric Acid Plants or Terra's violations, Terra 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 or the Applicable State Parties 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 89 of this Section.

92. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Terra is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Terra's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States and the Applicable State Parties do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Terra's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Clean Air Act, or with any other provisions of federal, State, or local laws, regulations, or permits.

93. This Consent Decree does not limit or affect the rights of Terra or the United States or the Applicable State Parties 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 Terra, except as otherwise provided by law.

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

XIII. COSTS

95. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and the Applicable State Parties shall be entitled to collect the costs (including attorneys' fees), against Terra 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 Terra.

XIV. NOTICES

96. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree to be made to the United States, they shall be made in writing and addressed to the (i) United States Department of Justice; (ii) the U.S. EPA Headquarters; and (iii) the U.S. EPA Region where the relevant Covered Nitric Acid Plant is located. Notices, submissions, or communications required by this Consent Decree to be made to U.S. EPA shall be made in writing and addressed to (i) EPA Headquarters and (ii) the EPA Region where the relevant Covered Nitric Acid Plant is located. Notices, submissions, or communications required by this Consent Decree to be made to the Applicable State Party shall be made to the Applicable State Party for the State in which the relevant Covered Nitric Acid Plant is located. The contact information for the Parties to the Consent Decree is set forth in Attachment B.

97. Any Party may, by written notice to the other Parties, change its designated notice recipient(s) or notice address(es) provided in Attachment B. 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

98. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court.

XVI. RETENTION OF JURISDICTION

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

XVII. MODIFICATION

100. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by the United States, Terra, and the Applicable State Party, and filed with the Court as part of the record in this case. Where the modification constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court.

XVIII. TERMINATION

101. With respect to each Facility, after Terra has maintained continuous satisfactory compliance with the requirements of this Consent Decree for a period of one year after achieving compliance with all of the requirements of this Consent Decree (including demonstrating one year of compliance with the Short-Term Limits and Long-Term Limits in Section IV.A), has obtained all permits required by this Consent Decree, has paid the civil penalty, and any accrued stipulated penalties as required by this Consent Decree, Terra may serve upon the United States and the Applicable State Party a Request for Termination of the Consent Decree with respect to that Facility, together with all necessary supporting documentation, stating that Terra has satisfied those requirements.

102. If the United States, after consultation with the Applicable State Party, does not

agree that Terra has complied with all of the requirements of the Consent Decree for one year, Terra may invoke Dispute Resolution under Section X of this Decree. However, Terra shall not file such a motion until 90 days after service of its Request for Termination. On any such motion, Terra shall bear the burden of proving that the conditions necessary for termination of the Consent Decree at a Facility has been satisfied.

XIX. PUBLIC PARTICIPATION

103. This Consent Decree shall be lodged with the Court for a period of not less than 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. Terra consents to entry of this Consent Decree without further notice and agrees not to oppose entry of this Consent Decree by the Court unless the United States has notified Terra in writing that it no longer supports entry of this Consent Decree.

XX. SIGNATORIES/SERVICE

104. Each undersigned representative of Terra, the Applicable State Parties, and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice (or his or her designee) certifies 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 Consent Decree.

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

106. The Parties agree 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 further agree that Terra need not file a responsive pleading to the Complaint in this action unless the United States withdraws its consent to this Consent Decree and/or the Court expressly declines to enter this Consent Decree as written by the Parties.

XXI. INTEGRATION

107. This Consent Decree and its Attachments, which are attached to and hereby incorporated into this Consent Decree, constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree and shall 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 Consent Decree, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Consent 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 Consent Decree.

XXII. FINAL JUDGMENT

108. 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, the State Parties, and Terra. 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 _____, 2010.

UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF IOWA

WE HEREBY CONSENT to entry of the Consent Decree in United States et. al v. Terra Industries Inc. et. al.

FOR THE UNITED STATES OF AMERICA

Date: 4/3/11

IGNACIA S. MORENO
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

Date: 4/8/11

ELIZABETH L. LOEB
Environmental Enforcement Section
Environment and Natural Resources Division
P.O. Box 7611
Washington, D.C. 20044-7611
(202) 616-8916 (tel)
(202) 514-4180 (fax)

STEPHANIE M. ROSE
United States Attorney
Northern District of Iowa

LAWRENCE D. KUDEJ
Assistant U.S. Attorney
U.S. Department of Justice
Hach Building Suite 400
401 First St. SE
Cedar Rapids, IA 52401-1825
(319) 363-6333 (tel)
(319) 363-1990 (fax)

WE HEREBY CONSENT to entry of the Consent Decree in United States et. al v. Terra Industries Inc. et. al.

Date: 1/22/11

CYNTHIA GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Date: 1/21/11

ADAM M. KUSHNER
Director
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Date: 1/13/10

PHILLIP A. BROOKS
Director
Air Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

Date: 3/2/11

~~FOR~~ EPA REGION VII:

KARL BROOKS
Regional Administrator
U.S. Environmental Protection Agency
Region VII

Date: 2/17/11

DAVID COZAD
Regional Counsel
U.S. Environmental Protection Agency
Region VII

Date: 1/13/11

BELINDA L. HOLMES
Senior Counsel
U.S. Environmental Protection Agency
Region VII
901 N. 5th Street
Kansas City, KS 66101
(202) 551-7714

FOR EPA REGION IV:

Date: 2/16/11

GWENDOLYN KEYES FLEMING
Regional Administrator
U.S. Environmental Protection Agency
Region IV

Date: 2/8/2011

MARY J. WILKES
Regional Counsel and Director
Office of Environmental Accountability
U.S. Environmental Protection Agency
Region IV

Date: 2/8/2011

LUCIA C. MENDEZ
Associate Regional Counsel
U.S. Environmental Protection Agency
Region IV
Sam Nunn Atlanta Federal Center,
61 Forsyth Street, SW,
Atlanta, GA 30303-8960
404-562-9900

FOR EPA REGION VI:

Date: 1-20-11

~~AL ARMENDARIZ~~
Regional Administrator
U.S. Environmental Protection Agency
Region VI

Date: 1-12-11

~~SUZANNE MURRAY~~
Regional Counsel
U.S. Environmental Protection Agency
Region VI

Date: 1-20-11

~~JUSTIN LANNEN~~
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202
214-665-8130

WE HEREBY CONSENT to entry of the Consent Decree in United States et. al v. Terra Industries Inc. et. al.

FOR THE STATE OF IOWA

THOMAS J. MILLER
ATTORNEY GENERAL
OF THE STATE OF IOWA

~~DAVID R. SHERIDAN~~
Assistant Attorney General
Environmental Law Division
Iowa Department of Justice
Lucas State Office Building
321 E. 12th Street, Ground Flr.
Des Moines, IA 50319
(515) 281-5351

WE HEREBY CONSENT to entry of the Consent Decree in United States et. al v. Terra Industries Inc. et. al.

FOR DEFENDANTS:

TERRA INDUSTRIES INC.,
PORT NEAL CORPORATION,
TERRA INTERNATIONAL (OKLAHOMA) INC.,
TERRA NITROGEN, LIMITED PARTNERSHIP, by
Terra Nitrogen GP Inc., its General Partner, and
TERRA MISSISSIPPI NITROGEN, INC.

Date: 2/11/11

W. ANTHONY WILL
Vice President, Manufacturing and Distribution
In each instance
4 Parkway North, Suite 400
Deerfield, IL 60015
Phone: (847) 405-2512
Email:

ATTACHMENT A

Applicable NO_x Emission Limits, Monitoring, Performance Testing, O&M Plan, Permit Submittal, and Annual Progress Report*
Requirements and Deadlines

U.S. et. al. v. Terra Nitrogen, Limited Partnership et. al.

Covered Nitric Acid Plant	Submittal Deadline for Documentation of How Terra Intends to Comply	O&M Plan Submittal Deadline	Deadline for Installation, Certification and Calibration of CEMS	Deadline to Conduct Performance Test	O&M Plan Implementation Deadline	Short-Term NO_x Limit (Compliance Date)	Permit Application Submittal Deadline	Long-Term NO_x Limit (Compliance Date)
Port Neal #1	July 1, 2012	June 1, 2013	June 30, 2013	June 30, 2013	June 30, 2013	1.0 lb/ton (June 30, 2013)	June 30, 2012	0.60 lb/ton (June 30, 2014)
Port Neal #2	July 1, 2011	March 1, 2012	March 31, 2012	March 31, 2012	March 31, 2012	1.0 lb/ton (March 31, 2012)	October 1, 2011	0.60 lb/ton (March 31, 2013)
Verdigris #1	July 1, 2013	June 1, 2014	June 30, 2014	June 30, 2014	June 30, 2014	1.0 lb/ton (June 30, 2014)	December 31, 2014	0.60 lb/ton (June 30, 2015)
Verdigris #2	July 1, 2012	June 1, 2013	June 30, 2013	June 30, 2013	June 30, 2013	1.0 lb/ton (June 30, 2013)	December 31, 2013	0.60 lb/ton (June 30, 2014)
Woodward #1	July 1, 2011	March 31, 2012	March 31, 2012	March 31, 2012	March 31, 2012	1.0 lb/ton (March 31, 2012)	September 30, 2012	0.60 lb/ton (March 31, 2013)
Yazoo City #6	June 30, 2013	June 30, 2014	June 30, 2014	June 30, 2014	June 30, 2014	1.0 lb/ton (June 30, 2014)	December 31, 2014	0.60 lb/ton (March 31, 2015)
Yazoo City #8	July 1, 2013	June 1, 2014	June 30, 2014	June 30, 2014	June 30, 2014	1.0 lb/ton (June 30, 2014)	December 31, 2014	0.60 lb/ton (June 30, 2015)
Yazoo City #9	July 1, 2011	March 1, 2012	March 31, 2012	March 31, 2012	March 31, 2012	1.0 lb/ton (March 31, 2012)	September 30, 2012	0.60 lb/ton (March 31, 2013)
Yazoo City #10	July 1, 2011	March 1, 2012	March 31, 2012	March 31, 2012	March 31, 2012	1.0 lb/ton (March 31, 2012)	September 30, 2012	0.60 lb/ton (March 31, 2013)

* Pursuant to Paragraph 40 of the Consent Decree, Terra shall submit semi-annual progress reports no later than January 31 and July 31 of each year, with the first semi-annual report due on July 31, 2011.

ATTACHMENT B

**Contact Information for the Parties to
U.S. et. al. v. Terra Industries, Inc., et. al.**

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. 90-5-2-1-06944/1

Notice or submission to the U.S. EPA that concerns any or all of the Covered Nitric Acid Plants:

Air Enforcement Division Director
U.S. Environmental Protection Agency
Office of Civil Enforcement
Air Enforcement Division
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW
Mail Code: 2242A
Washington, DC 20460

and

Robert Parrish
U.S. Environmental Protection Agency
Office of Civil Enforcement
Air Enforcement Division
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Mail Code 2242A
Washington, DC 20460

Including an electronic copy to:

Notice or submission to the U.S. EPA that concerns the Yazoo City Facility:

Lucia Mendez
U.S. Environmental Protection Agency
Region 4
Atlanta Federal Center
61 Forsyth Street SW
Mailcode 9T25
Atlanta, GA 30303

and

Rosalyn Hughes
U.S. Environmental Protection Agency
Region 4
Atlanta Federal Center
61 Forsyth Street SW
Mailcode 9T25
Atlanta, GA 30303

Notice or submission to the U.S. EPA that concerns either the Woodward or Verdigris Facilities:

Justin Lannen
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Suite 1200
Mailcode 6EN-EA
Dallas, TX 75202

and

John Jones
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Suite 1200
Mailcode 6EN-EA
Dallas, TX 75202

Notice or submission to the U.S. EPA that concerns the Port Neal Facility:

Belinda Holmes
U.S. Environmental Protection Agency
Region 7
901 North 5th Street
Mailcode AWMD\APCO
Kansas City, KS 66101

and

Bill Peterson
U.S. Environmental Protection Agency
Region 7
901 North 5th Street
Mailcode AWMD\APCO
Kansas City, KS 66101

Notice or submission to Mississippi and/or MDEQ concerning the Yazoo City Facility:

Chris Sanders, Chief
Environmental Compliance and Enforcement Division
Mississippi Department of Environmental Quality
P. O. Box 2261
Jackson, MS 39225

Notice or submission to Oklahoma and/or Oklahoma DEQ concerning either the Woodward or Verdigris Facilities:

Eddie Terrill, Director
Oklahoma Department of Environmental Quality
Air Quality Division
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

and

Robert D. Singletary
Office of General Counsel
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

Notice or submission to Iowa and/or Iowa DNR concerning the Port Neal Facility:

Brian Hutchins, Supervisor
Compliance & Monitoring
Air Quality Bureau, Iowa DNR
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324

Notice or response to Terra:

Jim Schellhorn
Director of Environmental, Health & Safety
6606 East 540 Road
Claremore, OK 74019

Including electronic copies to:

and

Tony Will
Vice President, Manufacturing and Distribution
CF Industries Holdings, Inc.
4 Parkway North, Suite 400
Deerfield, IL 60015

Including electronic copies to:

and

Douglas C. Barnard, Esq.
General Counsel
CF Industries Holdings, Inc.
4 Parkway North, Suite 400
Deerfield, IL 60015

Including electronic copies to:

and

Michael A. Peters, Esq.

Ryan Whaley Coldiron Shandy PLLC
900 Robinson Renaissance
119 N. Robinson
Oklahoma City, OK 73102

Including electronic copies to:

With a copy to each Applicable Covered Facility as follows:

As to the Port Neal Facility:

Nick DeRoos
Plant Manager
1182 260th Street
P.O. Box 100
Sergeant Bluff, IA 51054

Including electronic copies to:

As to the Verdigris Facility:

Dallas Robinson
Plant Manager
6606 East 540 Road
Claremore, OK 74019

Including electronic copies to:

As to the Woodward Facility:

Steven Moore
Plant Manager
1000 Terra Drive
Woodward, OK 73801

Including electronic copies to:

As to the Yazoo City Facility:

Carl Wallace
Plant Manager
4608 Hwy. 49 East
Yazoo City, MS 39194

Including electronic copies to:

ATTACHMENT C

TERRA NITRIC ACID PLANT CEMS PLAN U.S. et. al. v. Terra Industries, Inc., et. al.

CEMS Plan for NO_x Emissions

**Terra Industries Inc., Terra Nitrogen, Limited Partnership, Terra International (Oklahoma) Inc., Port Neal Corporation, and Terra Mississippi Nitrogen, Inc.
Covered Nitric Acid Plants**

Principle

This CEMS Plan is the mechanism for determining compliance with the Short-Term NO_x Limit and Long-Term NO_x Limit applicable to each Covered Nitric Acid Plant as specified in the Consent Decree and is used to evaluate the compliance status with the NSPS NO_x limits. The methodology described in this CEMS Plan will provide a continuous indication of compliance with the above-referenced NO_x emission limits established in the Consent Decree by accurately determining the emission rate in terms of pounds of NO_x emitted per ton of 100% Nitric Acid Produced (lb/ton) as a rolling 3-hour average and a rolling 365-day average. The CEMS will utilize equipment to measure stack NO_x concentration and the stack volumetric flow rate. From this data, real-time, accurate, and quality controlled measurements of the mass NO_x emission rate can be obtained.

Definitions

Terms used in this CEMS Plan that are defined in the Clean Air Act (“CAA”) or in Federal or state regulations promulgated pursuant to the CAA shall have the meaning assigned to them in the CAA or such regulations, unless otherwise defined in the Consent Decree. The terms used in this CEMS Plan that are defined in the Consent Decree shall have the meaning assigned to them therein. The following definitions specifically apply for purposes of this CEMS Plan.

- “CEMS” or “Continuous Emission Monitoring System” shall mean the total equipment, required under this CEMS Plan, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.
- “Day,” “day,” or “calendar day” shall mean a calendar day.
- “Long-Term NO_x Limit” shall mean a 365-day rolling average NO_x emission limit (rolled daily) expressed as pounds of NO_x emitted per ton of 100% Nitric Acid Produced (“lb/ton”); compliance with the Long-Term NO_x Limit shall be calculated in accordance with this CEMS Plan. The Long-Term NO_x Limit applies at all times, including during periods of Startup, Shutdown, or Malfunction.
- “Malfunction” shall mean, consistent with 40 C.F.R. § 60.2, any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, but shall not include failures that are caused in whole or in part by poor maintenance or careless operation.

- “NSPS NO_x Limit” shall mean the NO_x emission limit expressed as 1.5 kg of NO_x per metric ton of 100% Nitric Acid Produced (3 lb per ton) specified at 40 C.F.R. § 60.72(a)(1).
- “NO_x” shall mean the pollutant nitrogen oxides. For the purposes of calculating mass emission rates, NO_x has a molecular weight of 46.0055 lb/lb-mol.
- “NO_x stack analyzer” shall mean that portion of the CEMS that senses NO_x and generates an output proportional to the NO_x concentration.
- “100% Nitric Acid Produced” shall mean the quantity of a nitric acid product manufactured by a Nitric Acid Plant multiplied by the concentration of actual nitric acid in the product. For example, if a Nitric Acid Plant produces 100 tons of a 54% nitric acid product, this equals 54 tons of 100% Nitric Acid Produced.
- “One-hour period” and “1-hour period” shall mean any 60-minute period commencing on the hour.
- “One-minute measurement” shall mean any single measurement or the arithmetic average of multiple measurements of a parameter during a one-minute period on-the-clock.
- “Operating Periods” shall mean periods during which a Covered Nitric Acid Plant is producing nitric acid and NO_x is emitted, including periods of Startup, Shutdown and Malfunction.
- “Short-Term NO_x Limit” shall mean a 3-hour rolling average NO_x emission limit (rolled hourly) expressed in terms of pounds of NO_x emitted per ton of 100% Nitric Acid Produced (“lb/ton”); compliance with the Short-Term NO_x Limit shall be calculated in accordance with this CEMS Plan. The Short-Term NO_x Limit does not apply during periods of Startup, Shutdown, or Malfunction.
- “Shutdown” shall mean the cessation of nitric acid production operations of a Covered Nitric Acid Plant for any reason. Shutdown begins at the time the feed of ammonia to the Covered Nitric Acid Plant ceases and ends 3 hours later.
- “Stack flowmeter” shall mean that portion of the CEMS that senses the volumetric flow rate and generates an output proportional to that flow rate.
- “Startup” shall mean the process of initiating nitric acid production operations of a Covered Nitric Acid Plant. Startup begins 1 hour prior to the initiation of the feed of ammonia to the Covered Nitric Acid Plant and ends no more than 5 hours after such initiation of the feed of ammonia.
- “Ton” or “tons” shall mean short ton or short tons. One Ton equals 2,000 pounds.

Emissions Monitoring

Emissions monitoring under this CEMS Plan will be done using a NO_x stack analyzer and a stack flowmeter on each Covered Nitric Acid Plant. Except for periods of CEMS breakdowns, analyzer malfunctions, repairs, and required quality assurance or quality control activities (including calibration checks and required zero and span adjustments), Terra will conduct continuous monitoring pursuant to this CEMS Plan at each Covered Nitric Acid Plant during all Operating Periods as follows:

- Once every minute, the NO_x stack analyzer will measure the stack NO_x concentration, in parts per million by volume, dry basis (ppmvd) and the stack flowmeter will measure the volumetric flow rate in dry standard cubic feet per minute (DSCFM)¹.
- For every 1-hour period (60-minute period commencing on the hour), the CEMS will reduce the 60 one-minute measurements generated by each analyzer by taking the arithmetic average of the previous 60 measurements during the 1-hour period. This data will be used to calculate the 3-hour average NO_x emission rate.

Backup Monitoring Procedure for Long-Term NO_x Limit

In the event that the NO_x stack analyzer and/or stack flowmeter is/are not available or is/are out-of-control, Terra will implement the following backup monitoring procedure. The resulting data will be used to calculate the 365-day average NO_x emission rate.

- Other than as specified below for a CEMS outage or out-of-control period less than 24 consecutive hours, Terra will comply with the following requirements to fill in data gaps in the array:
 - Exit stack gas will be sampled and analyzed for NO_x at least once every three (3) hours, during all Operating Periods. Sampling will be conducted by making physical measurements of the NO_x concentration in the gas stream to the main stack using alternative/non-CEMS methods (*e.g.*, through the use of a portable analyzer or non-certified NO_x stack analyzer). The reading obtained will be substituted for the 180 (or less) one-minute measurements that would otherwise be utilized if the CEMS were operating normally. Alternatively, Terra may conduct the required sampling and analysis using a redundant certified NO_x analyzer.
 - Stack volumetric flow rate will be estimated using engineering judgment.
- During required quality assurance or quality control activities (including calibration checks and required zero and span adjustments) of the CEMS and stack flowmeter, Terra may utilize the previous calendar day average value to fill in the data gaps.

¹ For the purposes of the calculations under this CEMS Plan, as-is volumetric flow rate measurements will be assumed to be dry. However, Terra may adjust for any moisture contained in the stack gas if the Covered Nitric Acid Plant is equipped with a continuous moisture analyzer.

- If any one or more than one of the CEMS or stack flowmeter is/are not operating for a period of less than 24 consecutive hours due to breakdowns, malfunctions, repairs, or out-of-control period of the same, Terra may utilize the previous calendar day average value recorded for each to fill in the data gaps.

Production Data

Following each calendar day at each Covered Nitric Acid Plant, Terra will record the quantity of nitric acid produced during that day and the average strength of the nitric acid produced during that day. From this information, Terra will calculate the 100% Nitric Acid Produced for that day, in units of tons per day.

Conversion Factor

During each performance test for each Covered Nitric Acid Plant required under Paragraph 24 of the Consent Decree, Terra will develop a conversion factor, in units of lb/ton of 100% Nitric Acid Produced per ppmvd consistent with 40 C.F.R. § 60.73(b).

Emissions Calculations

Rolling 3-Hour Average

Compliance with the Short-Term NO_x Limit shall be based on a rolling 3-hour average (rolled hourly). For purposes of calculating a rolling 3-hour average NO_x emission rate, the CEMS will maintain an array of the 3 most recent and contiguous 1-hour period average measurements of stack NO_x concentration. Every hour, it will add the most recent 1-hour period average measurement to the array and exclude the oldest 1-hour period average measurement. Data generated using the backup monitoring procedure, specified above, need not be included in this calculation.

The rolling 3-hour average lb/ton NO_x emission rate (E_{3hravg}) will then be calculated every hour using Equation 1.

Equation 1:

$$E_{3hravg} = \frac{K \cdot \sum_{i=1}^3 \cdot C_{NOx i}}{3}$$

Where:

- $C_{NO_x i}$ = Arithmetic average of 60 one-minute measurements of stack NO_x concentration, parts per million by volume, dry basis (ppmvd) in a 1-hour period.
- K = Conversion factor determined during most recent NO_x performance test (lb/ton of 100% Nitric Acid Produced per ppm)
- E_{3hravg} = 3-hour average lb NO_x per ton 100% Nitric Acid Produced

Rolling 365-Day Average

Compliance with the Long-Term NO_x Limit shall be based on a rolling 365-day average (rolled daily). For the purposes of calculating the 365-day average NO_x emission rate each calendar day at each Covered Nitric Acid Plant, Terra will maintain an array of the mass emissions (lb/day) of NO_x (calculated using Equation 2) and the 100% Nitric Acid Produced for that day (tons/day) and the preceding 364 days. Each subsequent day, the data from that day will be added to the array, and the data from the oldest day will be excluded.

For the purposes of calculating daily mass emission rate, the CEMS will maintain an array of each one-minute measurement of the NO_x concentration (ppmvd) at the exit stack and each one-minute measurement of volumetric flow rate (DSCFM) of the exit stack over each day. In the event that one or more of the CEMS and stack flowmeter is/are not available, Terra will use the backup monitoring procedure, specified above, to fill in the data gaps.

Following each calendar day, the daily NO_x mass emissions will be calculated using Equation 2.

Equation 2:

$$M_{NO_x Day} = 1.193 \times 10^{-7} \cdot \sum_{i=1}^n Q_{Stack i} \cdot C_{NO_x i}$$

Where:

- $C_{NO_x i}$ = One-minute measurement of stack NO_x concentration, ppmvd, at interval “i”
- $Q_{Stack i}$ = One-minute measurement of stack volumetric flow rate, DSCFM, at interval “i”
- 1.193×10^{-7} = Conversion factor in units of pounds per standard cubic foot (lb/SCF) NO_x per ppm
- $M_{NO_x Day}$ = Mass emissions of NO_x during a calendar day, lb
- n = Number of minutes of Operating Period in a calendar day

Following each calendar day, the NO_x emission rate as lb/ton, averaged over a rolling 365-day period ($E_{365-Day Avg}$) will be calculated using Equation 3.

Equation 3:

$$E_{365\text{-Day Avg}} = \frac{\sum_{d=1}^{365} M_{NO_x \text{ Day } d}}{\sum_{d=1}^{365} P_d}$$

Where:

- $M_{NO_x \text{ Day } d}$ = Mass emissions of NO_x during a calendar day “d”, lb
 P_d = 100% Nitric Acid Produced during a calendar day “d”, tons
 $E_{365\text{-Day Avg}}$ = 365-day rolling average lb NO_x per ton of 100% Nitric Acid Produced

Rounding of Numbers resulting from Calculations

Upon completion of the calculations, the final numbers shall be rounded as follows:

- E_{3hravg} : Rounded to the nearest tenth.
 $E_{365\text{-Day Avg}}$: Rounded to the nearest hundredth.

The numbers “5”-“9” shall be rounded up, and the numbers “1”-“4” shall be rounded down. Thus, “1.05” shall be rounded to “1.1”, and “1.04” shall be rounded to “1.0”.

Compliance with Consent Decree NO_x Limits

Short-Term NO_x Limits

The Short-Term NO_x Limits do not apply during periods of Startup, Shutdown, or Malfunction. During all other Operating Periods at a Covered Nitric Acid Plant, Terra will be in compliance with the Short-Term NO_x Limit specified in the Consent Decree if E_{3hravg} does not exceed 1.0 lb of NO_x per ton of 100% Nitric Acid Produced. If Terra contends that any 3-hour rolling average emission rate is in excess of 1.0 lb/ton due to the inclusion of hours of Startup, Shutdown or Malfunction in the 3-hour period, Terra shall recalculate E_{3hravg} to exclude measurements recorded during the period(s) of the claimed Startup, Shutdown or Malfunction(s). Nothing in this CEMS Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a Covered Nitric Acid Plant would have been in compliance with the Short-Term Limit if the appropriate performance test or compliance procedure had been performed.

NSPS NO_x Limits

The NSPS NO_x Limit does not apply during periods of Startup, Shutdown, or Malfunction. During all other Operating Periods at a Covered Nitric Acid Plant, Terra will be in compliance with the NSPS Limit if E_{3hravg} does not exceed 3.0 lb of NO_x per ton of 100% Nitric Acid Produced. If Terra contends that any 3-hour rolling average emission rate is in excess of 3.0 lb/ton due to the inclusion of hours of Startup, Shutdown or Malfunction in the 3-hour period, Terra shall recalculate E_{3hravg} to exclude measurements recorded during the period(s) of the claimed Startup, Shutdown or Malfunction(s). Nothing in this CEMS Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a Covered Nitric Acid Plant would have been in compliance with the NSPS NO_x Limit if the appropriate performance test or compliance procedure had been performed.

Long-Term NO_x Limits

Terra will be in compliance with the Long-Term NO_x Limit specified in the Consent Decree if $E_{365-Day Avg}$ does not exceed 0.60 lb of NO_x per ton of 100% Nitric Acid Produced. The Long-Term NO_x Limit applies at all times, including during periods of Startup, Shutdown, or Malfunction.

Retention of All CEMS Data, including Data during Startup, Shutdown, and Malfunction

Terra will retain all data generated by the NO_x analyzer and stack flowmeter, including all data generated during Startup, Shutdown, and/or Malfunction (“SSM”) at each Covered Nitric Acid Plant in accordance with Section XI of the Consent Decree.

Analyzer Specifications

The NO_x stack analyzers and the stack flowmeter required under this CEMS Plan at each Covered Nitric Acid Plant will meet the following specifications:

Table 1

Analyzer	Parameter	Location	Range/Span Value
NO _x Stack Analyzers	NO _x , ppm by volume, dry basis	Stack	Dual range: Normal: 0 – 200 ppm NO _x SSM: 0 – 5000 ppm NO _x
Stack Flowmeter	Volumetric flow rate, SCFM	Stack	0 to 125% of the maximum expected volumetric flow rate

The NO_x stack analyzers will meet all applicable requirements of 40 C.F.R. §§ 60.11, 60.13, 40 C.F.R. Part 60, Appendix B, Performance Specification 2, and the Quality Assurance and Quality Control Procedures in 40 C.F.R. Part 60, Appendix F, Procedure 1. It should be noted, however, that the daily drift test requirement at 40 C.F.R. § 60.13(d) and the requirements of Appendix F apply only to the normal range of the NO_x stack analyzers. The SSM range of the NO_x stack analyzers will be evaluated once each calendar quarter to verify accuracy.

The stack flowmeters will meet 40 C.F.R. Part 60, Appendix B, Performance Specification 6 and will be evaluated once each calendar quarter and during the RATA of the NO_x stack analyzers to verify accuracy.

Compliance with the NSPS: 40 C.F.R. Part 60, Subpart G

In addition to the requirements in this CEMS Plan, Terra also will comply with all of the requirements of the NSPS relating to monitoring at each Covered Nitric Acid Plant except that, pursuant to 40 C.F.R. § 60.13(i), this CEMS Plan will supersede the following provisions of 40 C.F.R. Part 60, Subpart G:

- The requirement at 40 C.F.R. § 60.73(a) that the NO_x stack analyzers have a span value of 500 ppm. In lieu of this, Terra will utilize the span values specified in Table 1 of this CEMS Plan; and
- The requirement at 40 C.F.R. § 60.73(a) that pollutant gas mixtures under Performance Specification 2 and for calibration checks under 40 C.F.R. § 60.13(d) be nitrogen dioxide (NO₂). Terra will use calibration gases containing NO and/or NO₂ as appropriate to assure accuracy of the NO_x stack analyzers except where verified reference cells are used in accordance with Performance Specification 2.

ATTACHMENT D

COMPENSATORY EMISSIONS REDUCTIONS APPLICABILITY & COMPLIANCE DETERMINATION U.S. et. al. v. Terra Industries, Inc., et. al.

Pursuant to Paragraph 69 of the Consent Decree, the United States and/or an Applicable State Party may elect to seek Compensatory Emissions Reductions for excess NO_x emissions in addition to injunctive relief or stipulated penalties. The following sets forth the basis for determining when and under what circumstances Compensatory Emissions Reductions are applicable as well as the amount, nature, and duration of Compensatory Emissions Reductions which may be required.

“Compensatory Emissions Reductions” are reductions in emissions that occur after the date of the emission exceedance and that reduce emissions by at least an amount equal to excess emissions caused by the emission exceedance.

Applicability

In accordance with Paragraphs 9 through 17 of the Consent Decree, each Covered Nitric Acid Plant is subject to a Long-Term NO_x Limit of 0.60 pounds of NO_x emitted per ton of 100% Nitric Acid Produced (“lb/ton”) as of a specified compliance date. Compliance with the Long-Term NO_x Limit is determined based on a 365-day rolling average (rolled daily) calculated in accordance with the CEMS Plan contained in Attachment C to the Consent Decree.

Compensatory Emissions Reductions pursuant to Paragraph 69 of the Consent Decree may be sought if:

1. The resulting 365-day rolling average NO_x emission rate for a Covered Nitric Acid Plant is determined to exceed the Long-Term NO_x Limit, and
2. Mass emissions of NO_x represented by the exceedance (as determined below) are greater than one (1) ton.

Calculation of Excess NO_x Emissions

The determination of the mass emissions of NO_x in excess of a Long-Term NO_x Limit shall be calculated as follows:

$$EX_{NO_x} = M_{NO_x \text{ 365-Day Total}} / 2,000 - P_{365\text{-Day Total}} \times 0.60 \text{ lb/ton} / 2,000$$

Where:

$$EX_{NO_x} = \text{Excess NO}_x \text{ emissions in a 365-day period, tons}$$
$$M_{NO_x \text{ 365-Day Total}} = \text{Mass NO}_x \text{ emissions 365-day period, lb}$$

$P_{365\text{-Day total}} = 100\%$ nitric acid produced during a rolling 365-day period, tons

Timeframe & Manner of Achieving Compensatory Emissions Reductions

Terra shall have no less than 365 days and no more than 730 days from the date Terra receives a written demand for Compensatory Emissions Reductions by the United States and/or an Applicable State Party, to achieve such Compensatory Emissions Reductions unless such timeframe is extended by agreement of the Parties.

For purposes of achieving Compensatory Emissions Reductions, Terra may use any method of reducing emissions onsite or offsite from where the violations occurred that is approved by U.S. EPA and the Applicable State Party. However, the following steps may be used to achieve Compensatory Emissions Reductions without further approval:

1. Operation of a Covered Nitric Acid Plant located at the facility where the excess emissions occurred at an emission rate below the Long-Term NO_x Limit (with available Compensatory Emissions Reductions being calculated as the difference (on a mass basis) between the actual emissions rate over a specified period and Long-Term NO_x Limit); and
2. Temporary cessation of operation of any emission unit that emits NO_x and is at the facility where the excess emissions occurred, where the temporary cessation of operation was not otherwise necessary (with available Compensatory Emissions Reductions being calculated as the expected mass emissions of NO_x had the emission unit operated during the specified timeframe). The above provision shall not be interpreted as precluding Terra from inspecting and/or conducting work on an emission unit which has temporarily ceased operation for purposes of achieving Compensatory Emissions Reductions.

Compensatory Emissions Reductions may be satisfied through any other steps approved in writing by U.S. EPA and the Applicable State Party. In making any decision to approve or disapprove proposed steps for achieving Compensatory Emissions Reductions U.S. EPA and the Applicable State Party will consider the following factors: 1) the pollutant(s) that will be reduced, 2) the location of the expected emissions reductions (i.e. the expected environmental benefit to the area where the excess emissions occurred), 3) the degree to which the emissions from such steps are quantifiably less than what would otherwise be expected; 4) the time period in which such reductions will be achieved, and 5) the overall expected benefit to human health and the environment.

Effect

Compensatory Emissions Reductions shall be calculated and determined on a mass emission basis (*i.e.*, tons of NO_x) and shall not result in the amendment of or impact the Short-Term NO_x Limit or Long-Term NO_x Limit applicable to a Covered Nitric Acid Plant under the Consent Decree whether or not the emissions reductions are achieved at a Covered Nitric Acid Plant. Further, Compensatory Emissions Reductions shall not be permanent in nature and shall not require or result in the modification or amendment of any NO_x emission limitation contained within any air quality permit issued by the United

States, an Applicable State Party, and/or an Applicable State Agency, unless otherwise agreed by the Parties.