

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA,
Plaintiff, and

STATE OF IOWA, ET AL.,
Plaintiff-Intervenors)

v.)

GUARDIAN INDUSTRIES CORP.,
Defendant.

Civil No. _____

CONSENT DECREE

TABLE OF CONTENTS

I. JURISDICTION AND VENUE3

II. APPLICABILITY4

III. DEFINITIONS.....4

IV. COMPLIANCE REQUIREMENTS.....15

A. EMISSIONS CONTROLS AND LIMITS AT THE KINGSBURG FACILITY.....15

B. NO_x EMISSION CONTROLS, LIMITS, AND COMPLIANCE SCHEDULE.....15

C. SO₂ EMISSION CONTROLS, LIMITS, AND COMPLIANCE SCHEDULE.....23

D. INCREASED PRODUCTION CAPACITY.....29

E. PM EMISSION CONTROLS, LIMITS, AND COMPLIANCE SCHEDULES29

E. H₂SO₄ CONTROLS, LIMITS, AND COMPLIANCE SCHEDULES31

F. SHUTDOWN OF FURNACES.....32

G. CEMS INSTALLATION, CALIBRATION, CERTIFICATION, MAINTENANCE,
AND OPERATION.32

H. ALTERNATIVE PRIMARY CONTROL TECHNOLOGY.....37

I. ABNORMALLY LOW PRODUCTION RATE DAYS.....40

J. RECORDKEEPING.....41

V. ENVIRONMENTAL MITIGATION42

VI. CIVIL PENALTY44

VII. PERMITS.....45

VIII. EMISSION CREDIT GENERATION.....47

IX. REPORTING REQUIREMENTS49

X.	STIPULATED PENALTIES	52
XI.	FORCE MAJEURE	57
XII.	DISPUTE RESOLUTION	59
XIII.	INFORMATION COLLECTION AND RETENTION	62
XIV.	EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS	64
XV.	COSTS	66
XVI.	NOTICES	66
XVII.	SALES OR TRANSFER OF OPERATIONAL OR OWNERSHIP INTERESTS	70
XVIII.	EFFECTIVE DATE	71
XIX.	RETENTION OF JURISDICTION	71
XX.	MODIFICATION	72
XXI.	TERMINATION	72
XXII.	PUBLIC PARTICIPATION	73
XXIII.	SIGNATORIES/SERVICE	73
XXIV.	INTEGRATION	74
XXV.	APPENDICES	74
XXVI.	FINAL JUDGMENT	75

WHEREAS, the United States Environmental Protection Agency (“EPA”), has selected the glass manufacturing industry, including float glass manufacturing facilities, as a national enforcement priority under the Clean Air Act’s (“CAA” or “Act”), 42 U.S.C. § 7401 *et seq.*, New Source Review program;

WHEREAS, Guardian Industries Corp. (“Guardian”) owns and operates float glass manufacturing facilities located in: Carleton, Michigan; Corsicana, Texas; DeWitt, Iowa; Jefferson Hills, Pennsylvania; Geneva, New York; Kingsburg, California; and Richburg, South Carolina;

WHEREAS, concurrently with the lodging of this Consent Decree, the United States of America, on behalf of the EPA, and Plaintiff-Intervenors, the State of Iowa, the State of New York, and the San Joaquin Valley Unified Air Pollution Control District (“District”) (collectively, the “Plaintiff-Intervenors”) filed Complaints in this action seeking injunctive relief and the assessment of civil penalties against the Defendant, Guardian, for alleged violations of the CAA with respect to emissions of nitrogen oxides (“NO_x”), sulfur dioxide (“SO₂”), sulfuric acid (“H₂SO₄”), and particulate matter (including PM, PM₁₀, and PM_{2.5}) (“PM”) at its float glass manufacturing facilities;

WHEREAS, the Complaints allege that Guardian violated and/or continues to violate the Prevention of Significant Deterioration (“PSD”) provisions in Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, the permitting requirements of CAA Subchapter V (“Title V”), 42 U.S.C. §§ 7661-7661f, regulations implementing those CAA provisions, and federally-enforceable state implementation plans (“SIPs”) developed by California, Iowa, Michigan, New York, Pennsylvania, South Carolina, and Texas;

WHEREAS, the Complaints allege that Guardian made major modifications to its float glass manufacturing facilities without obtaining the required CAA permits and without complying with the CAA's PSD requirements regarding installing pollution control technology, emission limits, monitoring, record-keeping, and reporting;

WHEREAS, the United States, Plaintiff-Intervenors, and Guardian anticipate that the installation and operation of pollution control technology and other measures required pursuant to this Consent Decree will achieve significant reductions of emissions from the Covered Facilities, thereby significantly improving air quality;

WHEREAS, the objectives of the Parties in entering into this Consent Decree are to further the purposes of the CAA as described in CAA Section 101, 42 U.S.C. § 7401, to protect public health, public welfare, and the environment, and to have Guardian perform the actions described below, and to ensure that Guardian achieves and maintains compliance with the CAA, applicable state and local laws, and the terms and conditions of applicable CAA permits;

WHEREAS, the Parties recognize that Guardian may purchase additional float glass facilities and it may be appropriate to consider modifying the Consent Decree to add such facilities.

WHEREAS, EPA issued a notice of violation ("NOV") to Guardian with respect to such allegations on May 27, 2015;

WHEREAS, EPA provided Guardian and the San Joaquin Valley Unified Air Pollution Control District, State of California, State of Iowa, State of Michigan, State of New York, Commonwealth of Pennsylvania, State of South Carolina, and State of Texas with actual notice of the alleged violations, in accordance with Sections 113(a)(1) and (b) of the CAA, 42 U.S.C. §§ 7413(a)(1) and (b);

WHEREAS, Guardian has waived any applicable federal or state requirements of notice of the alleged violations;

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

WHEREAS, Guardian consents to the simultaneous filing of the Complaints and lodging of this Consent Decree against Guardian, without any adjudication of any issue of fact or law;

WHEREAS, Guardian has denied and continues to deny the violations alleged in the Complaint and NOV; and

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

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 113(b) of the Act, 42 U.S.C. § 7413(b), and it has jurisdiction over the Parties. Pursuant to 28 U.S.C. § 1367, this Court has supplemental jurisdiction over the state and local law claims asserted by the Plaintiff-Intervenors. Venue lies in this District pursuant to Section 113(b) of the Act, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because Guardian resides, conducts business, and has its corporate headquarters located in this judicial district. For purposes of this Consent Decree or any action to enforce this Consent Decree, Guardian consents to venue in this judicial district and to this Court's jurisdiction over this Consent Decree, any such action to enforce the Consent Decree, and over Guardian.

2. Solely for purposes of this Consent Decree, Guardian agrees that the Complaints state claims upon which relief may be granted pursuant to the Clean Air Act, its implementing regulations, and the cited provisions of state law.

II. APPLICABILITY

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

4. For work performed after the Effective Date, Guardian shall provide a copy of this Consent Decree to all vendors, suppliers, consultants, contractors, agents, and any other company or organization retained to perform any of the work required by this Consent Decree. Notwithstanding any retention of contractors, subcontractors or agents to perform any work required under this Consent Decree, Guardian shall be responsible for ensuring that all work is performed in accordance with the requirements of this Consent Decree.

5. In any action to enforce this Consent Decree, Guardian 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, unless Guardian establishes that such failure resulted from a Force Majeure event and Guardian has complied with all the requirements of Section XI of this Consent Decree.

III. DEFINITIONS

6. Terms used in this Consent decree that are defined in the CAA or in regulations promulgated pursuant to or authorized by the CAA shall have the meanings assigned to them in the CAA or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. "Abnormally Low Production Rate" shall mean a glass production rate for a Furnace that is at or below the production rate set forth in Table 7, which reflects 35 percent of the permitted production rate.

b. "Abnormally Low Production Rate Day" shall mean any Operating Day where glass production at a Furnace occurs at or below the applicable Abnormally Low Production Rate for at least one continuous hour.

c. "Ammonia Slip" shall mean emissions of unreacted ammonia that result from incomplete reaction of NO_x and the reagent.

d. "Applicable State(s)" shall mean the state, commonwealth, or local authority that has jurisdiction over a Covered Facility.

e. "Calendar Year" shall mean the period commencing on January 1 and ending on December 31 of the same year.

f. "Canal Change" shall mean the replacement of a refractory device used to transfer the molten glass from the Furnace to the forming process. Canal Change includes the stoppage of molten glass into the forming process, replacement and installation of a new canal, heat-up of the canal, and restart of production.

g. "CD Emission Reductions" shall mean any emission reductions that are generated or result from complying with the requirements of Section IV (Compliance Requirements) and Section V (Environmental Mitigation) of the Consent Decree, including, but not limited to, installing and using any Control Devices required by the Consent Decree.

h. "CEMS" shall mean Continuous Emission Monitoring System.

i. "CEMS Certification" or "CEMS re-Certification" shall mean the

certification of a CEMS as required by 40 C.F.R. § 60.13, 40 C.F.R. Part 60 Appendix B (Performance Specification 2), and 40 C.F.R. Part 60 Appendix F (Quality Assurance Procedures).

j. “CEMS Certification Event” shall mean any event that triggers the requirement to complete a first CEMS Certification or subsequent CEMS Certification.

k. “Cold Tank Repair” shall refer to the process of stopping glass production, stopping the flow of fuel, fully cooling down a Furnace, replacing some or all of the refractory in the Furnace, the crown and/or the regenerators (if applicable), and beginning a new campaign by starting up the Furnace again by firing fuel again and starting the production of glass. Cold Tank Repair, for the purposes of this Consent Decree, does not include any refractory repairs conducted when the Furnace is still hot, and repairs solely required for restart of a Furnace which has temporarily ceased Operation due to economic reasons.

l. “Complaints” shall mean the complaints filed by the United States and Plaintiff-Intervenors in this action.

m. “Consent Decree” and “Decree” shall mean this Consent Decree and all Appendices attached hereto (as listed in Section XXV). In the event of any conflict between the text of this Consent Decree and any Appendix, the text of this Consent Decree shall control.

n. “Continuous Operating Year” shall mean a Calendar Year during which a Furnace that is connected to a Control Device Operates on every Day of that Calendar Year.

- o. “Control Device” shall mean a SCR, DS, PD or similar add-on air pollution control device.
- p. “Control Device Startup” shall mean the period of time from the initial commencement of operation of a Control Device until operation of the device is stable and the device has achieved normal operating conditions. A Control Device Startup shall not exceed thirty (30) Days. Control Device Startup does not include subsequent startups of the Control Device, unless the subsequent startup of the Control Device occurs during a restart after a downtime of more than six months.
- q. “Covered Facility” and “Covered Facilities” shall mean one or more of the following float glass manufacturing facilities owned and operated by Guardian:
 - i. “Carleton Facility” shall mean the float glass manufacturing facility located at 14600 Romine Road, Carleton, Michigan, which has two float glass production Furnaces: “Carleton Line 1” and “Carleton Line 2”;
 - ii. “Corsicana Facility” shall mean the float glass manufacturing facility located at 3801 S. Highway 287, Corsicana, Texas;
 - iii. “DeWitt Facility” shall mean the float glass manufacturing facility located at 300 South 5th Ave., E., DeWitt, Iowa;
 - iv. “Floreffe Facility” shall mean the float glass manufacturing facility located at 1000 Glasshouse Road, Jefferson Hills, Pennsylvania;
 - v. “Geneva Facility” shall mean the float glass manufacturing facility located at 50 Forge Avenue, Geneva, New York;
 - vi. “Kingsburg Facility” shall mean the float glass manufacturing facility located at 11535 E. Mountain View, Kingsburg, California; and

- vii. "Richburg Facility" shall mean the float glass manufacturing facility located at 610 L & C Railway Dist. Park, Richburg, South Carolina.
- r. "Daily Glass Production" shall mean the Tons of glass produced per Day from the Furnace (commonly known as "pulled") as measured by the measurement method or the weight method. It will be the composite of approximately 18 samples at approximately 80 minute intervals which are averaged to give a daily production rate.
- s. "Day" shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day. A Day starts at 12:00 a.m. and ends at 11:59 p.m.
- t. "Defendant" shall mean Guardian.
- u. "District" shall mean the San Joaquin Valley Unified Air Pollution Control District.
- v. "Dry Scrubber" and "DS" shall mean a pollution control system, sometimes referred to as a sorbent injection system, which involves the addition of an alkaline material into the gas stream to react with the acid gases. The acid gases react with the alkaline sorbents to form solid salts. There is no moisture added in the reaction chamber or reaction area. DSs include traditional add-on DS and ceramic filter systems.
- w. "Effective Date" shall have the definition provided in Section XVIII;
- x. "Emission Credit(s)" shall mean an authorization or credit to emit a specified amount of the pollutants NO_x , SO_2 , H_2SO_4 , PM, PM_{10} and $\text{PM}_{2.5}$ that is authorized by, allocated, or issued under an emissions trading or marketable permit program of any kind established under the CAA or a SIP.

y. "EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies.

z. "Furnace" shall mean a unit comprised of a refractory-lined vessel in which raw materials are charged and melted at high temperature to produce molten glass.

aa. "Furnace Startup" shall mean the period of time during which a Furnace's refractory is heated from ambient temperature to Operating temperature. A Furnace Startup shall last no more than 30 Days and includes the slow heating of the Furnace refractory, initially with portable burners and transitioning to main burners once the Furnace reaches a temperature at which they can commence operation. Furnace Startup also includes the initial filling of the Furnace, following the heat-up, with cullet and/or raw materials, to a level at which production launch can commence.

bb. "Guardian" shall mean Guardian Industries Corp.

cc. "H₂SO₄" shall mean sulfuric acid mist.

dd. "Idling" shall mean the operation of a Furnace at less than 25 percent of the permitted glass production capacity as stated in the District Permit to Operate. This definition applies to the Kingsburg Facility only.

ee. "Inlet" shall mean the concentration of NO_x (in ppmv corrected to 7% O₂ unless the permit states otherwise) measured prior to a SCR.

ff. "Installation of Controls" shall, solely for the purposes of this Consent Decree, include:

i. The installation of a SCR, DS, or PD; or

ii. The installation of any alternative controls or alternative Primary

Control Technology approved under Paragraphs 32-38.

gg. “Maintenance” shall mean activities necessary to keep Control Devices in normal operating condition, as described in Paragraph 30.

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

ii. “NO_x” shall mean the sum of oxides of nitrogen in the flue gas, collectively expressed as NO₂.

jj. “New Source Review” and “NSR” shall mean the PSD provisions in Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, the NNSR provisions in Part D of Subchapter I of the CAA, 42 U.S.C. §§ 7501-7515, implementing regulations, and analogous provisions of federally-enforceable SIPs.

kk. “Nonattainment New Source Review” or “NNSR” shall mean the nonattainment new source review program within the meaning of Part D of Subchapter I of the CAA, 42 U.S.C. §§ 7501-7515, implementing regulations, and analogous provisions of federally-enforceable SIPs.

ll. “Operate,” “Operation,” “Operating” and “Operated” shall mean any time when fuel is fired in a Furnace.

mm. “Operating Day” shall mean any day where any fuel is fired in a Furnace.

nn. “Outlet” shall mean the NO_x concentration (in ppmv corrected to 7% O₂ unless the permit states otherwise) measured after a SCR.

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

pp. “Particulate Device” and “PD” shall mean a control device that uses filtration technology to reduce Particulate Matter emissions, including, but not limited to, electrostatic precipitators, baghouses, and ceramic filter systems.

qq. “Particulate Matter” and “PM” shall mean any finely divided solid or liquid material, other than uncombined water, as measured using EPA Test Method 5 (40 C.F.R. Part 60 Appendix A-3).

rr. “Party” and “Parties” shall mean one or more of the following: the United States, State of Iowa, State of New York, the District, and Guardian.

ss. “Permit” shall include any and all interim and final authorizations issued pursuant to federal, state, or local law that is necessary: (1) to construct, modify, or Operate a Furnace, or (2) to construct, install, and operate a Control Device or monitoring device required by this Consent Decree or other applicable law.

tt. “Plaintiff-Intervenors” shall mean the State of Iowa, State of New York, and the San Joaquin Valley Unified Air Pollution Control District.

uu. “Prevention of Significant Deterioration,” and “PSD” shall mean the attainment area New Source Review program within the meaning of Part C of Subchapter I of the CAA, 42 U.S.C. §§ 7470-7492, implementing regulations, and analogous provisions of federally-enforceable SIPs.

vv. “Primary Control Technology” for NO_x , SO_2 , PM and H_2SO_4 shall mean any new process design, equipment or operating methodology that allows for the emissions limits to be met without the installation of a Control Device.

ww. “Removal Efficiency” for NO_x shall mean the percent reduction in concentration of NO_x achieved by a Furnace’s Control Device. This percent reduction

shall be calculated by subtracting the Outlet concentration of NO_x (corrected to 7% O_2 unless the Permit states otherwise) from the Inlet concentration of NO_x (corrected to 7% O_2 unless the Permit states otherwise), dividing the difference by the Inlet concentration and then multiplying the result by 100.

xx. “Section” shall mean a portion of this Consent Decree identified by a Roman numeral.

yy. “Selective Catalytic Reduction” and “SCR” shall mean a pollution control device that reacts ammonia (NH_3) or urea with NO_x to form nitrogen (N_2) and water (H_2O) using a catalyst to speed the reaction. SCRs include traditional add-on SCRs and catalyst-impregnated ceramic filters.

zz. “Semi-Dry Scrubber” and “SDS” shall mean a pollution control system, sometimes referred to as a sorbent injection system, which involves the addition of a finely atomized water-based alkaline slurry material injected into the gas stream to react with the acid gases. The acid gases are absorbed by the slurry droplets and react to form solid salts. The heat of the flue gas is used to evaporate all the water droplets, with a non-saturated (i.e. dry) flue gas leaving the reaction chamber or reaction area.

aaa. “ SO_2 ” shall mean the pollutant sulfur dioxide.

bbb. “Surrender of Air Permits or Air Permit Conditions” shall mean that Guardian has asked the permitting authority in writing to declare all air Permits for a particular Furnace(s) or air Permit conditions for a particular Furnace(s) be terminated, and the permitting authority has done so.

ccc. “Title V Permit” shall mean a Permit required by or issued pursuant to the requirements of 42 U.S.C. § 7661-7661f, implementing regulations, and analogous

provisions of federally-enforceable SIPs.

ddd. “Ton” and “Tons” shall mean short ton (equal to 2000 pounds) or short tons.

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

fff. “24-hour Block Average” shall be calculated by averaging all valid one-hour emissions data outputs (concentrations or pounds) for a given Operating Day and using the Daily Glass Production on that Operating Day where applicable.

ggg. “30-day Rolling Average Emission Rate” shall be expressed as pounds of pollutant emitted per Ton of glass produced and calculated at a Furnace in accordance with the following formula and subparagraphs i and ii below:

$$30 - \text{day average } \frac{\text{lb } E}{\text{Ton}} = \frac{\text{COD}_E(\text{lbs}) + \text{P29D}_E(\text{lbs})}{\text{COD}_{\text{Prod}}(\text{Tons}) + \text{P29D}_{\text{Prod}}(\text{Tons})}$$

Where: 30-day average (lb E/Ton) = The 30-day Rolling Average Emission Rate

E = emissions of NO_x or SO₂.

COD = Current Operating Day where the relevant 30-day Rolling Average Emission Rate is the applicable limit and the CEMS measures at least 1 full hour of emissions data.

COD_E = The daily emissions as measured by a CEMS on the COD, in pounds.

COD_{Prod} = Daily Glass Production on the COD in Tons of glass.

P29D = The Previous 29 Operating Days where the relevant 30-day Rolling Average Emission Rate is the applicable limit and the CEMS measures at least 1 full hour of emissions data.

P29D_E = The sum of the daily NO_x or SO₂ emissions as measured by a CEMS during the P29D, in pounds.

$P29D_{Prod}$ = The sum of the Daily Glass Production during the P29D, in Tons of glass.

i. A new 30-day Rolling Average Emission Rate shall be calculated for each new Operating Day where the 30-day Rolling Average Emission Rate is the applicable standard and the CEMS measures at least 1 full hour of emissions data. Any Operating Day where the newly calculated 30-day Rolling Average Emission Rate exceeds the limit is a separate one Day violation; and

ii. As specified in Paragraphs 10-12 and 15-16 of this Consent Decree, certain Abnormally Low Production Rate Days, Furnace and/or Control Device Startup Days, Malfunction Days, Idling, and Maintenance Days may be excluded from the 30-day Rolling Average Emission Rate.

hhh. "30-day Rolling Average NO_x Removal Efficiency" shall be calculated each Day where the 30-day Rolling Average NO_x Removal Efficiency is the applicable standard and the CEMS measures at least 1 full hour of emissions data. It is calculated by summing the Removal Efficiency 24-hour Block Averages from the Furnace for each Operating Day and previous twenty-nine (29) Operating Days when the 30-day Rolling Average NO_x Removal Efficiency was the applicable standard and the CEMS measured at least 1 full hour of emissions data and then dividing by 30. A new 30-day Rolling Average NO_x Removal Efficiency shall be calculated for each new Operating Day. Any Operating Day where the newly calculated 30-day Rolling Average NO_x Removal Efficiency is less than the Removal Efficiency limit is a separate one-day violation.

IV. COMPLIANCE REQUIREMENTS

A. Emission Controls and Limits at the Kingsburg Facility

7. Notwithstanding any other requirement or condition in this Consent Decree, Guardian shall comply with all emission limits and requirements in District Rule 4354, as approved by EPA into the California SIP ("SIP-approved District Rule 4354").

B. NO_x Emission Controls, Limits, and Compliance Schedule

8. Interim NO_x Emission Controls and Limits at the Corsicana Facility.

a. Installation of High Efficiency Burners. By no later than December 31, 2015, Guardian shall install and continuously operate 24 Global Combustion Burners VitroGLO-SP or equivalent at the Corsicana Facility's Furnace.

b. Installation of NO_x CEMS. By no later than December 31, 2015, Guardian shall install, calibrate, certify, maintain, and operate NO_x CEMS in accordance with the requirements specified in Paragraph 26.

c. Interim NO_x Emission Limit. Immediately after installing the high efficiency burners, Guardian will use the high efficiency burners at all times the Furnace is Operating. After installation of the CEMS, Guardian will optimize the high efficiency burners to reduce NO_x emissions. Optimization shall include procedures to evaluate the impact of different burner operating parameters on the emission reduction achieved. After the CEMS is installed and optimization is complete, but by no later than 120 Days after installing the CEMS, Guardian will collect data from the NO_x CEMS for 180 Days. By no later than 60 Days after completing the 180-Day data collection, Guardian will propose to EPA for review and approval separate interim NO_x emission limits for clear and colored glass products for the Corsicana Facility's Furnace in the form of 30-day

Rolling Average Emission Rates.

i. Upon proposing interim NO_x emission limits, Guardian shall continuously comply with the proposed 30-day Rolling Average Emissions Rates. If the EPA disapproves the interim NO_x emission limit(s) proposed by Guardian, EPA shall establish interim NO_x emission limit(s) and notify Guardian of the new interim NO_x emission limit(s). Unless Guardian disputes EPA's new interim NO_x emission limit(s) within 30 days of its receipt of that notice pursuant to the dispute resolution provisions of this Consent Decree, Guardian shall comply with EPA's new interim NO_x emission limit(s) within 45 Days.

ii. Guardian shall comply with the interim NO_x emission limit established in subparagraph 8.c.i. until the compliance deadlines specified in Table 1 for installing final NO_x emission controls.

iii. Guardian will demonstrate compliance with the applicable interim NO_x emission limit continuously using a NO_x CEMS except during Furnace Startup, Canal Maintenance or Abnormally Low Production Rate Days. Guardian may exclude the emissions generated during Furnace Startup, Canal Maintenance or Abnormally Low Production Rate Days from the 30-day Rolling Average Emission Rate. During the Furnace Startup, Canal Maintenance or Abnormally Low Production Rate Day(s) excluded from the 30-day Rolling Average Emission Rate, a NO_x CEMS shall be used to demonstrate the Furnace's compliance with the following pound per Day NO_x limit on a 24-hour Block Average:

$$NO_{x\ Interim\ Abn} = E \frac{lb\ NO_x}{ton} \times \left[\frac{P}{0.35} \right]$$

Where: $NO_{X \text{ Interim Abn}}$ = NO_{X} emission limit (in pounds per Day) for the Corsicana Facility's Furnace during the interim period during a Furnace Startup, Canal Maintenance or Abnormally Low Production Rate Day(s) .

E = Applicable emission limit from subparagraph 8.c.i.

P = Furnace-specific production threshold as defined in Table 7, in Tons of glass produced per Day.

9. NO_{X} Emission Controls Installation Schedule for All Covered Facilities.

Guardian shall install SCRs in compliance with this Paragraph on its Furnaces according to the schedule in Table 1. If a Furnace undergoes a Cold Tank Repair prior to a deadline listed in Table 1, it must install a SCR at the time of the Cold Tank Repair. For the Kingsburg Facility, where Guardian is already operating a SCR, Guardian must comply with the conditions of Paragraph 11 by no later than November 30, 2015.

Table 1: NO_x Emission Controls Installation Schedule

Compliance Deadline	Total number of Furnaces that must have completed installation of a SCR or shutdown in accordance with Paragraph 24.	Facility and Furnace
Effective Date	1	Kingsburg (existing)
December 31, 2015	2	Kingsburg, and either Floreffe or Carleton Line 2
December 31, 2016	3	Kingsburg, Floreffe, and Carleton Line 2
December 31, 2017	4	Kingsburg, Floreffe, Carleton Line 2, and 1 of the following Furnaces: Carleton Line 1, DeWitt, or Geneva
December 31, 2018	5	Kingsburg, Floreffe, Carleton Line 2, and 2 of the following Furnaces: Carleton Line 1, DeWitt, or Geneva
December 31, 2019	6	Kingsburg, Floreffe, Carleton Line 2, Carleton Line 1, Dewitt, and Geneva
December 31, 2021	7	Kingsburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, Geneva, and Richburg
December 31, 2024	8	Kingsburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, Geneva, Richburg, and Corsicana

10. Final NO_x Emission Controls and Limits for All Facilities Except as Provided in Paragraph 11.

a. NO_x Emission Controls.

By no later than the first Operating Day after the deadline in Table 1, Guardian shall Operate each Furnace passing all stack gases (except during Furnace Startup; Control Device Startup; Malfunction of the SCR, DS, or PD; or Maintenance of the SCR, DS, or PD) through a SCR in compliance with the following:

- i. SCRs must be designed for a removal efficiency of at least 90 percent; and

ii. While each SCR is operating, Guardian shall continuously operate the SCR in accordance with good air pollution control practice for minimizing emissions to the extent practicable, consistent with 40 C.F.R. § 60.11(d), taking into consideration Ammonia Slip.

b. Final NO_x Emission Limits. Commencing on the first Operating Day after completing the Control Device Startup period (but in no case later than the compliance deadlines in Table 1), Guardian shall comply with an 80% 30-day Rolling Average NO_x Removal Efficiency, except as provided in subparagraph 10.c. Guardian shall demonstrate compliance with the 80% 30-day Rolling Average NO_x Removal Efficiency using a NO_x CEMS.

c. NO_x Limit During Furnace Startup, Control Device Startup, Malfunction of the SCR, DS, or PD, and Maintenance of the Canals, SCR, DS, or PD.

i. NO_x Limit During Furnace Startup. For no more than the 30 Days allowed for Furnace Startup, the Furnace exhaust may bypass the SCR to avoid having the operating inlet temperature of the SCR fall below its operational range. During these bypass Days Guardian shall burn no more than five (5) million standard cubic feet of natural gas in that Furnace per Day. When technically feasible and available, Guardian will operate the SCR on the Furnace exhaust.

ii. NO_x Limit During Control Device Startup or Malfunction of the SCR, DS or PD. For each Operating Day that the SCR does not operate or is not operating normally because of the Control Device Startup or Malfunction of the SCR, DS, or PD for any period of time, Guardian may exclude that Day's Removal Efficiency from the 30-day Rolling Average NO_x Removal Efficiency.

During the Days excluded from the 30-day Rolling Average NO_x Removal Efficiency, a NO_x CEMS shall be used to demonstrate compliance with the following pound per Day NO_x limit on a 24-hour Block Average for each Covered Facility:

Table 2: NO_x Emission Limits During Days Where the SCR Is Not Operating Pursuant to Subparagraph 10.c.ii.

Facility and Furnace	NO _x W/o SCR (lb/Day)
Floreffe	6,000
Carleton #1	6,314
Carleton #2	10,433
Corsicana	14,400
Richburg	10,800
Geneva	8,134
DeWitt	7,800
Kingsburg	8,400

iii. NO_x Limit During Maintenance of the Canals, SCR, DS or PD.

For any Operating Day where Maintenance activities on the canals, SCR or DS/PD are performed, Guardian may exclude the Maintenance Day from the 30-day Rolling Average NO_x Removal Efficiency. For any Day which is excluded from the 30-day Rolling Average NO_x Removal Efficiency, a NO_x CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per Day limit:

$$NO_{X\ SCR\ Maint} = \frac{MH \times NO_{X\ W/o\ SCR}}{24} + \frac{NH \times NO_{W/o\ SCR} \times 0.2}{24}$$

Where: NO_x SCR Maint = NO_x emission limit for a Furnace during Maintenance of the Canals, SCR, DS or PD, in pounds per Day

$NO_{X \text{ w/o SCR}}$ = As defined in 10.c.ii. and Table 2, NO_X emission limit for a Furnace using SCR during an event where the SCR is not operating, in pounds per Day

MH = Hours of Maintenance

NH = Normal Hours = 24 – MH

11. Final NO_X Emission Controls and Limits for the Kingsburg Facility.

a. NO_X Emission Controls.

By no later than the Effective Date for the Kingsburg Facility, Guardian shall Operate the Furnace (except during start-up as defined by SIP-approved District Rule 4354; or Maintenance of the SCR, DS, or PD) passing all stack gases through the SCR in compliance with the following:

i. While the SCR is operating, Guardian shall continuously operate the SCR in accordance with good air pollution control practice for minimizing emissions to the extent practicable, consistent with 40 C.F.R. § 60.11(d), taking into consideration Ammonia Slip.

b. Final NO_X Emission Limits. By no later than November 30, 2015, Guardian shall comply with an 80% 30-day Rolling Average NO_X Removal Efficiency, except as provided in subparagraph 10.c. Guardian shall demonstrate compliance with the 80% 30-day Rolling Average NO_X Removal efficiency using a NO_X CEMS.

12. Alternative Compliance Option. Guardian may elect to use the following alternative compliance option in lieu of complying with the NO_X emission limits required in Paragraphs 10 and 11, provided that Guardian satisfies the requirements below.

a. If Guardian is able to reduce the 30-day Rolling Average Emission Rate into the SCR to less than 8.0 lb NO_X per Ton of glass produced for at least 180

consecutive Days of normal Operation (excluding periods that qualify as Maintenance, Malfunction, Furnace Startup, Control Device Startup, or Abnormally Low Production Rate Days), Guardian may notify EPA and the applicable Plaintiff-Intervenor, if any, that it elects to comply with a 30-day Rolling Average Emission Rate of 1.6 lb NO_x per Ton of glass produced (measured after the SCR) in lieu of the final NO_x emission limit(s) in subparagraph(s) 10.b. and/or 11.b. Guardian shall comply with a 30-day Rolling Average Emission Rate of 1.6 lb NO_x per Ton of glass produced 60 Days after Guardian provides notice to EPA and the applicable Plaintiff-Intervenor, if any. After electing to comply with the alternative compliance option in this Paragraph, Guardian may not revert to complying with the final NO_x emission limit(s) in subparagraph(s) 10.b. and/or 11.b. If EPA determines that Guardian has not satisfied any of the following criteria, Guardian must continue complying with the applicable final NO_x emission limit(s) in subparagraph(s) 10.b. and/or 11.b.

b. Guardian's notice must include all 30-day rolling average data for NO_x for the 12-month period prior to the date the notice is submitted. Guardian must clearly identify any Days that it believes are exempted from the 30-day Rolling Average Emission Rate and indicate which exemption applies (i.e., Maintenance, Malfunction, Furnace or Control Device Startup, or Abnormally Low Production Rate Days).

c. Guardian's notice must identify any equipment that it installed and explain all actions that it took in order to achieve reduced emissions at the Furnace for which it seeks an Alternative Compliance Option. Guardian shall continue to operate any equipment and continue all actions necessary to maintain such emissions reductions.

d. Guardian may not elect to comply with an alternative compliance option

for a Furnace that has had any exceedances of the Final NO_x Emission Limit(s) required by subparagraph(s) 10.b. and/or 11.b. within the last twelve (12) months prior to the election allowed by this Paragraph 12.

e. Guardian must continue to operate the SCR at all times as required in the applicable Paragraph(s) 10 and/or 11 above. However, Guardian may also comply with a NO_x limit for Abnormally Low Production Rate Days, which shall be calculated as follows:

Guardian may exclude the NO_x emissions generated from that Furnace during an Abnormally Low Production Rate Day (or Days) from the 30-day Rolling Average Emissions Rate. During these Days, a CEMS shall be used to demonstrate Guardian's compliance on a 24-hour Block Average with the following pound per Day limit:

$$NO_{x\ Abn} = 1.6 \frac{lb\ NO_x}{ton} \times \left[\frac{P}{0.35} \right]$$

Where: NO_{x Abn} = NO_x emission limit (in pounds per Day) for a Furnace using SCR during Days when an Abnormally Low Production Rate is occurring.
P = Furnace-specific production threshold as defined in Table 7, in Tons of glass produced per Day.

C. SO₂ Emission Controls, Limits, and Compliance Schedule

13. SO₂ Emission Control Installation Schedule. Except for the Kingsburg Facility and Floreffe Facility (where Guardian is already operating DSs), by no later than the applicable deadlines in the compliance schedule listed in Table 3, Guardian must install a DS for each Furnace. If a Furnace undergoes a Cold Tank Repair prior to a deadline listed in Table 3, it must install a DS at the time of the Cold Tank Repair.

Table 3: SO₂ Emission Controls and Compliance Schedule

Compliance Deadline	Total number of Furnaces that must have completed installation of a DS or shutdown in accordance with Paragraph 24.	Facility and Furnace
Effective Date	2	Kingsburg (existing) and Floreffe (existing)
December 31, 2016	3	Kingsburg, Floreffe and Carleton Line 2
December 31, 2017	4	Kingsburg, Floreffe, Carleton Line 2, and 1 of the following Furnaces: Carleton Line 1, DeWitt, or Geneva
December 31, 2018	5	Kingsburg, Floreffe, Carleton Line 2, and 2 of the following Furnaces: Carleton Line 1, DeWitt, or Geneva
December 31, 2019	6	Kingsburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, and Geneva
December 31, 2021	7	Kingsburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, Geneva, and Richburg (convert Semi-Dry Scrubber to DS ¹)
December 31, 2024	8	Kingsburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, Geneva, Richburg (convert Semi-Dry Scrubber to DS ¹), and Corsicana

14. Interim Emission Limit at the Richburg Facility.

For the Richburg Facility, which is already operating a Semi-Dry Scrubber, Guardian shall comply with an interim emission limit of no more than 30 lb/hr of SO₂ using the Semi-Dry Scrubber until Guardian installs the SCR or the deadline in Table 3, whichever occurs first.

15. Final SO₂ Emission Controls and Limits for All Facilities Except Kingsburg.

¹ In the event it becomes technically feasible to operate a Semi-Dry Scrubber with an SCR, then Guardian shall not be required to convert its Semi-Dry Scrubber to a DS.

a. SO₂ Emission Controls.

By no later than the Effective Date for the Floreffe Facility, and the first Operating Day after the deadline in Table 3 for the remaining Covered Facilities, Guardian shall Operate each Furnace passing all stack gases (except during Furnace Startup; Control Device Startup; Malfunction of the DS or PD; or Maintenance of the DS or PD) through a DS.

b. Final SO₂ Emission Limits.

By no later than December 31, 2015 for the Floreffe Facility and the first Operating Day after the deadline in Table 3 for the remaining Covered Facilities, Guardian shall not exceed a 30-day Rolling Average Emission Rate of 1.2 lb SO₂ per Ton of glass produced, except as provided in subparagraph 15.c. Guardian shall demonstrate compliance with the 30-day Rolling Average Emission Rate using a SO₂ CEMS.

c. SO₂ Limit During Furnace Startup, Control Device Startup, Malfunction of the DS or PD, Maintenance of the DS or PD, and Abnormally Low Production Rate Days.

i. SO₂ Limit During Furnace Startup. For no more than the 30 Days allowed for Furnace Startup, Furnace exhaust may bypass the DS to avoid having the operating inlet temperature of the DS fall below its operational range. During the Days that Furnace exhaust bypasses the DS, Guardian shall burn no more than five (5) million standard cubic feet of natural gas in that Furnace per Day. When technically feasible and available, Guardian will operate the DS on the Furnace exhaust.

ii. SO₂ Limit During Control Device Startup or Malfunction of the

DS or PD. For any Operating Day during Control Device Startup or on which a Malfunction of the DS or PD occurs, Guardian may exclude the emissions generated during that Operating Day (or Days) from all Furnaces connected to that DS or PD from the 30-day Rolling Average Emission Rate. During the Day(s) excluded from the 30-day Rolling Average Emission Rate, a CEMS shall be used to demonstrate Guardian's compliance with the following pound per Day SO₂ limit on a 24-hour Block Average:

Table 4: SO₂ Emission Limits During Days Excluded Pursuant to Subparagraph 15.c.

Facility and Furnace	SO₂ w/o DS (lb/Day)
Floreffe	1,984
Carleton #1	3,095
Carleton #2	3,224
Corsicana	3,095
Richburg	3,819
Geneva	3,472
DeWitt	3,472

iii. SO₂ Limit During Maintenance of the DS or PD. For any Operating Day when Maintenance is performed on the DS or PD, Guardian may exclude the emissions generated during that Operating Day (or Days) from that Furnace from the 30-day Rolling Average Emission Rate. During the Day(s) excluded from the 30-day Rolling Average Emission Rate, a CEMS shall be used to demonstrate Guardian's compliance with the following pound per Day SO₂ limit on a 24-hour Block Average:

$$SO_{2 \text{ Scrub Maint}} = \frac{MH \times SO_{2 \text{ w/o DS}}}{24} + \frac{NH \times [1.2 \times \left[\frac{P}{0.35} \right]]}{24}$$

Where: $SO_{2 \text{ Scrub Maint}}$ = SO_2 emission limit (in pounds per Day) for a Furnace with a DS during Maintenance of the DS or PD.

$SO_{2 \text{ w/o DS}}$ = As defined in Table 4, SO_2 emission limit for a Furnace using DS during an event where the DS is not operating, in pounds per Day

P = Furnace-specific production threshold as defined in Table 7, in Tons of glass produced per Day.

MH = Hours of Maintenance

NH = Normal Hours = 24 – MH

iv. SO_2 Limit During Abnormally Low Production Rate Days.

When any Covered Furnace is Operating at an Abnormally Low Production Rate, Guardian may exclude the SO_2 emissions generated from that Furnace during that Operating Day (or Days) from the 30-day Rolling Average Emissions Rate. During the Days excluded from the 30-day Rolling Average Emissions Rate, a SO_2 CEMS shall be used to demonstrate Guardian's compliance with the following pound per Day SO_2 limit on a 24-hour Block Average:

$$SO_{2 \text{ Abn}} = 1.2 \frac{\text{lb } SO_2}{\text{ton}} \times \left[\frac{P}{0.35} \right]$$

Where: $SO_{2 \text{ Abn}}$ = SO_2 emission limit (in pounds per Day) for a Furnace during Days when an Abnormally Low Production Rate is occurring.

P = Sum of the Furnace-specific production thresholds as defined in Table 7, in Tons of glass produced per Day.

16. Final SO₂ Emission Controls and Limits for the Kingsburg Facility.a. SO₂ Emission Controls.

By no later than the Effective Date for the Kingsburg Facility, Guardian must Operate the Furnace passing all stack gases (except during start-up as defined by SIP-approved District Rule 4354; or Maintenance of the DS or PD) through a DS.

b. Final SO₂ Emission Limits.

Guardian shall not exceed a 30-day Rolling Average Emission Rate of 1.2 lb SO₂ per Ton of glass produced except as provided in subparagraphs 16.b.i-iii. Guardian shall demonstrate compliance with the 30-day Rolling Average Emission Rate using an SO₂ CEMS.

i. SO₂ Limit During Start-up as Defined by SIP-approved District

Rule 4354. Guardian shall comply with the requirements in SIP-approved District Rule 4354 during start-up as defined by SIP-approved District Rule 4354.

ii. SO₂ Limit During Maintenance of the DS or PD. For any

Operating Day where Maintenance activities on DS or PD are performed, Guardian may exclude the Maintenance Day from the 30-day Rolling Average Emission Rate. For any Day which is excluded from the 30-day Rolling Average Emission Rate, a SO₂ CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the following pound per Day limit:

$$SO_{2\ K\ Scrub\ Maint} = \frac{MH \times 3472}{24} + \frac{NH \times 1190}{24}$$

Where: SO_{2 K DS Maint} = SO₂ emission limit for the Kingsburg Furnace during a DS Maintenance Day, in pounds per Day

MH = Hours of Maintenance

NH = Normal Hours = 24 – MH

iii. SO₂ Limit During Idling. During Idling, Guardian may exclude the SO₂ emissions generated from that Furnace during that Operating Day (or Days) from the 30-day Rolling Average Emissions Rate for the Kingsburg Facility. During the Days excluded from the 30-day Rolling Average Emissions Rate, a SO₂ CEMS shall be used to demonstrate Guardian's compliance with an 1,190 pounds per Day SO₂ limit.

D. Increased Production Capacity

17. If increased production capacity at a Furnace is authorized by a revised Permit limit, the applicable pound per Day limit(s) established in Paragraphs 10, 15, and/or 16 will be increased using the following formula:

New pound per Day limit = original pound per Day limit * COD_{new}/COD_{old}

Where:

COD_{new} = New Daily Glass Production in Tons of glass per Day

COD_{old} = Original Daily Glass Production in Tons of glass per Day

E. PM Emission Controls, Limits, and Compliance Schedules

18. Except for the Kingsburg Facility, Floreffe Facility, and Richburg Facility (where Guardian already operates Particulate Devices), by no later than the applicable deadlines in Table 5, Guardian must install a PD for each Furnace. If a Furnace undergoes a Cold Tank Repair prior to a deadline listed in Table 5, Guardian must install and begin operating a PD at the time of the Cold Tank Repair.

Table 5: PM Emission Controls and Compliance Schedule

Compliance Deadline	Total number of Furnaces that must have completed installation of a PD or shutdown in accordance with Paragraph 24.	Facility and Furnace
Effective Date	3	Kingsburg (existing), Richburg (existing), and Floreffe (existing)
December 31, 2016	4	Kingsburg, Richburg, Floreffe, and Carleton Line 2
December 31, 2017	5	Kingsburg, Richburg, Floreffe Carleton Line 2, and 1 of the following Furnaces: Carleton Line 1, DeWitt, or Geneva
December 31, 2018	6	Kingsburg, Richburg, Floreffe Carleton Line 2, and 2 of the following Furnaces: Carleton Line 1, DeWitt, or Geneva
December 31, 2019	7	Kingsburg, Richburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, and Geneva
December 31, 2024	8	Kingsburg, Richburg, Floreffe, Carleton Line 2, Carleton Line 1, DeWitt, Geneva, and Corsicana

19. Final PM Emission Controls and Limits for All Facilities Except Kingsburg:

a. PM Emission Controls.

By no later than the Effective Date for the Floreffe and Richburg Facilities, and the first Operating Day after the deadline in Table 5 for the remaining Facilities, Guardian shall Operate each Furnace passing all stack gases (except during Furnace Startup; Control Device Startup; Malfunction of the PD; or Maintenance of the PD) through a PD.

b. Final PM Emission Limit.

Guardian shall not exceed a limit of 0.45 lb of PM per Ton of glass produced.

20. Final PM Emission Controls and Limits for the Kingsburg Facility:

a. PM Emission Controls.

By no later than the Effective Date, Guardian shall Operate the Kingsburg Furnace passing all stack gases (except during Startup as defined by District Rule 4354; or Maintenance of the PD) through a PD.

b. Final PM Emission Limit.

Guardian shall not exceed a limit of 0.45 lb of PM per Ton of glass produced.

21. Compliance with the PM emission limits at all Covered Facilities shall be demonstrated through annual stack tests and using EPA Test Method 5 (40 C.F.R. Part 60, Appendix A-3). Guardian shall conduct an initial stack test on each Furnace by no later than 180 Days after the applicable compliance deadline in Table 5 and once each Calendar Year thereafter.

F. H₂SO₄ Controls, Limits, and Compliance Schedules

22. Final H₂SO₄ Controls and Limits.

a. H₂SO₄ Controls.

By no later than the first Operating Day after the compliance deadlines in Table 3, Guardian shall Operate each Furnace equipped with a DS passing all stack gases through the DS (except during a Furnace Startup, Control Device Startup, a Malfunction of the DS and PD, and Maintenance of the DS or PD).

b. Final H₂SO₄ Limits.

Guardian shall not exceed a H₂SO₄ emission limit of 1.6 lb of H₂SO₄ per hour.

23. Compliance with the H₂SO₄ emission limits shall be demonstrated through annual stack tests and using EPA Conditional Test Method CTM 13A or B. Guardian shall conduct an initial stack test on each Furnace by no later than 180 Days after the applicable deadline in Table 3 and once each Calendar Year thereafter.

G. Shutdown of Furnaces

24. The permanent shutdown of a Furnace at a Covered Facility and the Surrender of Air Permits or Air Permit Conditions for that Furnace will be deemed to satisfy all requirements of Sections IV of this Consent Decree applicable only to that Furnace on and after the later of: (i) the date of the permanent shutdown of the Furnace; or (ii) the date of the Surrender of Air Permits or Air Permit Conditions. If Guardian elects to permanently shutdown a Furnace at a Covered Facility, Guardian must provide written notice of the proposed permanent shutdown to the United States and applicable Plaintiff-Intervenor in accordance with Section XVI of this Decree (Notices), by (i) no later than the Effective Date with respect to a Furnace that was permanently shutdown prior to the Effective Date, or (ii) upon the Surrender of Air Permits or Air Permit Conditions and no later than the compliance deadline in Tables 1, 3, and 5 for any other Furnace. Such notification shall include any written correspondence to the permitting authority relating to the Surrender of Air Permits or Air Permit Conditions for that Furnace.

H. CEMS Installation, Calibration, Certification, Maintenance, and Operation

25. For each Furnace listed in Table 6, Guardian shall install, calibrate, certify, maintain, and operate NO_x CEMS (on both the Inlet and Outlet of the SCR) and SO₂ CEMS in accordance with the requirements specified in Paragraph 26 by no later than the applicable deadlines specified in Table 6.

TABLE 6: CEMS Compliance Deadlines

Facility and Furnace	NO_x CEMS Inlet Deadline	NO_x CEMS Outlet Deadline	SO₂ CEMS Deadline
Floreffe	December 31, 2015	Existing	December 31, 2015
Carleton #1	Upon installation of controls under Paragraph 9	December 31, 2017	December 31, 2017
Carleton #2	December 31, 2015	December 31, 2015	December 31, 2015
Corsicana	Upon installation of controls under Paragraph 9	December 31, 2015	December 31, 2015
Richburg	Upon installation of controls under Paragraph 9	December 31, 2016	December 31, 2016
Geneva	Upon installation of controls under Paragraph 9	Existing	Upon installation of controls under Paragraph 13
DeWitt	Upon installation of controls under Paragraph 9	December 31, 2017	December 31, 2017
Kingsburg	October 31, 2015	Existing	Existing

26. Guardian shall install, calibrate, certify, maintain, and operate all NO_x and SO₂ CEMS in accordance with the following requirements:

a. NO_x and SO₂ CEMS shall continuously monitor and record the hourly NO_x and SO₂ emission concentrations (in parts per million (ppm)) during each Operating Day at each Furnace.

b. NO_x and SO₂ CEMS shall be installed, calibrated, certified, maintained, and operated in accordance with 40 C.F.R. § 60.13, 40 C.F.R. Part 60, Appendix B (Performance Specification 2), and 40 C.F.R. Part 60, Appendix F (Quality Assurance Procedures).

c. The first CEMS Certification shall be required no later than the

compliance deadlines specified in Table 6.

d. Events that will trigger subsequent CEMS Certification (or CEMS re-Certification) include any Furnace Startup or Control Device Startup. Guardian shall commence such CEMS re-Certification no later than thirty (30) Days after Furnace Startup commences or a Control Device Startup period concludes. If a Furnace Startup and a Control Device Startup happen at the same time, then the CEMS re-certification shall not be conducted until the first Operating Day after the later startup event concludes.

27. Where the Consent Decree requires the use of CEMS to determine compliance with an emission rate (i.e., pounds per Ton, pounds per Day, or Tons per year), the data acquisition and handling system for the CEMS shall convert the ppm values into pounds per hour values using an O₂ CEMS or a flow monitor installed, calibrated, certified, maintained, and operated in accordance with 40 C.F.R. § 60.13, 40 C.F.R. Part 60, Appendix B (Performance Specification 2 or 6, as applicable) and 40 C.F.R. Part 60, Appendix F (Quality Assurance Procedures). At the end of each Operating Day, the data acquisition and handling system shall divide the total daily emissions in pounds per Day for valid CEMS hourly data by the total Tons of glass produced during the Operating Day (reduced proportionally based on the valid CEMS data hours) to describe the pound per Ton emission rate for the Operating Day. The resulting number shall be recorded in units of pounds of pollutant per Ton of glass produced for the applicable Operating Day.

28. CEMS Certification and CEMS Certification Events. Guardian shall not perform CEMS Certification or CEMS re-Certifications during Abnormally Low Production Rate Days, Idling, Furnace Startup, Control Device Startup, Malfunction of any Control Device, or

Maintenance of any Control Device. By no later than the first Operating Day after any CEMS Certification Event concludes at a Furnace, a new CEMS Certification or CEMS re-Certification shall be performed for that Furnace. If a CEMS Certification Event occurs at any Furnace, the requirement to demonstrate compliance continuously with the applicable final NO_x or SO₂ emission limit for that Furnace will be suspended until CEMS Certification or CEMS re-Certification is complete (provided that the seven-day test required for CEMS Certification is commenced on the first Operating Day following the conclusion of the CEMS Certification Event).

29. Good Air Pollution Control Practices. At all times, including during Abnormally Low Production Rate Days, Idling, a Furnace Startup, a Control Device Startup, Malfunction, and Maintenance, Guardian shall maintain and operate all Furnaces, all Control Devices, and any other associated air pollution control equipment in accordance with 40 C.F.R. § 60.11(d).

30. Maintenance for Control Devices and Canal Changes at the Covered Facilities:

a. Scheduled or Preventive Maintenance on Control Devices. Any Operating hour that is exempted from the applicable 30-day Rolling Average Emission Rate because of Maintenance being performed on a Control Device is subject to the following restrictions and must comply with the following requirements: Scheduled or preventive Maintenance of Control Devices shall occur and shall be completed while the Furnace(s) connected to the Control Device(s) is not Operating, unless the Furnace connected to the Control Device is scheduled to have a Continuous Operating Year. During a Continuous Operating Year, scheduled or preventive Maintenance on the Control Devices may be conducted while the Furnace(s) connected to the Control Device(s) is Operating. All Control Device Maintenance occurring during a Continuous Operating Year must also be

performed in accordance with the following requirements:

i. Maintenance on all add-on Control Devices at each Covered Facility shall not exceed 144 hours total per Calendar Year.

ii. Bypassing a SCR for the purpose of preventive Maintenance shall not exceed 144 hours per Calendar Year. Bypass of the SCR required as a result of bypassing the PD or DS shall count towards the 144 hour limit.

iii. Bypassing a PD for the purpose of preventive Maintenance shall not exceed 144 hours per Calendar Year. Furthermore, if a PD is bypassed, the associated DS and SCR must be bypassed as well.

iv. Bypassing a DS for the purpose of preventive Maintenance shall not exceed 144 hours per Calendar Year. Bypass of the DS required as a result of bypassing the PD shall count towards the 144 hour limit.

b. Canal Changes. This subparagraph does not apply to the Kingsburg Facility. No more than once every 2 calendar years, Guardian is permitted 96 hours to complete a Canal Change on their downstream equipment. In the event a Canal Change becomes necessary in less than 2 years, Guardian shall notify EPA and the applicable Plaintiff-Intervenor at least 30 days prior to the Canal Change to provide the opportunity for the EPA and the applicable Plaintiff-Intervenor to investigate the necessity of Canal Change and object. During this period, the Furnace will Operate at Abnormally Low Production Rate, good air pollution control practices will be used at all times, the DS and PD (if technologically feasible for the catalyst-impregnated ceramic filter system) must be operated, and the SCR must be operated unless the inlet temperature or flow to the SCR drops to less than 115% of the minimum operating temperature or flow (as defined

by the SCR vendor) for 15 consecutive minutes, and then Guardian may discontinue use of the SCR until temperature and flow stabilize at 115% of the recommended minimums.

31. Source/Stack Testing. All source/stack tests required by the Consent Decree shall be conducted in accordance with the requirements of the specified Test Method and shall be performed under representative Operating conditions or applicable state requirements for the Furnace being tested. Each test shall be comprised of at least three (3) valid one-hour stack test runs. Guardian shall discard any invalid test runs, such as those that are compromised because of sample contamination. If a test run is discarded, Guardian shall replace it with an additional valid test run. Guardian shall report the results of the discarded test runs to EPA and shall provide all information necessary to document why the test run was not valid. Source/stack testing shall not be conducted during Abnormally Low Production Rate Days, Idling, a Furnace Startup, a Control Device Startup, a Malfunction of the Furnace or relevant Control Device, or Maintenance of the Furnace or relevant Control Device.

I. Alternative Primary Control Technology

32. At any time before termination of the Consent Decree, Guardian may request approval from EPA and the applicable Plaintiff-Intervenor, if any, to install and operate alternative Primary Control Technology for controlling NO_x, SO₂, PM, or H₂SO₄ emissions at a Covered Facility in addition to or in lieu of the Control Devices required in Tables 1, 3, and 5 and Paragraph 22 (with respect to H₂SO₄ emissions) of the Consent Decree. In seeking such approval, Guardian must demonstrate that the proposed alternative Primary Control Technology is capable of achieving and maintaining compliance with the final emissions limits required by Section IV of the Consent Decree unless Guardian requests and EPA approves a different final emission limit(s) pursuant to Paragraph 38.

33. If Guardian submits a request to install and operate an alternative Primary Control Technology before termination of the Consent Decree, but after it has already installed and commenced operation of a Control Device, Guardian shall submit an implementation schedule with its request to install and operate alternative Primary Control Technology.

34. If Guardian submits a request to install and operate an alternative Primary Control Technology before it installs and commences operation of an applicable Control Device, Guardian shall:

a. Install and commence operation of such alternative Primary Control Technology by no later than the applicable compliance deadline specified in Tables 1, 3, and 5, and Paragraph 22 (with respect to H₂SO₄ emissions) of the Consent Decree, unless Guardian submits its request to install and operate alternative Primary Control Technology at least 18 months before the first applicable compliance deadline in Tables 1, 3, and 5 and/or Paragraph 22 (with respect to H₂SO₄ emissions), in which case, Guardian may request an extension of the applicable compliance deadline(s);

b. Comply with the applicable final emission limits listed in Section IV of this Consent Decree in accordance with the method and averaging period requirements specified (unless Guardian requests and EPA approves a different final emission limit(s) pursuant to Paragraph 38);

c. Comply with the requirements of Section VII (Permits), including, but not limited to, Paragraph 55, with respect to the installation and operation of alternative Primary Control Technology;

d. Be subject to stipulated penalties as provided in Section X (Stipulated Penalties), including, but not limited to, Paragraph 74, for each violation regarding the

installation and operation of any alternative Primary Control Technology at a Facility.

35. After reviewing any request by Guardian to install and operate alternative Primary Control Technology at a Covered Facility, EPA, after consulting with the applicable Plaintiff-Intervenor, if any, shall in writing: a) approve the request; b) approve the request upon specified conditions; c) approve part of the request and disapprove the remainder; or d) disapprove the request. If a submission is approved more than 90 Days after EPA's receipt of the request, the final compliance deadlines in Tables 1, 3, and 5 and/or Paragraph 22 (with respect to H₂SO₄ emissions) shall be extended by the same number of Days that EPA's response to the submission exceeded 90 days.

36. Guardian shall notify EPA if it does not install the alternative Primary Control Technology. If Guardian does install the approved alternative Primary Control Technology, it shall take all actions required to implement the requested action, as approved. If the submission is conditionally approved or approved only in part, Guardian shall, upon written direction from EPA, after consulting with the applicable Plaintiff-Intervenor, if any, take all actions required by the approved request that EPA, after consulting with the applicable Plaintiff-Intervenor, if any, determines are technically severable from any disapproved portions, subject to Guardian's right to dispute only the specified conditions or the disapproved portions, under Section XII of the Consent Decree (Dispute Resolution). If the request is approved, conditionally approved, or approved only in part, Guardian may still elect to operate the Control Device(s) as specified in the applicable Paragraphs of this Section IV.

37. If the submission is disapproved in whole or in part, Guardian shall, within 30 Days, or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the request for approval or notify EPA that the request has been withdrawn. If the resubmission

is approved in whole or in part, Guardian shall proceed in accordance with the preceding Paragraph. If the resubmission is conditionally approved or approved only in part, Guardian may, upon written direction from EPA, after consulting with the applicable Plaintiff-Intervenor, if any, take all actions required by the approved request that EPA, after consulting with the applicable Plaintiff-Intervenor, if any, determines are technically severable from any disapproved portions, subject to Guardian's right to dispute only the specified conditions or the disapproved portions, under Section XII of the Consent Decree (Dispute Resolution).

38. Nothing in this subsection IV.I. of the Consent Decree shall prohibit Guardian from requesting an increase in a final emission limit or a change in the format of a final emission limit to accommodate alternative Primary Control Technology that achieves significant greenhouse gas reductions. EPA and the applicable Plaintiff-Intervenor will evaluate the alternative Primary Control Technology in terms of the overall environmental benefits, including emissions of NO_x, SO₂, PM, H₂SO₄ and greenhouse gases. If Guardian requests an increase in a final emission limit or a change in the format of a limit to accommodate a new Primary Control Technology that achieves significant greenhouse gas reductions, EPA may approve or disapprove of Guardian's request to install and operate alternative Primary Control Technology in its sole discretion, which will not be subject to dispute resolution.

J. Abnormally Low Production Rate Days

39. Table 7 lists the threshold values for an Abnormally Low Production Rate Day for each Furnace at a Covered Facility.

TABLE 7: Abnormally Low Production Rate Day Threshold

Facility and Furnace	Abnormally Low Production Rate Day Threshold (Tons/day)
Floreffe	140
Carleton #1	192
Carleton #2	228
Corsicana	218
Richburg	270
Geneva	256
Dewitt	245

40. If increased production capacity at a Furnace is authorized by a revised Permit limit, the Abnormally Low Production Rate Day Threshold will be 35 percent of the new permitted production (or design production, where there is no permitted production) as determined on a daily basis.

K. Recordkeeping

41. Guardian shall record: 1) the hourly NO_x emissions (ppm) before and after the SCR as calculated using CEMS data; the hourly SO₂ emissions (lb per hour) as calculated using CEMS data; 2) the daily production rate; and 3) if applicable, the 30-day rolling average emissions (removal efficiency or rate).

42. For any Operating Day(s) that Guardian excludes from the relevant 30-day Rolling Average NO_x Removal Efficiency or 30-day Rolling Average NO_x or SO₂ Emission Rate, it shall record: 1) the date; 2) the relevant exception pursuant to which Guardian is excluding the emissions generated during that Operating Day (or Days) (i.e. Abnormally Low Production Rate Day, Idling, start-up as defined by SIP-approved District Rule 4354, Furnace Startup, Control Device Startup, Malfunction, or Maintenance); 3) a calculation of the applicable emission limit (in pounds of NO_x and/or SO₂ per Day) according to the equations in 10.c.ii.,

10.c.iii., 12.e., 15.c.ii.-iv., and 16.b.; 4) the emissions recorded by the CEMS (in pounds of NO_x and/or SO₂ per Day); and 5) if it was a Malfunction an explanation and any corrective actions taken. For any Operating Day(s) excluded for Maintenance of a Control Device or Furnace, Guardian shall also record the total number of hours during which Maintenance occurred.

43. Recordkeeping During Furnace Startup. In addition to the recordkeeping requirements listed above, Guardian must also keep the following records during Furnace Startup.

- a. The amount of salt cake added to the batch materials in pounds per Ton of total batch material (including cullet);
- b. The total natural gas usage in that Furnace (in million standard cubic feet);
- c. The excess oxygen percentage (as measured and recorded by the oxygen sensor in the crown of each Furnace regenerator at least once per shift); and
- d. A description of whether thermal blankets or similar techniques were used during this period.

V. ENVIRONMENTAL MITIGATION

44. Guardian has selected the San Joaquin Valley Unified Air Pollution Control District (“District”) to implement the environmental mitigation project (“Project”) described in this Section of the Consent Decree and in Appendix A. Guardian shall contribute \$150,000 to the District to be utilized in the District’s existing Burn Cleaner Incentive Program. Guardian shall pay the contribution by check payable to “San Joaquin Valley Unified Air Pollution Control District”, 1990 E. Gettysburg Ave., Fresno, CA 93726. The Burn Cleaner Incentive Program provides incentives to San Joaquin Valley, CA residents to replace their old wood or pellet-burning devices with new cleaner hearth options through rebates, vouchers, discounts, and for

income-qualified residential homeowners or tenants, full replacement costs. The Project shall be implemented as set forth in this Section of the Consent Decree and Appendices A and B in compliance with the schedule and the other terms of this Consent Decree.

45. The Project shall be for the purpose of mitigating environmental harm allegedly caused by the operation of the Covered Facilities. The funding shall be utilized by the District to provide incentives to San Joaquin Valley residents to replace their old wood or pellet-burning devices with new cleaner options to reduce particulate matter, which contributes to air pollution. The Project is not in lieu of penalties.

46. Guardian shall maintain, and present to EPA upon request, all documents to substantiate the funds expended and work completed to implement the Project described in this Section and Appendix A, and shall provide these documents to EPA within thirty (30) Days of a request for the documents.

47. Guardian certifies the truth and accuracy of the following:

- a. That Guardian is not otherwise required by law to perform the Project;
- b. That Guardian is unaware of any other person who is required by law to perform the Project, and that Guardian will not use the Project, or any portion thereof, to satisfy any obligations that it may have under other applicable requirements of law; and
- c. That Guardian had not otherwise planned to perform the Project generally described in Appendix A.

48. Guardian acknowledges that it will receive credit for completion of the Project only if Guardian demonstrates that the funds have actually been spent by the District, and that the expenditure of funds met all requirements of this Section of the Consent Decree and Appendix A. Guardian may place reasonable reliance on the accuracy of reports or other

information provided by the District to satisfy this obligation.

VI. CIVIL PENALTY

49. Within 30 Days after the Effective Date of this Consent Decree, Guardian shall pay the following amounts as a civil penalty, together with interest accruing from the date on which the Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging:

- a. \$156,000 to the United States;
- b. \$78,000 to the State of Iowa; and
- c. \$78,000 to the State of New York.

50. Guardian shall pay the civil penalty due to the United States by FedWire Electronic Funds Transfer (“EFT”) to the U.S. Department of Justice, in accordance with written instructions to be provided to Guardian, following entry of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney’s Office for the Eastern District of Michigan. At the time of payment, Guardian shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter to the United States in accordance with Section XVI of this Decree (Notices); by email to acctsreceivable.CINWD@epa.gov; and by mail to:

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

This transmittal letter shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States, et al v. Guardian Industries Corp.* (E.D. Mich.), and shall reference the civil action number and DOJ case number 90-5-2-1-11128.

51. Guardian shall pay the civil penalty due to the State of Iowa by check, payable to: “State of Iowa.” At the time of payment, Guardian shall send the check, together with a transmittal letter in accordance with Section XVI of this Decree (Notices); by mail to:

Iowa Department of Justice
Office of the Attorney General
Environmental Law Division
Lucas State Office Building, Rm. 18
Des Moines, IA 50319

52. Guardian shall pay the civil penalty due to the State of New York by check, payable to: “State of New York.” At the time of payment, Guardian shall send the check, together with a transmittal letter in accordance with Section XVI of this Decree (Notices); by mail to:

Environmental Protection Bureau
NYS Office of the Attorney General
The Capitol
Albany, New York 12224

53. Guardian shall not deduct any penalties paid under this Consent Decree pursuant to this Section or Section X (Stipulated Penalties) in calculating its federal, state, and local income taxes.

VII. PERMITS

54. Where any compliance obligation under this Consent Decree requires Guardian to obtain a federal, state, or local Permit, Guardian shall submit timely and complete applications and take all other actions necessary or required to obtain all such Permits. Guardian may seek relief under the provisions of Section XI (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 required to fulfill such obligation, if Guardian has submitted timely and complete

applications and has taken all other actions necessary to obtain all such Permits. If Guardian fails to submit a timely Permit application, Guardian shall be barred from asserting a claim under Section XI (Force Majeure) of the Consent Decree that is based on delays in receiving necessary Permits. EPA and/or the Plaintiff-Intervenors will use reasonable efforts to expeditiously review all Permit applications submitted by Guardian in order to meet the requirements of this Consent Decree.

55. For each Furnace at a Covered Facility (except for the Kingsburg Facility inlet CEMS), by no later than 180 Days before any applicable deadline specified in Section IV (Compliance Requirements), Guardian shall submit timely and complete applications to the Applicable State air permitting authority, and take all other actions necessary, to obtain any pre-construction, construction, and operating Permits required to install, construct, and operate Control Devices and/or CEMS required under Section IV (Compliance Requirements).

56. If not included as part of the Permit applications described above, by no later than one year after each compliance deadline for the final emission limits specified in Section IV, Guardian shall also either: 1) apply for a federally enforceable Permit issued either by EPA or pursuant to the applicable SIP, or 2) seek an amendment to the applicable SIP. The federally enforceable Permit or SIP amendment shall incorporate and require Guardian's compliance with the following requirements specified in Section IV (Compliance Requirements) of the Consent Decree:

- a. Requirements to Operate the Control Devices as specified in Paragraphs 10, 15, 19 and 22.
- b. Any applicable final emission limits, as well as the specified method of measuring and calculating emissions and averaging periods specified in Paragraphs 10-

12, 15, 16, 19, 20, and 22;

c. Requirements to install, calibrate, certify, maintain, and operate NO_x and SO₂ CEMS pursuant to Paragraphs 25-27;

d. Requirements to operate in accordance with 40 C.F.R. § 60.11(d) pursuant to Paragraph 29;

e. Requirements for annual PM and H₂SO₄ stack tests pursuant to Paragraphs 21 and 23; and

f. Any reporting and recordkeeping requirements associated with the Furnaces and Control Devices pursuant to Paragraphs 41-43 and 62-68.

57. This Consent Decree shall not terminate until the requirements set forth in Paragraph 55 are incorporated into a federally enforceable Permit or SIP amendment for each Covered Facility. Requirements incorporated into a federally enforceable Permit, other operating Permit, or SIP amendment pursuant to Paragraph 56 shall survive termination of this Consent Decree.

VIII. EMISSION CREDIT GENERATION

58. Prohibitions. Guardian shall not use, purchase, or otherwise obtain any Emission Credits in order to comply with the requirements of the Consent Decree. Guardian shall not sell, trade, or otherwise transfer any CD Emission Reductions. Any CD Emission Reductions shall not be considered a creditable contemporaneous emission decrease for the purpose of: (a) obtaining netting reductions and offsets under the Clean Air Act's PSD and NNSR programs respectively or (b) in determining whether a construction or modification project would result in a significant emissions increase or significant net emissions increase in any NSR (major or minor) Permit or Permit proceeding.

59. Permissible Uses. Notwithstanding the prohibitions in the preceding Paragraph of this Section, nothing in the Consent Decree shall preclude Guardian from generating or using Emission Credits for any pollutants other than SO₂, NO_x, PM (including filterable PM, PM₁₀, and PM_{2.5}) and H₂SO₄. Nothing in the Consent Decree shall preclude Guardian from using, selling or transferring Emission Credits of NO_x, SO₂, PM, and H₂SO₄ that may be generated as a result of:

- a. Achieving and maintaining emission rates (including by permanently shutting down a Furnace) at the Covered Facilities that are more stringent than the emission limits required by Section IV (Compliance Requirements) so long as Guardian:
 - (i) timely reports the generation of such surplus Emissions Credits in accordance with Section IX (Reporting Requirements) of the Consent Decree and
 - (ii) accepts the more stringent emission rate(s) in a federally enforceable Permit for the applicable Covered Facility. For purposes of this subparagraph, Guardian may only generate surplus Emission Credits to the extent that they represent the difference between CD Emission Reductions and the more stringent emission rate(s); or
- b. Reducing emissions from emissions units that are not subject to an emission limitation under this Consent Decree, except that such Emission Credits may not be used to comply with any requirement of the Consent Decree

60. Notwithstanding the prohibitions in Paragraph 58, nothing in this Consent Decree prohibits Guardian from seeking, nor authorizes Guardian to utilize emission reductions from the installation of Control Devices required by this Consent Decree in determining whether a project on the same Furnace that includes both the installation of Control Devices under this Consent

Decree and other simultaneous construction that is permitted at the same time (either a single Permit or multiple Permits), triggers New Source Review.

61. Nothing in this Consent Decree is intended to preclude CD Emission Reductions from being considered by EPA or a state as creditable contemporaneous emission decreases for the purposes of attainment demonstrations submitted pursuant to § 110 of the Act, 42 U.S.C. § 7410, or in determining impacts on NAAQS, PSD increments, or air quality-related values, including visibility in a Class I area.

IX. REPORTING REQUIREMENTS

62. Until termination of this Consent Decree pursuant to Section XXI, Guardian shall submit to EPA and the Plaintiff-Intervenors a written, annual progress report by no later than March 1 of each Calendar Year.

63. Each annual report shall include the following information for the preceding Calendar Year: 1) the status of Guardian's progress toward implementing Section IV (Compliance Requirements); 2) identification of which Facilities will have Control Devices installed by December 31 of that year (or, if applicable, will shut down); 3) a description of any Section IV Compliance Requirements completed; 4) any problems encountered or anticipated in implementing Section IV (Compliance Requirements), together with implemented or proposed solutions; 5) a summary of all permitting activity pertaining to compliance with the Consent Decree and the status of any necessary Permit applications; 6) for each Furnace that is subject to a final emissions limit in Section IV, a record of that Furnace's daily 30-day Rolling Average Removal Efficiency or 30-day Rolling Average Rate for NO_x and SO₂; 7) the actual monthly emissions of NO_x and SO₂, from each Furnace at the Covered Facilities measured using CEMS, and for PM and H₂SO₄ emissions at the Covered Facilities as estimated based on the most recent

source/stack test(s); 8) the results of any source/stack testing performed at any Furnace at a Covered Facility; 9) monthly production of glass; 10) a list of Days excluded from the 30-day Rolling Average Emission Rate and 30-day Rolling Average NO_x Removal Efficiency due to an Abnormally Low Production Rate Day, Idling, Furnace Startup, Malfunction, or Maintenance; 11) the pounds of NO_x or SO₂ emitted from each Day excluded from the 30-day Rolling Averages (where applicable); 12) payment of any civil or stipulated penalties; and 13) any other information required to be recorded in Paragraphs 41-43.

64. Each annual report shall also include a description of any non-compliance with the requirements of this Consent Decree and 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 Guardian violates, or has reason to believe that it may have violated, any requirement of this Consent Decree, Guardian shall notify the United States and applicable Plaintiff-Intervenor of such violation and its likely duration, in writing and by telephone, fax, or email, within ten (10) Days of the Day Guardian first became aware of the violation or potential violation. This notice shall provide 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, Guardian shall explain this in the report. Guardian 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 Guardian first becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Guardian of its obligation to provide the notice required by Section XI (Force Majeure) of this Consent Decree.

65. Whenever any violation of this Consent Decree or any other event affecting Guardian's performance under this Consent Decree, or affecting the performance of a Furnace or Covered Facility, may pose an immediate threat to the public health or welfare or the environment, Guardian shall notify EPA and the applicable Plaintiff-Intervenor orally or by electronic or facsimile transmission as soon as possible, but in no case no later than 24 hours after Guardian first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.

66. Guardian shall notify EPA if it makes a decision to change the Furnace intended for the next Installation of Controls or the Furnace intended for permanent shutdown from that reported in the annual report submitted under Paragraph 62.

67. All reports shall be submitted to the persons designated in Section XVI of this Consent Decree (Notices).

68. Each report submitted by Guardian under this Section shall be signed by an official of the submitting party and shall include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

69. The reporting requirements of this Consent Decree do not relieve Guardian of any reporting obligations required by the Clean Air Act or its implementing regulations, or by any other federal, state, or local law, regulation, Permit, or other requirement.

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

X. STIPULATED PENALTIES

71. Guardian shall be liable for stipulated penalties to the United States and applicable Plaintiff-Intervenor for violations of the Consent Decree as specified below, unless excused under Section XI (Force Majeure). 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.

72. Late Payment of Civil Penalty. If Guardian fails to pay the civil penalty required to be paid under Section VI of this Decree (Civil Penalty) when due, Guardian shall pay a stipulated penalty of \$1,000 per Day for each Day that the payment is late, plus interest accruing from the date the payment was due, at the rate specified in 28 U.S.C. § 1961 as of the due date.

73. Emission Limits. The following stipulated penalties shall accrue per violation for each violation of any NO_x, SO₂, H₂SO₄, and/or PM interim or final emission limit specified in Section IV of this Consent Decree:

- a. Where the violation exceeds the applicable emission limit by less than or equal to 10 percent:

Penalty Per Violation Per Day	Period of Noncompliance
\$750	1 st through 30 th Day
\$1,500	31 st Day and beyond

b. Where the violation exceeds the applicable emission limit by more than 10 percent:

Penalty Per Violation Per Day	Period of Noncompliance
\$1,500	1 st through 14 th Day
\$2,250	15 th through 30 th Day
\$3,000	31 st Day and beyond

c. Emission limit violations during stack/source testing: For each stack/source test required by Section IV where the applicable interim or final emission limit for PM or H₂SO₄, is exceeded, a stipulated penalty of \$5,000 shall accrue per stack/source test per Calendar Year.

74. Compliance Deadlines for Installing Control Devices or Alternative Primary Control Technology. The following stipulated penalties shall accrue per violation per Day for each violation of any compliance deadline specified in Section IV of the Consent Decree regarding the installation and operation of Control Devices or alternative Primary Control Technology:

Penalty Per Violation Per Day	Period of Noncompliance
\$2,250	1 st through 14 th Day

\$3,500	15 th through 30 th Day
\$5,000	31 st Day and beyond

75. Installation of CEMS. The following stipulated penalties shall accrue per violation per Day for each violation of any requirement identified in Section IV of the Consent Decree regarding the installation and operation of a CEMS by the specified deadlines:

Penalty Per Violation Per Day	Period of Noncompliance
\$300	1st through 30 th Day
\$600	31 st through 60 th Day
\$1,200	61 st Day and beyond

76. Reporting Requirements. The following stipulated penalties shall accrue per violation per Day for each violation of the reporting requirements of Section IX of the Consent Decree:

Penalty Per Violation Per Day	Period of Noncompliance
\$250	1 st through 14 th Day
\$500	15 th through 30 th Day
\$1,000	31 st Day and beyond

77. Permitting Requirements. The following stipulated penalties shall accrue per violation per Day for each violation of any permitting requirement identified in Section VII of this Consent Decree:

Penalty Per Violation Per Day	Period of Noncompliance
\$750	1 st through 14 th Day
\$1,250	15 th through 30 th Day
\$2,000	31 st Day and beyond

78. Other Violations. The following stipulated penalties shall accrue per violation per Day for each violation of any other requirement of the Consent Decree:

Penalty Per Violation Per Day	Period of Noncompliance
\$750	1 st through 14 th Day
\$1,000	15 th Day and beyond

79. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree. Per Day penalties do not increase from one tier to the next unless the violations are continuous.

80. For violations relating to any Covered Facility, Guardian shall pay any stipulated penalty within 30 Days of receipt of the written demand by either the United States or applicable Plaintiff-Intervenor, unless Guardian elects within 20 Days of receipt of the written demand to dispute the obligation in accordance with the dispute resolution procedure set forth in Section XII below.

81. Stipulated penalties for violations related to the DeWitt Facility, Kingsburg Facility, and Geneva Facility shall be payable as: 50 percent to the United States and 50 percent

to the applicable Plaintiff-Intervenor(s). The United States and applicable Plaintiff-Intervenor(s) will consult with each other prior to making a demand for stipulated penalties. The Party making a demand for payment of a stipulated penalty shall simultaneously send a copy of the demand to the other Party(ies).

82. The United States or an applicable Plaintiff-Intervenor may, in the unreviewable exercise of its discretion, reduce or waive the amount of stipulated penalties otherwise due to that Party under this Consent Decree.

83. Stipulated penalties shall continue to accrue 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 United States or a Plaintiff-Intervenor that is not appealed to the Court, Guardian shall pay accrued penalties determined to be owing, together with interest, to the United States and Plaintiff-Intervenor(s) within 30 Days of the effective date of the agreement or Guardian's receipt of the United States' or Plaintiff-Intervenor's decision or order.

b. If the dispute is appealed to the Court and the United States or a Plaintiff-Intervenor prevails in whole or in part, Guardian shall pay all accrued penalties determined by the Court to be owing, together with interest, 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, Guardian shall pay all accrued penalties determined to be owing, together with interest, within 15 Days of receiving the final appellate court decision.

84. Guardian shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 50, except that the transmittal

letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid. Guardian shall pay stipulated penalties owing to the applicable Plaintiff-Intervenor in the manner set forth in Paragraphs 51 and 52.

85. If Guardian fails to pay stipulated penalties according to the terms of this Consent Decree, Guardian shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States or an applicable Plaintiff-Intervenor from seeking any remedy otherwise provided by law for Guardian's failure to pay any stipulated penalties.

86. Subject to the provisions of Section XIV of this Consent Decree (Effect of Settlement/Reservation of Rights), 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 and the Plaintiff-Intervenors for Guardian's violation of this Consent Decree or applicable law, except that for any violation of relevant statutory, regulatory, or permitting requirements for which this Consent Decree provides for payment of a stipulated penalty, the United States and the Plaintiff-Intervenor will elect whether to seek stipulated penalties or to seek statutory penalties for such violation.

XI. FORCE MAJEURE

87. "Force Majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Guardian, of any entity controlled by Guardian, or of Guardian's contractors that delays or prevents the performance of any obligation under this Consent Decree despite Guardian's best efforts to fulfill the obligation. The requirement that Guardian 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 in order to prevent or minimize any resulting delay to the greatest extent possible. Force Majeure does not include Guardian's financial inability to perform any obligation under this Consent Decree.

88. 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, Guardian shall provide notice orally or by electronic or facsimile transmission to EPA and the applicable Plaintiff-Intervenor(s), within ten (10) Days of when Guardian first knew that the event might cause a delay. Within thirty (30) Days thereafter, Guardian shall provide in writing to EPA and the applicable Plaintiff-Intervenor(s) 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; Guardian'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 Guardian, such event may cause or contribute to an endangerment to public health, welfare or the environment. Guardian 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 Guardian 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. Guardian shall be deemed to know of any circumstance of which Guardian, any entity controlled by Guardian, or Guardian's contractors knew or should have known.

89. If EPA, after a reasonable opportunity for review and comment by the applicable Plaintiff-Intervenor(s), 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 EPA 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. EPA will notify Guardian in writing of the length of the extension, if any, for performance of the obligations affected by the Force Majeure event.

90. If EPA, after a reasonable opportunity for review and comment by the applicable Plaintiff-Intervenor(s), does not agree that the delay or anticipated delay has been or will be caused by a Force Majeure event, EPA will notify Guardian in writing of its decision.

91. If Guardian elects to invoke the dispute resolution procedures set forth in Section XII (Dispute Resolution), it shall do so no later than 15 Days after receipt of EPA's notice. In any such proceeding, Guardian 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 Guardian complied with the requirements of Paragraphs 87 and 88. If Guardian carries this burden, the delay at issue shall be deemed not to be a violation by Guardian of the affected obligation of this Consent Decree identified to EPA and the Court.

XII. DISPUTE RESOLUTION

92. 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. The procedures set forth in this Section do not apply to actions by the United States or a Plaintiff-Intervenor to enforce obligations of Guardian that have not been disputed in accordance with this Section.

93. Except as otherwise expressly provided in the Consent Decree, the dispute resolution procedures set forth in this Section shall be available to resolve any and all disputes arising under the Consent Decree, provided that the Party invoking the procedures has made a good faith attempt to resolve the matter with the other Party or Parties involved.

94. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the Parties to the Consent Decree to another advising the other appropriate Party(ies) of a dispute pursuant to Section XVI. The notice shall describe the nature of the dispute and shall state the noticing Party's position with regard to such dispute. The Party or Parties receiving such notice will acknowledge receipt of the notice and the Parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) Days from the receipt of such notice.

95. Informal Dispute Resolution. Disputes submitted to dispute resolution shall, in the first instance, be the subject of informal negotiations between the Parties. Such period of informal negotiations shall not extend beyond thirty (30) Days from the date of the first meeting between representatives of the Parties, unless the Parties involved in the dispute agree that this period should be shortened or extended.

96. Formal Dispute Resolution. In the event that the Parties are unable to reach agreement during such informal negotiations period, the United States and/or the applicable Plaintiff-Intervenor(s), shall provide Guardian with a written summary of its/their position regarding the dispute. The position advanced by the United States and/or the applicable Plaintiff-Intervenor(s), will be considered binding unless, within forty-five (45) Days of Guardian's receipt of the written summary, Guardian invokes formal dispute resolution by filing with the Court a petition which describes the nature of the dispute and Guardian's position on the dispute.

The United States and/or the applicable Plaintiff-Intervenor(s) shall respond to the petition within forty-five (45) Days of filing.

97. In the event that the United States and the applicable Plaintiff-Intervenor(s) are unable to reach agreement among themselves with regard to Guardian's claim, the position of the United States shall be the final position.

98. In a formal dispute resolution proceeding under this Section, the Court shall decide all disputes pursuant to applicable principles of law for resolving such disputes. In their filings with the Court under Paragraph 96, the Parties shall state their respective positions as to the applicable standard of law for resolving the particular dispute.

99. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set forth in this Section may be shortened upon motion of one of the Parties to the dispute or by agreement of the Parties to the dispute. The Parties do not intend that the invocation of this Section by a Party cause the Court to draw any inferences nor establish any presumptions adverse to either Party as a result of invocation of this section.

100. In appropriate circumstances, as part of the resolution of any matter submitted to the Court under this Section, the Parties involved in the dispute may agree to, or the Court may order, an extension or modification of the schedule for completion of work under the Consent Decree to account for the delay in the work that occurred as a result of dispute resolution. Guardian shall be liable for stipulated penalties for its failure thereafter to complete the work in accordance with the extended or modified schedule. Invocation of dispute resolution with respect to any of Guardian's obligations under the Consent Decree shall not, of itself, excuse or extend the time for performance of any other obligation of Guardian under the Consent Decree.

XIII. INFORMATION COLLECTION AND RETENTION

101. The United States, the applicable Plaintiff-Intervenor(s), and their representatives, including attorneys, contractors, and consultants, shall have the right of entry into any Covered Facility, at all reasonable times, upon presentation of credentials, to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States or applicable Plaintiff-Intervenor in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Guardian or its representatives, contractors, or consultants;
- d. obtain documentary evidence, including photographs (which Guardian may request copies of) and similar data; and
- e. assess Guardian's compliance with this Consent Decree.

102. Upon request, Guardian shall provide EPA and the applicable Plaintiff-Intervenor(s) or their authorized representatives splits of any samples taken by Guardian. Upon request, EPA and the applicable Plaintiff-Intervenor(s), if any, shall provide Guardian splits of any samples taken by EPA or a Plaintiff-Intervenor.

103. Guardian shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Guardian's performance of its obligations under this Consent Decree. These information-retention requirements shall apply at each Covered Facility until three years after the requirements of this Consent Decree are terminated at the respective Covered Facility. This

information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States or a Plaintiff-Intervenor, Guardian shall provide copies of any documents, records, or other information maintained under this Paragraph.

104. At the conclusion of the information-retention period provided in the preceding Paragraph, Guardian shall notify the United States and the Plaintiff-Intervenor at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States or a Plaintiff-Intervenor, Guardian shall deliver any such documents, records, or other information to EPA or the Plaintiff-Intervenor(s). Guardian may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Guardian asserts such a privilege, it shall provide the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the name and title of each author of the document, record, or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Guardian. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

105. Guardian may also assert that information required to be provided under this Section is protected as Confidential Business Information (“CBI”) under 40 C.F.R. Part 2 and any applicable state law. As to any information that Guardian seeks to protect as CBI, Guardian shall follow the procedures set forth in 40 C.F.R. Part 2 and any applicable state law.

106. 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 a Plaintiff-Intervenor pursuant to applicable federal or state laws, regulations, or Permits, nor does it limit or affect any duty or obligation of Guardian to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or Permits.

XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

107. This Consent Decree resolves the civil claims of the United States and Plaintiff-Intervenors for the violations alleged in the Complaints filed in this action through the date the Consent Decree is lodged with the Court. This Consent Decree also resolves the civil claims of the United States and Plaintiff-Intervenors for the violations alleged in the notice of violation issued to Guardian on May 27, 2015.

108. With respect to emissions of NO_x, SO₂, PM (including PM₁₀ and PM_{2.5}), and H₂SO₄, entry of this Consent Decree resolves the civil liability of Guardian to the United States and the Plaintiff-Intervenors for the following claims arising from any construction or modification commenced at the Furnaces of the Covered Facilities prior to the lodging of this Consent Decree:

- a. Claims based on Part C or D of Subchapter I of the Clean Air Act, 42 U.S.C. §§ 7470-7492, 7501-7515, and the regulations promulgated thereunder at 40 C.F.R. § 52.21, 40 C.F.R. §§ 51.165(a) and (b), and 51.166, 40 C.F.R. Part 51, Appendix S, and 40 C.F.R. § 52.24;
- b. Claims based on Sections 502(a) and 504(a) of Title V of the Clean Air Act, 42 U.S.C. §§ 7661a(a) and 7661c(a), but only to the extent that such claims are

based on Guardian's failure to obtain a Permit that reflects applicable requirements imposed under Parts C or D of Subchapter I; and

c. Claims based on any applicable state and local law counterparts to the provisions listed in the preceding subparagraphs of this Paragraph 108, including claims based on counterpart provisions of the federally-approved and enforceable SIPs in which the Covered Facilities are located.

109. The United States and Plaintiff-Intervenors reserve all legal and equitable remedies available to enforce the provisions of this Consent Decree. This Consent Decree shall not be construed to limit the rights of the United States or Plaintiff-Intervenors to obtain penalties or injunctive relief under the CAA or implementing regulations, or under other federal or state laws, regulations, or Permit conditions, except as expressly specified in Paragraphs 107-108. The United States and Plaintiff-Intervenors 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, Guardian's Covered Facilities, whether related to the violations addressed in this Consent Decree or otherwise.

110. In any subsequent administrative or judicial proceeding initiated by the United States or a Plaintiff-Intervenor for injunctive relief, civil penalties, other appropriate relief relating to the Covered Facilities or Guardian's violations, Guardian 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 Plaintiff-Intervenor(s) 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 Paragraphs 107-108.

111. This Consent Decree is not a Permit, or a modification of any Permit, under any federal, state, or local laws or regulations. Guardian is responsible for achieving and maintaining complete compliance with all applicable federal, state, and local laws, regulations, and Permits; and Guardian'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 Plaintiff-Intervenors do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that Guardian's compliance with any aspect of this Consent Decree will result in compliance with provisions of the CAA, 42 U.S.C. §§ 7401, et seq., or with any other provisions of federal, state, or local laws, regulations, or Permits.

112. This Consent Decree does not limit or affect the rights of Guardian or of the United States or the Plaintiff-Intervenors 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 Guardian, except as otherwise provided by law.

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

XV. COSTS

114. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States and Plaintiff-Intervenors shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Guardian.

XVI. NOTICES

115. Unless otherwise specified herein, whenever notifications, submissions, statements of position, or communications are required by this Consent Decree, they shall be

made in writing, addressed as follows, and delivered by U.S. Mail, postage pre-paid, overnight mail or registered mail, return receipt requested. However, where an e-mail address is provided below, Guardian shall instead submit all Consent Decree submissions to the designated recipient electronically. Electronic submissions will be deemed submitted on the date they are transmitted electronically and only one electronic submission is required per recipient.

To the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-11128

To EPA:

Director, Air Enforcement Division
U.S. Environmental Protection Agency
Office of Civil Enforcement
William Jefferson Clinton South Bldg.
1200 Pennsylvania Avenue, N.W.
Mail Code 2242-A
Washington, DC 20460

Chief
Air Compliance Branch
U. S. Environmental Protection Agency, Region 2
290 Broadway
New York, New York 10007-1866

Associate Director
Office of Air Enforcement & Compliance Assistance
U.S. Environmental Protection Agency, Region 3
Mailcode 3AP20
1650 Arch Street
Philadelphia, PA 19103

Chief
Air Enforcement and EPCRA Branch
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth St. SW
Atlanta, GA 30303-8960

Chief
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, IL 60604

Associate Director
Air/Toxics Inspection and Coordination Branch
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Mailcode 6EN-A
Dallas, TX 75202-2733

Chief
Office of Air Enforcement
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, KS 66219

Chief
Office of Air Enforcement
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

To the State of Iowa:

Environmental Program Supervisor
Iowa Department of Natural Resources
7900 Hickman Rd., Suite 1
Windsor Heights, IA 50324

Director, Environmental Law Division
Iowa Department of Justice
Lucas State Office Building
321 E. 12th Street, Ground Level, Room 018
Des Moines, IA 50319

To the State of New York:

Regional Air Pollution Control Engineer
New York State Department of Environmental Conservation
6274 East Avon – Lima Road
Avon, NY 14414

To the San Joaquin Valley Unified Air Pollution Control District

District Counsel
San Joaquin Valley Unified Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno, CA 93726

Director of Compliance
San Joaquin Valley Unified Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno, CA 93726

To Guardian:

Global Environmental Health & Safety Director
Guardian Industries Corp.
2300 Harmon Road
Auburn Hills, MI 48326-1714

General Counsel
Guardian Industries Corp.
2300 Harmon Road
Auburn Hills, MI 48326-1714

Guardian Industries Flat Glass Americas
Environmental Health & Safety Manager
Guardian Industries Corp.
2300 Harmon Road
Auburn Hills, MI 48326-1714

116. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

117. Notices submitted pursuant to this Section shall be deemed submitted upon mailing or emailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XVII. SALES OR TRANSFER OF OPERATIONAL OR OWNERSHIP INTERESTS

118. If Guardian proposes to sell or transfer an operational or ownership interest in any Facility to an entity unrelated to Guardian (“Third Party”), it shall advise the Third Party in writing of the existence of this Consent Decree prior to such closing, and shall send a copy of such written notification to the United States and the applicable Plaintiff-Intervenor pursuant to Section XVI (Notices) of this Consent Decree prior to such proposed closing.

119. Guardian shall condition any transfer, in whole or in part, of ownership, operation of, or other interest in any of the Covered Facilities upon the execution by the Third Party of a modification to the Consent Decree, making the terms and conditions of the Decree that apply to such Facility applicable to the Third Party. Guardian shall submit the application for modification to the Court promptly upon such transfer making the terms and conditions of the Consent Decree that apply to such Facility applicable to the Third Party.

120. Upon approval by the Court of such modification, pursuant to Section XX (Modification) of this Consent Decree, making the Third Party a party to this Consent Decree and liable for all the requirements of this Decree that may be applicable to the transferred or purchased interests, Guardian shall be released from the obligations and liabilities of this Consent Decree as to the transferred or purchased interests, provided that all Civil Penalties pursuant to Section VI (Civil Penalty) have been fully paid and the environmental mitigation project pursuant to Section V (Environmental Mitigation) has been fully funded or implemented.

121. This Consent Decree shall not be construed to impede the transfer of any interests between Guardian and any Third Party so long as the requirements of this Consent Decree are met. This Section XVII applies to transfers of assets or interest only, and shall not be construed to affect or apply to mergers or other corporate transactions in which the shares of Guardian or its affiliate corporation are acquired by any Third Party and the surviving corporation, by operation of law, assumes all of the assets and liabilities of Guardian pursuant to this Consent Decree related to the Covered Facilities.

122. Notwithstanding the foregoing, however, Guardian may not assign, and may not be released from, any obligation under this Consent Decree that is not specific to the purchased or transferred interests, including Section VI (Civil Penalty) and Section V (Environmental Mitigation).

XVIII. EFFECTIVE DATE

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

XIX. RETENTION OF JURISDICTION

124. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of: 1) resolving disputes arising under this Consent Decree pursuant to Section XII (Dispute Resolution), 2) entering orders modifying this Decree pursuant to Section XX (Modification), or 3) effectuating or enforcing compliance with the terms of this Consent Decree.

XX. MODIFICATION

125. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by the United States, the applicable Plaintiff-Intervenor(s), if any, and Guardian. Where the modification constitutes a material change to the Consent Decree, it shall be effective only upon approval by the Court.

126. Any disputes concerning modification of this Consent Decree shall be resolved pursuant to Section XII of this Decree (Dispute Resolution). The Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXI. TERMINATION

127. After Guardian has completed the requirements of Sections IV (Compliance Requirements) and VII (Permits) of the Consent Decree, has complied with all other requirements of the Consent Decree, and has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, Guardian may serve upon the United States and applicable Plaintiff-Intervenor(s), if any, a request for termination, stating that Guardian has satisfied those requirements, together with all necessary supporting documentation. If Guardian has completed the requirements of this Consent Decree as to any Covered Facility, Guardian may seek to terminate the requirements of this Consent Decree as to that Covered Facility through the modification procedures set forth in Section XX. Notwithstanding Guardian's request for termination, the permitting requirements of Paragraphs 55-56 and the information retention obligations of Paragraph 103 shall remain in effect and continue until completed in accordance with the terms contained therein.

128. Following receipt by the United States and applicable Plaintiff-Intervenor(s), if any, of Guardian's request for termination, the Parties shall confer informally concerning the request and any disagreement that the Parties may have as to whether Guardian has satisfactorily complied with the requirements for terminating this Consent Decree. If the United States after consulting with any applicable Plaintiff-Intervenor(s) agrees that the Consent Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Consent Decree.

129. If the United States after consultation with any applicable Plaintiff-Intervenor(s) does not agree that the Decree may be terminated, Guardian may invoke dispute resolution under Section XII of the Consent Decree. However, Guardian shall not seek dispute resolution of any dispute regarding termination until 60 Days after service of its request for termination.

XXII. PUBLIC PARTICIPATION

130. 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. Guardian consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Consent Decree, unless the United States has notified Guardian in writing that it no longer supports entry of the Consent Decree.

XXIII. SIGNATORIES/SERVICE

131. Each undersigned representative of Guardian, State of Iowa, State of New York, San Joaquin Valley Unified Air Pollution Control District, and the Assistant Attorney General

for the Environment and Natural Resources Division of the Department of Justice 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 document.

132. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Guardian agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXIV. INTEGRATION

133. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Consent Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. No other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Consent Decree or the settlement it represents, nor shall it be used in construing the terms of the Consent Decree.

XXV. APPENDICES

134. The following appendices are attached to and incorporated as part of this Consent Decree:

“Appendix A” is the environmental mitigation project description.

“Appendix B” is the Burn Cleaner program guidelines.

“Appendix C” is the Furnace startup log.

XXVI. FINAL JUDGMENT

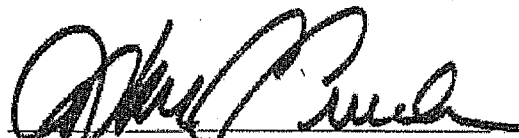
135. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States, the State of New York, State of Iowa, the San Joaquin Valley Unified Air Pollution Control District, and Guardian Industries Corp.

Dated and entered this _____ day of _____, 2015.

UNITED STATES DISTRICT JUDGE
Eastern District of Michigan

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America; et al. v. Guardian Industries Corp.* (E.D. Mich.).

FOR PLAINTIFF THE UNITED STATES OF AMERICA:



JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice



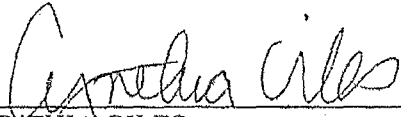
MELANIE SHEPHERDSON
By Special Appointment as a
Department of Justice Attorney
District of Columbia Bar No. 480058
U.S. Environmental Protection Agency
Region 9
Office of Regional Counsel
75 Hawthorne St.
San Francisco, CA 94105
Shepherdson.Melanie@epa.gov
(415) 972-3923




ELLEN CHRISTENSEN
Assistant United States Attorney
Eastern District of Michigan

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).


**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY:**



CYNTHIA GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460



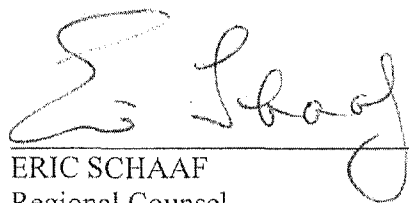
SUSAN SHINKMAN
Director, Office of Civil Enforcement
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460



for PHILLIP A. BROOKS
Director, Air Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

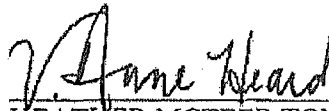
**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 2:**

A handwritten signature in black ink, appearing to read "Eric SchAAF", written over a horizontal line.

ERIC SCHAAF
Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 4:**



HEATHER MCTEER TONEY

Regional Administrator

U.S. Environmental Protection Agency

Region 4

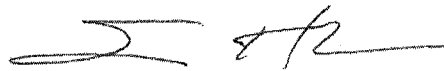
Sam Nunn Atlanta Federal Center

61 Forsyth Street, SW

Atlanta, GA 30303

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

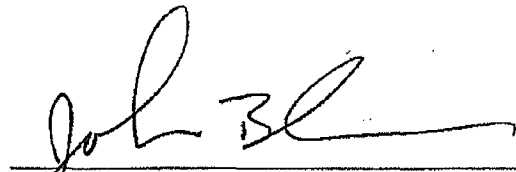
**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 5:**



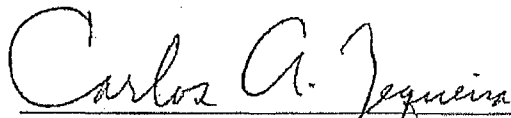
SUSAN HEDMAN
Regional Administrator
U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd.
Chicago, IL 60604

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 6:**



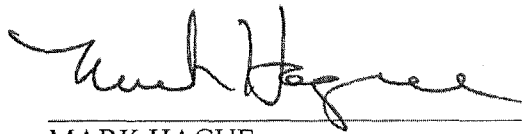
JOHN BLEVINS
Division Director
Compliance Assurance and Enforcement Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Ave.
Dallas, TX 75202-2733




CARLOS A. ZEQUEIRA BRINSFIELD
Senior Assistant Regional Counsel
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue (6RC)
Dallas, Texas 75202-2733

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

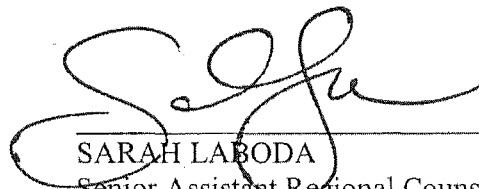
**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 7:**



MARK HAGUE
Acting Regional Administrator
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd
Lenexa, Kansas 66219



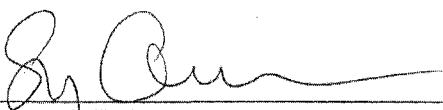
DAVID COZAD
Regional Counsel
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd
Lenexa, Kansas 66219



SARAH LABODA
Senior Assistant Regional Counsel
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd
Lenexa, Kansas 66219

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

**FOR THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY,
REGION 9:**


For JARED BLUMENFELD
Regional Administrator, Region 9
U.S. Environmental Protection Agency
75 Hawthorne St.
San Francisco, CA 94105

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

**FOR THE PLAINTIFF-INTERVENOR,
STATE OF IOWA:**

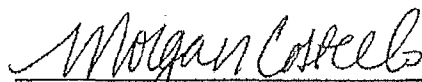
THOMAS J. MILLER
Attorney General
Of the State of Iowa



DAVID S. STEWARD
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

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

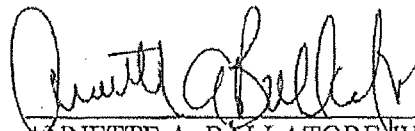
**FOR THE PLAINTIFF-INTERVENOR,
STATE OF NEW YORK:**



MORGAN A. COSTELLO
Assistant Attorney General
Environmental Protection Bureau
New York State Office of the Attorney General
The Capital
Albany, NY 12224
(518) 776-2392

Subject to the notice and comment provisions of 28 C.F.R. § 50.7, THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

**FOR THE PLAINTIFF-INTERVENOR,
SAN JOAQUIN VALLEY UNIFIED AIR
POLLUTION CONTROL DISTRICT:**



ANNETTE A. BALLATORE-WILLIAMSON
District Counsel
San Joaquin Valley Unified Air Pollution Control
District
1990 E. Gettysburg Avenue
Fresno, CA 93726
(559) 230-6033

THE UNDERSIGNED PARTIES enter into this Consent Decree entered in the matter of the *United States of America, et al. v. Guardian Industries Corp.* (E.D. Mich.).

**FOR THE DEFENDANT GUARDIAN
INDUSTRIES CORP.:**

A handwritten signature in black ink, appearing to read 'K Baird', written over a horizontal line.

Kevin Baird
President – Glass Group