SWCAA
Southwest Clean Air Agency

5101 NE 82nd Ave Ste 102
Vancouver, WA 98662
(360) 574-3058
www.swcleanair.gov

April 11, 2025

Steven Smith, Plant Manager
Cardinal FG - Winlock
545 Avery Road West
Winlock, WA 98596

Re: Draft Air Operating Permit for Cardinal FG - Winlock

Dear Mr. Smith:

The Southwest Clean Air Agency (SWCAA) is issuing a draft Air Operating Permit to Cardinal FG - Winlock. This is a renewal permit.

A copy of the draft Air Operating Permit and associated Basis Statement are enclosed with this letter. Electronic copies of each document will also be available on SWCAA's website at www.swcleanair.gov. Copies of the proposed Air Operating Permit and Basis Statement will be sent to you following the close of the public comment period for the draft permit.

If you have any questions or comments, please contact me at (360) 574-3058 ext. 126.

Sincerely,

Wess Safford
AQ Engineer

Enclosures

Cardinal FG Winlock

Air Operating Permit
SW08-14-R2

April 11, 2025

DRAFT

Southwest Clean Air Agency
5101 NE 82nd Ave, Suite 102
Vancouver, WA 98662
Telephone: (360) 574-3058

AIR OPERATING PERMIT NUMBER: SW08-14-R2

ISSUED TO: Cardinal FG Company
545 Avery Road W
Winlock, WA 98596

PLANT SITE: Cardinal FG Winlock
545 Avery Road W
Winlock, WA 98596

NATURE OF BUSINESS: Flat Glass Manufacturing

STANDARD INDUSTRIAL CLASSIFICATION CODE (SIC): 3211

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM CODE (NAICS): 327211

AEROMETRIC INFORMATION RETRIEVAL SYSTEM NUMBER: 53-041-00006

EFFECTIVE DATE: *XXXX XX, 2025*

EXPIRATION DATE: *XXXX XX, 2030*

RENEWAL APPLICATION DUE DATE: *XXXX XX, 2029*

PERMIT ENGINEER:

Wess Safford, Air Quality Engineer — Date: 4/11/2025

REVIEWED BY:

Clinton Lamoreaux, Chief Engineer — Date

Uri Papish, Executive Director — Date

TABLE OF CONTENTS

I. ABBREVIATIONS

List of Common Abbreviations

ADP	Air Discharge Permit
AOP	Air Operating Permit
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CO	Carbon monoxide
EPA	U.S. Environmental Protection Agency
EU	Emission unit
EU#	Emission unit numbered "#"
FCAA	Federal Clean Air Act
G#	General term or condition numbered "#"
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous air pollutant
IEU	Insignificant emission unit
IEU#	Insignificant emission unit numbered "#"
lb/ton_g	Pounds per ton glass drawn
M#	Monitoring term or condition numbered "#"
MMBtu	Million British thermal units
N#	Nonapplicable requirement numbered "#"
NH_3	Ammonia
NO_X	Oxides of nitrogen
NSR	New Source Review
O_2	Oxygen
P#	Refers to a specific permit provision numbered "#"
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in diameter
$PM_{2.5}$	Particulate matter less than 2.5 microns in diameter
ppmvd	Parts per million by volume, dry
PTE	Potential to emit
R#	Refers to a specific reporting term or condition numbered "#"
RCW	Revised Code of Washington
Req-#	Refers to a specific applicable requirement numbered "#"
SO_2	Sulfur dioxide
SIP	State implementation plan
SWCAA	Southwest Clean Air Agency
TAP	Toxic air pollutant
ton_g	Ton of glass drawn
tpd	Tons per day
tpy	Tons per year
VOC	Volatile organic compound
WAC	Washington Administrative Code

Terms not otherwise defined in this Permit have the meaning assigned to them in the referenced regulations or the dictionary definition, as appropriate.

II. REGULATORY BASIS

This Air Operating Permit, hereafter referred to as the "Permit", is authorized under the procedures established in Washington Administrative Code (WAC) 173-401 and Title V (US Code §7661 *et seq.*) of the Federal Clean Air Act (FCAA). As used in this Permit, "term", "condition", "standard", and "requirement" have the same meaning as "applicable requirement" specified under 40 CFR 70.2 and WAC 173-401-200.

The Permit is intended to contain a comprehensive list of the local, state, and federal air pollution regulations and standards applicable to the Permittee's facility and to assure and provide for certification of compliance with those requirements. As listed in Sections V through VIII, the requirements describe the emissions limitations, operating requirements, ambient monitoring, recordkeeping requirements, and reporting frequencies for the facility and cite the originating local, state, or federal regulation or requirement. Federal requirements may be direct (e.g., FCAA or CFR citation) or established under the Washington State Implementation Plan (SIP). Each citation in the table also includes one or two effective dates of the cited regulation. Where there are two dates for the same regulatory citation, the underlying requirement is substantially the same, but the date of the regulation used for enforcement purposes would be different (e.g., federally enforceable versus SWCAA enforceable).

SWCAA is the primary authority that can enforce *all* requirements – federal, state, and local requirements – listed in the Permit. However, the EPA and private citizens may also take enforcement actions under the Permit for those requirements that are federally enforceable; federal regulations, regulations that have a SIP date, and terms of ADPs are federally enforceable. Rules, regulations, and permits that are not SIP approved or federally promulgated are not federally enforceable and are denoted as "*Local*" to indicate they are only enforceable by SWCAA.

For subparts of 40 CFR 60, 40 CFR 61, and 40 CFR 63 delegated to SWCAA by EPA, all monitoring, reporting, or recordkeeping that is required to be sent to the EPA Administrator needs only to be sent to SWCAA as the delegated authority. For specific subparts that SWCAA has not been delegated implementation and enforcement authority by the EPA, all monitoring, reporting, or recordkeeping that is required to be sent to the EPA Administrator must be sent to both SWCAA and the EPA Administrator.

Federal Regulations	Regulation Version Effective Date	SWCAA Delegation Effective Date
40 CFR 51	April 11, 2025	Not Delegated
40 CFR 52	April 11, 2025	Not Delegated
40 CFR 60 Subpart A	April 11, 2025	September 1, 2024
40 CFR 60 Subpart CC	April 11, 2025	September 1, 2024
40 CFR 60 Subpart IIII	April 11, 2025	September 1, 2024
40 CFR 63 Subpart A	April 11, 2025	September 1, 2024
40 CFR 63 Subpart ZZZZ	April 11, 2025	September 1, 2024
40 CFR 64	July 1, 2000	Not Delegated
40 CFR 68	April 11, 2025	Not Delegated
40 CFR 82 Subpart B	April 11, 2025	Not Delegated
40 CFR 82 Subpart F	April 11, 2025	Not Delegated

State and local regulations may have both an effective date that is included in the SIP and different effective date as *Local* only requirements.

State Regulations	SIP Regulation Version Effective Date	State Regulation Version Effective Date
WAC 173-400-117	December 29, 2012	November 25, 2018
WAC 173-400-171	September 16, 2018 (excludes (3)(b) that says, "or any increase in emissions of a toxic air pollutant above the acceptable source impact level for that toxic air pollutant as regulated under chapter 173-460 WAC", (3)(o), (12))	November 25, 2018
WAC 173-400-700	April 1, 2011	November 25, 2018
WAC 173-401	—	September 16, 2018
WAC 173-441	—	February 9, 2022
WAC 173-460	—	November 22, 2019 August 21, 1998*
* The 2019 version of WAC 173-460 applies statewide. In addition to the 2019 rule, SWCAA enforces the 1998 version of WAC 173-460 through local adoption.		

SWCAA Regulations	SIP Regulation Version Effective Date	SWCAA Regulation Version Effective Date
SWCAA 400-030	September 10, 2021 (excludes (21) and (130))	March 10, 2025
SWCAA 400-036	September 10, 2021	March 10, 2025
SWCAA 400-040	October 9, 2016 (excludes (1)(a), (1)(c), (1)(d), (2), and (4))	March 10, 2025
SWCAA 400-040(1)(a)	September 21, 1995	March 10, 2025
SWCAA 400-050	September 10, 2021 (excludes (3), (5), (6), and (7))	March 10, 2025
SWCAA 400-060	September 10, 2021	March 10, 2025
SWCAA 400-070	October 9, 2016 (excludes (2)(a), (3)(b), (5), (6), (7), (8)(c), (9), (10), (11), (12), (14); and (15)(c))	March 10, 2025
SWCAA 400-070(2)(a)	September 21, 1995	March 10, 2025
SWCAA 400-072	September 10, 2021 (except (5)(a)(ii)(B), (5)(d)(ii)(B), (5)(d)(iii)(A), (5)(d)(iii)(B), and all reporting requirements for TAPs)	March 10, 2025
SWCAA 400-075	—	March 10, 2025
SWCAA 400-076	—	March 10, 2025

SWCAA Regulations	SIP Regulation Version Effective Date	SWCAA Regulation Version Effective Date
SWCAA 400-081	October 9, 2016	March 10, 2025
SWCAA 400-091	September 10, 2021	March 10, 2025
SWCAA 400-100	—	March 10, 2025
SWCAA 400-103	—	March 10, 2025
SWCAA 400-105	September 10, 2021 (excludes requirements for TAPs)	March 10, 2025
SWCAA 400-106	September 10, 2021 (except (1)(d)–(1)(g) and (2))	March 10, 2025
SWCAA 400-107	September 21, 1995	March 10, 2025
SWCAA 400-109	September 10, 2021 (except TAP emissions thresholds (3)(d), (3)(e)(ii), and (4))	March 10, 2025
SWCAA 400-110	September 10, 2021 (except (1)(d))	March 10, 2025
SWCAA 400-113	September 10, 2021 (except (5))	March 10, 2025
SWCAA 400-114	September 10, 2021	March 10, 2025
SWCAA 400-115	—	March 10, 2025
SWCAA 400-116	November 9, 2003	March 10, 2025
SWCAA 400-120	—	March 10, 2025
SWCAA 400-130	October 9, 2016	March 10, 2025
SWCAA 400-131	October 9, 2016	March 10, 2025
SWCAA 400-136	September 10, 2021	March 10, 2025
SWCAA 400-141	—	March 10, 2025
SWCAA 400-151	September 10, 2021	March 10, 2025
SWCAA 400-161	March 18, 2001	March 10, 2025
SWCAA 400-171	September 10, 2021 (except (2)(a)(xii))	March 10, 2025
SWCAA 400-200	October 9, 2016	March 10, 2025
SWCAA 400-205	March 18, 2001	March 10, 2025
SWCAA 400-235	—	March 10, 2025
SWCAA 400-270	—	March 10, 2025
SWCAA 400 Appendix A	March 21, 2020	March 10, 2025
SWCAA 425	—	June 18, 2017
SWCAA 476	—	March 22, 2020

Air Discharge Permits (ADPs) listed in the table below were issued under state/local authority and a federally-approved new source review program. Therefore, the terms of these permits are federally enforceable, unless otherwise identified. There are no additional Regulatory Orders or Prevention of Significant Deterioration (PSD) permits applicable to this facility.

Regulatory Orders and Permits	SIP Approval Date	Effective Date
ADP 23-3596	—	August 14, 2023

III. EMISSION UNIT IDENTIFICATION

The following emission units or processes and control equipment have been identified at the facility. The EU Number will be used throughout the remainder of the Permit to identify the emission unit or process and any associated control equipment.

EU No.	Generating Equipment or Activity	Emission Control		CAM Applicable
EU1	Glass Furnace / Annealing Lehr	NO_X CO VOC SO_2 PM	Selective Catalytic Reduction Combustion Controls Combustion Controls Spray Dryer Low Sulfur Fuel (Nat Gas) Electrostatic Precipitator	PM
EU2	Glass Cutting Operations	VOC	Restriction on Material Type and Use	No
EU3	Cullet Return System #1	PM	Process Enclosure, Fabric Filtration	No
EU4	Cullet Return System #2	PM	Process Enclosure, Fabric Filtration	No
EU5	EP Dust Collection System #1	PM	Process Enclosure, Fabric Filtration	No
EU6	EP Dust Collection System #2	PM	Process Enclosure, Fabric Filtration	No
EU7	Emergency Generator #1	NO_X CO VOC SO_2 PM	Combustion Controls Combustion Controls Combustion Controls Ultra-low Sulfur Fuel ($\leq$ 0.0015% by wt), Combustion Controls	No
EU8	Emergency Generator #2	NO_X CO VOC SO_2 PM	Combustion Controls Combustion Controls Combustion Controls Ultra-low Sulfur Fuel ($\leq$ 0.0015% by wt), Combustion Controls	No
EU9	Misc. Burners / Space Heaters	NO_X CO SO_2 PM	Combustion Controls Combustion Controls Low Sulfur Fuel (Nat Gas) Combustion Controls	No
EU10	Hydrogen Generation System	NO_X CO SO_2 PM	Combustion Controls Combustion Controls Low Sulfur Fuel (Nat Gas) Combustion Controls	No

IV. PERMIT PROVISIONS

P1. Credible Evidence

40 CFR 60.11
40 CFR 61.12
SWCAA 400-235 (*Local*)

For the purposes of submitting compliance certifications or establishing whether a violation of any term or condition of this Permit has occurred or is occurring, nothing will preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the Permittee would have been in compliance with a specific term or condition if the appropriate performance or compliance test or procedure would have been performed.

P2. Confidentiality of Records and Information

WAC 173-401-500(5)
WAC 173-401-620(2)(e)
SWCAA 400-270 (*Local*)

The Permittee is responsible for clearly identifying information that is considered proprietary and confidential prior to submittal to SWCAA. Information submitted to the SWCAA that has not been identified as confidential at the time of submittal may not be classified as confidential at a later date. Requests for proprietary and confidential information will be released only after legal opinion by SWCAA's legal counsel, and notice to the Permittee of the intent to release or deny the release of information. [SWCAA 400-270]

In the case where the Permittee has submitted information to SWCAA under a claim of confidentiality, SWCAA may also require the source to submit a copy of such information directly to the EPA. [WAC 173-401-500(5)]

Upon request, the Permittee must also furnish to SWCAA copies of records required to be kept by the Permittee or, for information claimed to be confidential, the Permittee may furnish such records directly to the EPA along with a claim of confidentiality. SWCAA will maintain confidentiality of such information in accordance with RCW 70A.15.2510. [WAC 173-401-620(2)(e)]

P3. Insignificant Emission Unit - Permit Revision

WAC 173-401-530(6)

Any emission unit or activity that qualifies as insignificant solely on the basis of provisions in WAC 173-401-530(1)(a) must not exceed the emissions thresholds specified in WAC 173-401-530(4) until this Permit is modified pursuant to WAC 173-401-725.

P4. Standard Provisions

WAC 173-401-620(2)
SWCAA 400-103 (*Local*)

(a) *Duty to comply*. The Permittee must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of RCW 70A.15 and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application.

(b) *Need to halt or reduce activity not a defense*. It is not a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

(c) *Permit actions*. This Permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any Permit condition.

(d) *Property rights*. This Permit does not convey any property rights of any sort, or any exclusive privilege.

(e) *Duty to provide information*. The Permittee must furnish to SWCAA, within a reasonable time, any information that the SWCAA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Permit, or to determine compliance with the Permit. Upon request, the Permittee must also furnish to SWCAA copies of records required to be kept by the Permittee or, for information claimed to be confidential, the Permittee may furnish such records directly to the EPA along with a claim of confidentiality. SWCAA must maintain confidentiality of such information in accordance with RCW 70A.15.2510.

(f) *Permit fees*. The Permittee must pay fees in accordance with RCW 70A.15.2270 and SWCAA's fee schedule. Failure to pay fees in a timely fashion may subject the Permittee to civil and criminal penalties as prescribed in RCW 70A.15.3150, RCW 70A.15.3160, and SWCAA 400-103(9).

(g) *Emissions trading*. No Permit revision will be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Permit.

(h) *Severability*. If any provision of this Permit is held to be invalid, all unaffected provisions of the Permit will remain in effect and be enforceable.

(i) *Permit appeals*. This Permit or any conditions in it may be appealed only by filing an appeal with the Pollution Control Hearings Board and serving it on SWCAA within thirty days of receipt of the Permit pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under FCAA Section 505(b).

(j) *Permit continuation*. This Permit and all terms and conditions contained herein do not expire until the renewal Permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-705(2) remains in effect until the renewal Permit has been issued or denied if a timely and complete application has been submitted.

P5. Federally Enforceable Requirements — WAC 173-401-625

All terms and conditions in a Permit, including any provisions designed to limit a source's potential to emit, are enforceable by the EPA and citizens under the FCAA.

Notwithstanding the above, any terms and conditions included in this Permit that are not required under the FCAA or under any of its applicable requirements are specifically designated as "*Local*" and are not federally enforceable under the FCAA. Terms and conditions so designated are not subject to the EPA and affected states review requirements of WAC 173-401-700 through WAC 173-401-820.

P6. Permit Shield WAC 173-401-640

Compliance with the conditions of this Permit is compliance with all applicable requirements that are specifically identified in this Permit as of the date of Permit issuance. Nothing in this Permit will alter or affect the following:

(a) The provisions of section 303 of the FCAA (emergency orders), including the authority of the EPA under that section;
(b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of Permit issuance;
(c) The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA;
(d) The ability of the EPA to obtain information from a source pursuant to section 114 of the FCAA; and
(e) The ability of SWCAA to establish or revise requirements for the use of reasonably available control technology (RACT) as defined in RCW 70A.15.1030(20).

P7. Permit Expiration – Application Shield WAC 173-401-705(2) WAC 173-401-710(3)

Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the Permit will remain in effect after the Permit expires if a timely and complete Permit application has been submitted. Operation under the terms and conditions of the expired Permit will be allowed until SWCAA takes final action on the renewal application.

P8. Permit Revocation WAC 173-401-710(4)

SWCAA may revoke this Permit only upon the request of the Permittee or for cause. SWCAA will provide at least thirty days written notice to the Permittee prior to revocation of the Permit or denial of a Permit renewal application. Such notice will include an explanation of the basis for the proposed action and afford the Permittee/applicant an opportunity to meet with SWCAA prior to the authority's final decision. A revocation issued under WAC 173-401-710(4) may be issued conditionally with a future effective date and may specify that the revocation will not take effect if the Permittee satisfies the specified conditions before the effective date.

P9. Changes not Requiring Permit Revision/Off Permit Changes WAC 173-401-722 WAC 173-401-724

The Permittee may make changes described in WAC 173-401-722 and WAC 173-401-724 without revising this Permit, provided that the changes satisfy the criteria set forth in those sections, including the requirements to notify SWCAA and EPA. Changes made by the Permittee under WAC 173-401-722 may or may not qualify for a Permit shield and changes under WAC 173-401-724 do not qualify for a Permit shield.

P10. Reopening for Cause WAC 173-401-730

This Permit must be reopened and revised under any of the following circumstances:

(a) Additional applicable requirements become applicable to a source with a remaining Permit term of 3 or more years. Such a reopening must be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the Permit is due to expire, unless the original Permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j);

(b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the EPA, excess emissions offset plans will be deemed to be incorporated into the Permit;

(c) SWCAA or the EPA determines that the Permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Permit; or

(d) SWCAA or the EPA determines that the Permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue this Permit must follow the same procedures as apply to initial Permit issuance and will affect only those parts of the Permit for which cause to reopen exists. Reopening under this section must not be initiated before a notice of such intent is provided to the source by SWCAA. Such notice must be made at least 30 days in advance of the date that the Permit is to be reopened, except that SWCAA may provide a shorter time period in the case of an emergency.

P11. Unavoidable Excess Emissions SWCAA 400-107(2)

The provisions of SWCAA 400-107 do not apply to federal standards, emission limits or standards contained in a PSD permit issued solely by EPA, or any event that causes a monitored exceedance of any relevant ambient air quality standard.

Excess emissions determined by the SWCAA to be unavoidable are a violation subject to the SWCAA 400-230(3), (4) and (6), but not subject to civil penalty under SWCAA 400-230(2). In a federal enforcement action filed under 42 USC 7413 or 7604 the decision-making authority must determine what weight, if any, to assign to the SWCAA's determination that an excess emissions event does or does not qualify as unavoidable under the criteria in subsections (a) and (b) below.

(a) *Startup or shutdown.* Excess emissions due to an upset or malfunction during a startup or shutdown event must be treated as an upset or malfunction.

(b) *Upsets or malfunctions.* Excess emissions due to upsets or equipment malfunctions will be considered unavoidable provided the Permittee reports as required under of SWCAA 400-107(1) and adequately demonstrates that:

  (1) The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;

  (2) The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;

(3) The operator took immediate and appropriate corrective action in a manner consistent with safety and good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded;
(4) Repairs were made in an expeditious fashion if the emitting equipment could not be shut down during the malfunction or upset to prevent the loss of life, prevent personal in-jury or severe property damage, or to minimize overall emissions;
(5) All emission monitoring systems and pollution control systems were kept operating to the extent possible unless their shutdown was necessary to prevent loss of life, personal injury, or severe property damage;
(6) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent possible; and
(7) All practicable steps were taken to minimize the impact of the excess emissions on ambient air quality.

P12. Right to Appeal Permit/Petition the EPA **42 USC 7661d(b)(1)**

If the Administrator does not object in writing to the issuance of a Title V Permit pursuant to 42 USC 7661d(b)(1), any person may petition the EPA within 60 days after the expiration of the 45-day review period specified in 42 USC 7661d(b)(1) to take such action. A copy of such petition shall be provided to the permitting authority and the applicant by the petitioner. The petition shall be based only on objections to the Permit that were raised with reasonable specificity during the public comment period provided by the permitting agency (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). The petition shall identify all such objections. If the Permit has been issued by the permitting agency, such petition shall not postpone the effectiveness of the permit.

V. GENERAL TERMS AND CONDITIONS

G1. Asbestos

40 CFR 61 Subpart M
SWCAA 400-075 (*Local*)
SWCAA 476 (*Local*)

The Permittee must comply with the provisions of SWCAA 476 "Standards for Asbestos Control, Demolition and Renovation" when conducting any renovation, demolition, or asbestos storage activities at the facility.

G2. Chemical Accident Prevention

40 CFR 68

The Permittee must comply with the requirements of the Chemical Accident Prevention Provisions of 40 CFR 68 no later than the following dates:

(a) Three years after the date on which a regulated substance, present above the threshold quantity, is first listed under 40 CFR 68.130; or

(b) The date on which a regulated substance is first present above a threshold quantity in a process. [40 CFR 68.10]

G3. Protection of Stratospheric Ozone

40 CFR 82 Subpart B
40 CFR 82 Subpart F

The Permittee must comply with the standards for recycling and emissions reduction as provided in 40 CFR Part 82, Subparts B and F.

G4. Duty to Supplement or Correct Application

WAC 173-401-500(6)

The Permittee, upon becoming aware that relevant facts were omitted or incorrect information was submitted in a Permit application, must promptly submit such supplementary facts or corrected information. In addition, the Permittee must provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft Permit.

G5. Certification

WAC 173-401-520

All application forms, reports, and compliance certifications must be certified by a responsible official. Certification must state that, based on information and belief formed after reasonable inquiry, the statements and information contained in the submittal are true, accurate, and complete.

G6. Inspection and Entry — WAC 173-401-630(2) SWCAA 400-105(2) and (3)

The Permittee must allow inspection and entry, upon presentation of credentials and other documents as may be required by law, by SWCAA or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the Permit;
(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the Permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Permit; and
(d) Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the Permit or applicable requirements.

G7. Schedule of Compliance — WAC 173-401-630(3)

The Permittee must continue to comply with all applicable requirements with which the source is currently in compliance. The Permittee must meet on a timely basis any applicable requirements that become effective during the Permit term. The Permittee must comply with any approved schedule of compliance in accordance with WAC 173-401-510(2)(h)(iii).

G8. Permit Renewal Application — WAC 173-401-710(1) WAC 173-401-610

The Permittee must submit a complete renewal application to SWCAA no later than the date established in the Permit. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with WAC 173-401-710(1) and WAC 173-401-500. All terms and conditions of the Permit remain in effect after the Permit expires if a timely and complete renewal application has been submitted. Operation under the terms and conditions of the expired Permit will be allowed until SWCAA takes final action on the renewal application.

This Permit expires on **[*Expiration Date*]**. A renewal application is due on **[*Expiration date minus 12 months*]** and a complete application is due no later than **[*Expiration date minus 6 months*]**.

G9. Transfer of Ownership or Operational Control — WAC 173-401-720(1)(d)

An Administrative Permit Amendment is required for a change in ownership or operational control of a source where the SWCAA determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the SWCAA.

G10. Reporting of Emissions of Greenhouse Gases — WAC 173-441 (*Local*)

WAC 173-441 requires owners and operators of affected facilities to quantify and report emissions of greenhouse gases from applicable source categories listed in WAC 173-441-120. This regulation applies to any facility located in Washington State with total greenhouse gas emissions of ten thousand metric tons of carbon dioxide equivalent (CO_2e) or more per calendar year. The Permittee must prepare and submit greenhouse gas reports to Ecology for each affected facility in accordance with WAC 173-441. A copy of each report must be submitted to SWCAA.

G11. Misrepresentation and Tampering — SWCAA 400-105(5) and (6)

The Permittee must not make any false material statement, representation or certification in any form, notice, or report required under RCW 70A.15, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.

The Permittee must not render inaccurate any monitoring device or method required under RCW 70A.15, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.

G12. Emission Testing and Monitoring — SWCAA 400-106

SWCAA may conduct or require that emission testing be conducted of any "source" or emission unit within SWCAA's jurisdiction to determine compliance, evaluate control equipment performance, evaluate RACT, or quantify emissions.

The Permittee must provide the necessary platform and sampling ports for SWCAA personnel or others to perform a test of an emission unit. SWCAA must be allowed to obtain a sample from any emission unit. The Permittee must be given an opportunity to observe the sampling and to obtain a sample at the same time.

G13. Portable Sources — SWCAA 400-036, SWCAA 400-110(6)

Portable sources which locate temporarily at the site a source are allowed to operate at the temporary location without filing an ADP application provided that:

(a) The source/emissions units are registered with SWCAA;
(b) The source/emissions units have an ADP to operate as a portable source;
(c) The owner(s) or operator(s) notifies SWCAA of the intent to operate at the new location at least ten business days prior to starting the operation;
(d) The owner(s) or operator(s) supplies sufficient information including production quantities and hours of operation, to enable SWCAA to determine that the operation will comply with the emission standards for a new source, and will not cause a violation of applicable ambient air quality standards and, if in a nonattainment area, will not interfere with scheduled attainment of ambient standards; and

(e) Portable sources that do not have a valid ADP issued by SWCAA, but do have a valid approval issued by a Washington air pollution control authority after July 1, 2010, may operate within SWCAA jurisdiction without filing an ADP application pursuant to SWCAA 400-109 or obtaining an ADP pursuant to SWCAA 400-110 provided the requirements of SWCAA 400-036 are met.

G14. New Source Review **WAC 173-400-117**
WAC 173-400-720
WAC 173-460 (*Local*)
SWCAA 400-072
SWCAA 400-076 (*Local)*
SWCAA 400-109
SWCAA 400-110
SWCAA 400-820

The Permittee must submit an application and approval must be issued, or written confirmation of exempt status must be received, before commencing construction of the proposed installations, modifications, changes, or alternations. Alternatively, for sources meeting the category criteria in SWCAA 400-072, the Permittee may submit a Small Unit Notification and begin installation after SWCAA has confirmed compliance with the provisions of SWCAA 400-072 in writing. Portable sources may be exempt from this requirement if they fulfill the criteria described in Condition G13.

G15. Replacement or Substantial Alteration of Emission Control Technology at an Existing Stationary Source **SWCAA 400-114**

Prior to replacing or substantially altering emission control technology installed at an existing stationary source or emission unit, the Permittee must file an ADP application with SWCAA. Construction must not commence on a project subject to review until SWCAA issues a final ADP or other regulatory order. However, any ADP application filed under this section is deemed to be approved without conditions if SWCAA takes no action within thirty (30) days of receipt of a complete application.

G16. Process Equipment **SWCAA 400-116(1)**

Any process equipment, including features, machines, and devices constituting parts of or called for by plans, specifications, or other information submitted for approval or required as part of an approval, such as an ADP, must be maintained and operate in good working order. SWCAA reserves the right to take any and all appropriate action to maintain compliance with approval conditions, including directing the facility to cease operations of defective or malfunctioning equipment until corrective action can be completed.

G17. Pollution Control Equipment — SWCAA 400-116(2)

Any equipment that serves as air contaminant control or capture equipment must be maintained and operate in good working order at all times in accordance with good operations and maintenance practices and in accordance with SWCAA's approval conditions. SWCAA reserves the right to take any and all appropriate action to maintain compliance with approval conditions, including directing the facility to cease operations of defective or malfunctioning equipment until corrective action can be completed.

G18. Adjustment for Atmospheric Conditions — SWCAA 400-205

Varying the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant is prohibited, except as directed according to air pollution episode regulations as specified at SWCAA 400-230(5).

G19. Outdoor Burning — SWCAA 425 (*Local*)

The Permittee is prohibited from conducting outdoor burning except as allowed by SWCAA 425.

VI. OPERATING TERMS AND CONDITIONS

The following table lists federal, state, and locally enforceable requirements applicable to the Permittee. The effective date for each applicable requirement is listed in Section II, which also describes the enforceability of the term. Those specific requirements that are enforceable only by SWCAA are denoted with "*Local*". Any requirement with "Facility-wide" listed in the Emission Unit column applies universally to all emission units or activities, regardless of whether identified as an EU or an IEU. Monitoring requirements are used to provide a reasonable assurance of compliance with the applicable requirements and may or may not involve the use of a reference test method.

Req.	Requirement	Emission Unit	Monitoring
Req 1	The Permittee must not cause or permit any emission that exceeds 20% opacity for more than three minutes in any one hour. Reference Method: SWCAA Method 9 SWCAA 400-040(1)	Facility-wide	M2
Req 2	The Permittee must not cause or permit fallout of particulate matter beyond the source's property boundary in sufficient quantity to interfere unreasonably with the use and enjoyment of the property on which the fallout occurs. SWCAA 400-040(2) (*Local*)	Facility-wide	M3 M4
Req 3	The Permittee must take reasonable precautions at all times to prevent and minimize fugitive emissions from plant operations. ADP 23-3596 Condition 18 SWCAA 400-040(3)	Facility-wide	M3
Req 4	The Permittee must use recognized good practice and procedures to reduce nuisance odors to a reasonable minimum. ADP 23-3596 Condition 19 SWCAA 400-040(4) (*Local*)	Facility-wide	M3 M4
Req 5	The Permittee must not cause or permit the emission of any air contaminant if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business. SWCAA 400-040(5)	Facility-wide	M4

Req.	Requirement	Emission Unit	Monitoring
Req 6	The Permittee must not cause or permit any emission unit to emit a gas containing sulfur dioxide in excess of 1,000 ppm of sulfur dioxide on a dry basis, corrected to 7% O_2 for combustion sources, and based on an average of 60 minutes. Reference Method: 40 CFR 60 Appendix A Methods 3A, 6C SWCAA 400-040(6)	Facility-wide	M5 M16
Req 7	The Permittee must not cause or permit the installation or use of any means which conceals or masks an emission which would otherwise violate any provisions of SWCAA 400-040. SWCAA 400-040(7)	Facility-wide	M5
Req 8	The Permittee must take reasonable precautions to prevent emissions of fugitive dust and operate the source to minimize emissions. SWCAA 400-040(8)(a)	Facility-wide	M2 M3
Req 9	The Permittee must not cause or permit emissions of particulate matter from a combustion or incineration emission unit in excess of 0.1 gr/dscf of exhaust gas corrected to appropriate oxygen level. Reference Method: 40 CFR 60 Appendix A, Method 5 SWCAA 400-050(1)	Facility-wide	M2 M8 M10
Req 10	The Permittee must not cause or allow emissions of particulate matter from a general process unit in excess of 0.1 gr/dscf of exhaust gas. Reference Method: 40 CFR 60 Appendix A, Method 5 SWCAA 400-060	Facility-wide	M2 M8 M10 M13 M14 M15
Req 11	The Permittee must perform all abrasive blasting with sand inside a blasting booth, enclosure, or structure designed to capture fugitive particulate matter. Outdoor blasting must be performed with either steel shot or abrasive containing less than 1% (by mass) material that will pass through a No. 200 sieve. SWCAA 400-070(8)(a) & (b)	Facility-wide	M2 M3

Req.	Requirement	Emission Unit	Monitoring
Req 12	Each pollution control device/measure must be in use whenever the associated production equipment is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications and operated in a manner that minimizes emissions. ADP 23-3596 Condition 20	Facility-wide	M5
Req 13	Emission units identified in this Permit must be maintained and operated in total and continuous conformity with the conditions identified in this Permit. ADP 23-3596 Condition 21	Facility-wide	M5
Req 14	The Permittee must provide safe access and sampling ports for source testing of each exhaust stack after the final pollution control device. Safe access will consist of permanently constructed platforms on the stacks. The sampling ports will meet the requirements of 40 CFR, Part 60, Appendix A Method 1. Other arrangements may be acceptable if approved by SWCAA prior to installation. ADP 23-3596 Condition 32	EU1 EU3 EU4	M5
Req 15	The Permittee must maintain and operate the Glass Furnace in a manner consistent with good air pollution control practices for minimizing emissions. 40 CFR 60.11(d) SWCAA 400-115	EU1	M5
Req 16	Emissions from the Glass Furnace exhaust stack must not exceed the following in any consecutive 12-month period: Pollutant — Emission Limit NO_X — 245.00 tpy CO — 246.38 tpy VOC — 13.69 tpy SO_2 — 114.19 tpy PM_{10} (total) — 128.66 tpy Ammonia — 9.58 tpy Hydrogen Fluoride — 2.01 tpy Sulfuric acid — 6.98 tpy Arsenic — 165.6 lb/yr Beryllium — 0.03 lb/yr Cadmium — 216.4 lb/yr Formaldehyde — 159.7 lb/yr Nickel — 49.1 lb/yr ADP 23-3596 Condition 1	EU1	M6 M7 M8 M10

Req.	Requirement	Emission Unit	Monitoring
Req 17	Emissions from the Glass Furnace exhaust stack must not exceed the emission rates listed below during normal furnace operation. Limits given in terms of lb/ton_g do not apply during periods of hot hold. Pollutant — Emission Limit NO_X — 101.8 lb/hr (24-hr avg); 1.63 lb/ton_g (30-day avg) CO — 112.6 lb/hr (24-hr avg); 1.8 lb/ton_g (30-day avg) VOC — 3.1 lb/hr (1-hr avg); 0.1 lb/ton_g (1-hr avg) SO_2 — 25.0 lb/hr (24-hr avg); 0.8 lb/ton_g (30-day avg) PM_{10} (filterable) — 14.1 lb/hr (1-hr avg); 0.45 lb/ton_g (1-hr avg) PM_{10} (total) — 29.4 lb/hr (1-hr avg); 0.94 lb/ton_g (1-hr avg) ADP 23-3596 Condition 2	EU1	M6 M7 M8 M10
Req 18	Emissions from the Glass Furnace exhaust stack must not exceed the emission rate listed below during periods of SCR system maintenance. Emission rates of all other pollutants must comply with limitations for normal furnace operation. Pollutant — Emission Limit NO_X — 415.6 lb/hr (24-hr avg) ADP 23-3596 Condition 3	EU1	M7 M6
Req 19	Emissions from the Glass Furnace exhaust stack must not exceed the emission rates listed below during periods of ESP or Spray Dryer maintenance. Emission rates of all other pollutants must comply with limitations for normal furnace operation. Pollutant — Emission Limit SO_2 — 103.1 lb/hr (24-hr avg) PM_{10} (filterable) — 15.6 lb/hr (1-hr avg) ADP 23-3596 Condition 4	EU1	M6 M7 M8 M10

Req.	Requirement	Emission Unit	Monitoring
Req 20	Visible emissions from the Glass Furnace exhaust stack must not exceed the values listed below for more than 3 minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9. Operating Condition — Opacity Limit Normal operation — 10% Hot fan transition — 20% Hot fan transition is the change in load status between the three furnace hot fans. The transition period begins when a change in fan load is initiated and ends not more than 30 minutes after fan load adjustment ceases. ADP 23-3596 Condition 5	EU1	M1 M9
Req 21	The Glass Furnace must fire only natural gas as defined in 40 CFR 60.41b. ADP 23-3596 Condition 22	EU1	M6
Req 22	The Glass Furnace glass draw rate (24-hour avg) must not be greater than 1.11 times the lowest glass draw rate during the most recent emission test in which all criteria pollutants cited in Appendix A were tested. ADP 23-3596 Condition 23	EU1	M6
Req 23	The Glass Furnace must be equipped with an ESP and Spray Dryer for control of SO_2 and PM emissions. The ESP/Spray Dryer combination must be operated during normal Glass Furnace operation. ADP 23-3596 Condition 24	EU1	M6
Req 24	The Glass Furnace must be equipped with a selective catalytic reduction (SCR) system guaranteed by the manufacturer to achieve a minimum NO_X emission control efficiency of 80%. The SCR system must be certified and operated during normal Glass Furnace operation. ADP 23-3596 Condition 25	EU1	M6
Req 25	The Glass Furnace ESP, Spray Dryer, and SCR system may each be shut down for routine maintenance. Combined maintenance periods must not exceed 120 hours per year for each system. Maintenance of each system may be done independently. Process emissions may by-pass the affected control system during maintenance periods. SCR system maintenance must only occur during the period from May to October or from 6:00 AM to 7:00 PM on a daily basis. ADP 23-3596 Condition 26	EU1	M6

Req.	Requirement	Emission Unit	Monitoring
Req 26	SO_2 use in the Annealing Lehr must not exceed 0.25 lb/ton_g, averaged monthly. ADP 23-3596 Condition 27	EU1	M6 M11
Req 27	Circulation air must be drawn through the hood located between the tin bath and Annealing Lehr at all times during glass production. Air collected in the hood must be routed to the Glass Furnace combustion air header and exhausted through the associated emission control system. ADP 23-3596 Condition 28	EU1	M11
Req 28	Emissions from Glass Cutting Operations must not exceed the following in any consecutive 12-month period: Pollutant — Emission Limit VOC — 43.90 tpy ADP 23-3596 Condition 6	EU2	M12
Req 29	Lubricant used in Glass Cutting Operations must meet the specifications given in ASTM D-235 for Type 3C mineral spirits. Alternative lubricants may be used if approved in advance by SWCAA. ADP 23-3596 Condition 29	EU2	M12
Req 30	Lubricant used in Glass Cutting Operations must contain less than 1% benzene by weight. ADP 23-3596 Condition 30	EU2	M12
Req 31	All containers for VOC containing materials must be kept securely closed with a lid in place except when in active use. Open containers for storage, transfer, or disposal of VOC containing materials are prohibited. In addition, all VOC containing materials used to clean and/or flush handling equipment or distribution lines during clean up must be collected and stored in a closed container. ADP 23-3596 Condition 31	EU2	M5
Req 32	Emissions from Cullet Return Baghouse #1 must not exceed the following: Pollutant — Emission Limit PM/PM_{10} (filterable) — 1.9 lb/hr, 8.32 tpy 0.005 gr/dscf ADP 23-3596 Condition 7	EU3	M13

Req.	Requirement	Emission Unit	Monitoring
Req 33	Emissions from Cullet Return Baghouse #2 must not exceed the following: Pollutant — Emission Limit PM/PM_{10} (filterable) — 1.07 lb/hr, 4.69 tpy 0.005 gr/dscf ADP 23-3596 Condition 8	EU4	M14
Req 34	Emissions from EP Dust Baghouses #1 and #2 must not exceed the following: Pollutant — Emission Limit PM/PM_{10} (filterable) — 0.13 lb/hr, 0.56 tpy (combined) 0.005 gr/dscf ADP 23-3596 Condition 9	EU5 EU6	M15
Req 35	Visible emissions from approved dust collectors must not exceed 0% for more than 3 minutes in any 1-hour period as determined in accordance with SWCAA Method 9 (Appendix A of SWCAA 400). ADP 23-3596 Condition 10	EU3 EU4 EU5 EU6	M2
Req 36	The Permittee must install and maintain a pressure gauge capable of continuously monitoring the differential pressure across the filtration media in each approved dust collector. ADP 23-3596 Condition 33	EU4 EU5 EU6	M14 M15
Req 37	Emissions from Emergency Generator #1 must not exceed the following: Pollutant — Emission Limit NO_X — 40.6 lb/hr, 1.01 tpy CO — 4.2 lb/hr, 0.10 tpy VOC — 1.1 lb/hr, 0.03 tpy PM_{10} — 0.9 lb/hr, 0.02 tpy ADP 23-3596 Condition 11	EU7	M16
Req 38	Operation of Emergency Generator #1 for the purpose of maintenance and testing must not exceed 50 hr/yr. This limit does not apply to periods of emergency service. ADP 23-3596 Condition 34	EU7	M16

Req.	Requirement	Emission Unit	Monitoring
Req 39	Emissions from Emergency Generator #2 must not exceed the following: Pollutant — Emission Limit NO_X — 35.4 lb/hr, 0.62 tpy CO — 1.9 lb/hr, 0.03 tpy VOC — 0.7 lb/hr, 0.01 tpy PM_{10} — 0.2 lb/hr, 0.01 tpy ADP 23-3596 Condition 12	EU8	M16
Req 40	Operation of Emergency Generator #2 for the purpose of maintenance and testing must not exceed 35 hr/yr. This limit does not apply to periods of emergency service. ADP 23-3596 Condition 35	EU8	M16
Req 41	Visible emissions from diesel engine exhaust must not exceed 10% opacity for more than 3 minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9 (SWCAA 400, Appendix A). This limit does not apply during periods of cold start-up. ADP 23-3596 Condition 13	EU7 EU8	M2
Req 42	Emergency generator diesel engines must be fired on #2 diesel or better. Maximum fuel sulfur content must not exceed 0.0015% by weight. Any fuel other than #2 diesel must be approved by SWCAA in writing prior to use. ADP 23-3596 Condition 36	EU7 EU8	M16
Req 43	Emergency generator diesel engines must be equipped with a non-resettable hour meter to record hours of operation. ADP 23-3596 Condition 37 40 CFR 63.6625(f)	EU7 EU8	M5
Req 44	The Permittee must test only one emergency generator at any given time. ADP 23-3596 Condition 38	EU7 EU8	M16
Req 45	Emergency generator testing must not occur during any Glass Furnace control equipment maintenance period. ADP 23-3596 Condition 39	EU7 EU8	M16

Req.	Requirement	Emission Unit	Monitoring
Req 46	Operation of emergency engines for purposes other than those described below is prohibited. (a) Emergency engines may operate without limit in response to emergency situations. (b) Emergency engines may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. Operation for maintenance checks and readiness testing may not exceed 100 hours per calendar year. (c) Emergency engines may be operated for up to 50 hours per year in nonemergency situations, but such operation cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. Nonemergency operation is counted against the 100 hours per calendar year allowance for maintenance and readiness testing. [40 CFR 63.6640(f)]	EU7 EU8	M16
Req 47	The Permittee must minimize the time each emergency engine spends at idle and minimize each engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h), Table 2c]	EU7 EU8	M16
Req 48	Emergency engines must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. Emergency engines must be operated and maintained according to the manufacturer's emission-related written instructions or a facility specific maintenance plan that provides for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6605(b), 63.6625(e)] [40 CFR 63.6640(a), Table 6]	EU7 EU8	M16

Req.	Requirement	Emission Unit	Monitoring
Req 49	The Permittee must conduct the following maintenance for each emergency engine: (a) Change oil and filter every 500 hours of operation or annually, whichever comes first. An oil analysis program as described in 40 CFR 63.6625(i) may be utilized in lieu of the proscribed intervals. (b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. Replace, as necessary. (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first. Replace, as necessary. [40 CFR 63.6603(a), Table 2d] [40 CFR 63.6640(a)]	EU7 EU8	M16
Req 50	Combined emissions from operation of Miscellaneous Burners and Space Heaters must not exceed the following: Pollutant — Emission Limit NO_X — 1.9 lb/hr, 2.50 tpy CO — 1.6 lb/hr, 2.09 tpy PM_{10} — 0.14 lb/hr, 0.19 tpy ADP 23-3596 Condition 14	EU9	M17
Req 51	Visible emissions from Miscellaneous Burners and Space Heaters must not exceed 0% opacity for more than 3 minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9 (SWCAA 400, Appendix A). ADP 23-3596 Condition 15	EU9	M2
Req 52	Emissions from operation the Hydrogen Generation System must not exceed the following: Pollutant — Emission Limit NO_X — 0.085 lb/hr, 0.37 tpy CO — 20.0 lb/hr, 1.12 tpy PM_{10} — 0.0065 lb/hr, 0.03 tpy ADP 23-3596 Condition 16	EU10	M18
Req 53	Visible emissions from the Hydrogen Generation System must not exceed 0% opacity for more than 3 minutes in any 1-hour period as determined by a Certified Observer in accordance with SWCAA Method 9 (SWCAA 400, Appendix A). This limit does not apply during periods of cold start-up. ADP 23-3596 Condition 17	EU10	M2

Req.	Requirement	Emission Unit	Monitoring
Req 54	Exhaust gases from process equipment must be discharged vertically at the minimum height listed below for each unit. Rain caps that inhibit vertical discharge are prohibited. Emission Unit — Minimum Height Glass Furnace — 175' above ground level Cullet Return Baghouse #1 — 100' above ground level Cullet Return Baghouse #2 — 32.5' above ground level Emergency Generator #1 — 58' above ground level Emergency Generator #2 — 58' above ground level ADP 23-3596 Condition 40	EU1 EU3 EU4 EU7 EU8	M5

VII. MONITORING AND RECORDKEEPING TERMS AND CONDITIONS

The Permittee must conduct each of the monitoring and recordkeeping activities listed below. All monitoring information required by this Permit must be recorded and readily available on-site for inspection. [WAC 173-401-615(2)]

All records and supporting information required by this Permit must be kept for a minimum period of no less than five years and must be maintained in a form readily available for inspection by SWCAA representatives. [WAC 173-401-615(2)(c), ADP 23-3596 Condition 43]

Pursuant to WAC 173-401-530(2)(c), the following monitoring or recordkeeping requirements do not apply to IEUs unless specified.

M1. General Recordkeeping — WAC 173-401-615(2); ADP 23-3596 Conditions 41-42, 44

Except for data recorded by an automated system, each record required by this Permit must include, at a minimum, the date and the name of the person making the record entry. For those records required for a control device or process, if the control device or process is not operating during a specific time period, a record must be made to that effect.

The Permittee must keep the following records as applicable:

(a) Inspections and Certifications
  (1) Date and time of the inspection or certification;
  (2) Name and title of the person who conducted the inspection or certification;
  (3) Identification of the unit or activity being inspected or certified;
  (4) Operating conditions of the unit or the type of activity occurring at the time of the inspection or certification;
  (5) Compliance status of each monitored requirement as described in Sections V and VII of this Permit; and
  (6) Description of corrective action (if any) taken in response to a discovered Permit deviation, excess emission, upset condition, or malfunction, as applicable.

(b) Complaints
  (1) Date and time of complaint;
  (2) Name of the complainant;
  (3) Description of the complaint;
  (4) Date and time of follow-up inspection;
  (5) The name and title of the person who conducted the follow-up inspection; and
  (6) Description of corrective action (if any) taken in response to complaint.

(c) Sampling and Emissions Testing
  (1) Date sampling was performed;
  (2) Entity that performed the sampling;
  (3) Name and title of the person or the entity that performed the sampling or testing;
  (4) Techniques or method used to take the sample;
  (5) Operating conditions existing at the time of sampling or measurement;
  (6) Date analytical analyses (if any) were performed;
  (7) Entity that performed the analyses;

(8) Analytical techniques or methods used;
(9) Results of such analyses;
(10) Compliance status of each monitored requirement as described in Section VII of this Permit; and
(11) Description of corrective action taken in response to Permit deviations and when action was initiated.

(d) Periodic Monitoring and Emissions Records
(1) Date and time of parameter observation or emission calculation;
(2) Name of parameter observed or emission calculated;
(3) Observed parameter value or calculated emission value with appropriate units; and
(4) Periods that data was unavailable.

(e) Excess Emissions and Permit Deviations
(1) Date and time of excess emission or permit deviation occurred;
(2) Description of the excess emission or permit deviation and an identification of the affected unit, process, or activity; and
(3) Description of corrective action taken in response to a discovered permit deviation, excess emission, upset condition, or malfunction, as applicable.

(f) Maintenance Activities
(1) Date and time of the maintenance activity;
(2) Name of the person/company who performed the maintenance;
(3) Identification of the unit or activity being maintained; and
(4) Description of the maintenance being conducted.

(g) Changes at Source
(1) Date changes were made to the source that resulted in emissions of a regulated air pollutant but not otherwise regulated under the Permit;
(2) Description of the changes made to the source; and
(3) Quantity of emissions resulting from the changes.

M2. Visible Emissions Monitoring WAC 173-401-615(1)

On a monthly basis, the Permittee must perform a brief qualitative observation of affected emission units during daylight hours for the purpose of identifying potential visible emissions violations. Based upon the qualitative observation, the Permittee must take one or more of the following actions:

(a) If no visible emissions are observed, the Permittee must make a record of the observation, and no further action is necessary.

(b) If visible emissions are observed, the Permittee must identify the source of the emissions and confirm whether or not the pertinent equipment is experiencing a malfunction and that all relevant air pollution control equipment is operating properly. The Permittee must take corrective action to resolve the problem within 24 hours of initial discovery and notify SWCAA regarding its progress in resolving the problem.

(c) Subsequent to taking corrective action, the Permittee must perform a second qualitative observation of affected emission units. If no visible emissions are observed, then no further action is necessary. If visible emissions are still observed, the Permittee must demonstrate compliance with applicable visible emission limits by conducting a visible emissions evaluation in accordance with SWCAA Method 9 within 72 hours of initial discovery. For visible emissions in compliance with applicable visible emission limits, no further action is necessary.

If observed visible emissions are demonstrated to be out of compliance with applicable visible emissions limits, the Permittee must report an excess emission as described in Section R1 and make a record of the event. Additional adjustments, repairs, and/or maintenance must be performed as soon as practical to reduce the visible emissions to a level at or below the applicable opacity limit.

Implementation of corrective action does not shield the Permittee from enforcement action by SWCAA or from the obligation of reporting permit deviations as specified in WAC 173-401-615(3).

M3. Fugitive Emissions and Fallout Monitoring **WAC 173-401-615(1)**

On a monthly basis, or in response to a complaint, the Permittee must perform an inspection of affected emission units during daylight hours for the purpose of identifying fugitive emissions, odors, fallout, and potential violations of applicable particulate matter emission limits. Based upon results of the inspection, the Permittee must take one or more of the following actions:

(a) If no visible emissions, odor, or fallout are observed, affected emission units are assumed to be in compliance with applicable emission limits. The Permittee must make a record of the observation, and no further action is necessary; and

(b) If visible emissions, odor, or fallout are observed during an inspection, the Permittee must verify the emission unit or process that is the source of emissions and any associated air pollution control equipment are operating properly. If the equipment is not operating properly, the Permittee must resolve the problem no later than 24 hours after initial discovery or notify SWCAA by the next business day of the progress made in resolving the problem. Subsequent to resolving the problem, a second inspection must be made. If visible emissions, odor, or fallout are still observed, the Permittee must continue to make adjustments and/or repairs until such time as the affected emission unit is demonstrated to be in compliance. Reasonable precautions and good work practices must be employed to minimize emissions for the duration of the event.

Implementation of corrective action does not relieve the Permittee from the obligation of reporting permit deviations as specified in WAC 173-401-615(3).

M4. Complaint Log **WAC 173-401-615(1)**
ADP 23-3596 Condition 41

The Permittee must record, and maintain record of, any air quality related complaints received by either the Permittee or SWCAA. All complaints must be investigated no later than one work day after the Permittee has been notified. The Permittee must determine the validity of each complaint and the cause of any emissions that may have prompted the complaint, and initiate appropriate corrective action in response to the complaint. Within 24 hours of investigation, the Permittee must resolve the subject of the complaint or notify SWCAA by the next working day of progress made in resolving the complaint.

Complaint records must include:
(a) The date and time of the complaint;
(b) The name of the complainant (if provided);
(c) The nature of the complaint;
(d) The date and time of the follow-up inspection; and
(e) Any corrective action taken in response to complaints and when such action was initiated.

Implementation of corrective action does not relieve the Permittee from the obligation of reporting permit deviations as specified in WAC 173-401-615(3).

M5. Compliance Certification **WAC 173-401-615(1)**

The Permittee must certify the following in each quarterly report:
(a) Installed equipment did not conceal or mask any emissions which are otherwise in violation of general standards;
(b) Each pollution control device/measure was in use when associated production equipment is in operation;
(c) Emission units identified in this Permit were maintained and operated in total and continuous conformity with the conditions identified in this Permit;
(d) Safe access and sampling ports were provided for source testing located after the final control device of each affected exhaust stack;
(e) The Glass Furnace was maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions;
(f) All containers for VOC containing materials were kept securely closed when not in active use and all VOC containing materials used to clean/flush equipment were collected and stored in a closed container;
(g) Each emergency diesel engine is equipped with a non-resettable hour meter to record operation; and
(h) Exhaust gases from the units cited in Req 54 were discharged vertically at, or above, the minimum specified height.

M6. Glass Furnace Operations Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Condition 45

The Permittee must monitor and record the following Glass Furnace operational parameters/events:
(a) Hours of operation;
(b) Hourly glass draw (tons);
(c) Hourly fuel consumption (MMBtu);
(d) Hourly exhaust stack flowrate (scfm);
(e) Excess emissions, deviations from permit conditions, CAM excursions, and upset conditions;
(f) Date and time of each hot fan transition;
(g) Date and time of each startup, shutdown and hot hold period;
(h) Glass Furnace maintenance and repair activities;
(i) Ammonia concentration in each aqueous ammonia shipment;
(j) Date and duration of each Spray Dryer/ESP maintenance event; and
(k) Date and duration of each SCR system maintenance event.

Each record must include the date on which the data was recorded. The Permittee must provide a copy of records for any time period within the last 5 years to SWCAA within 10 working days of such a request.

M7. Glass Furnace NO_X / CO / SO_2 CEMS **WAC 173-401-615(1)**
ADP 23-3596 Conditions 45, 53
ADP 23-3596 Appendix B

The Permittee must install and maintain a continuous emission monitoring system (CEMS) to measure the emission rate of NO_X, CO and SO_2 from the Glass Furnace exhaust stack. Each CEMS must be maintained and certified in accordance with Appendix B of this Permit. Each CEMS must be in use during Glass Furnace operation.

Hourly emission rates must be calculated based on monitored emission concentration and exhaust flowrate. Hourly emission averages must be based on discrete clock hours (block average). 24-hr average emission concentrations must be defined as the average emission concentration during each of the most recent 24 operating hours excluding startup/shutdown periods. Production basis emission rates must be determined by dividing the mass of monitored emissions by the monitored weight of glass draw.

The Permittee must record the following information:
(a) Hourly emission rate of NO_X, CO, and SO_2 (lbs);
(b) Emission rate of NO_X, CO, and SO_2 on a production basis (lb/ton_g) for each 24-hour period; and
(c) CEMS calibration and audit results.

M8. Glass Furnace Emission Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Conditions 45, 52
ADP 23-3596 Appendix A

The Glass Furnace must be emission tested as follows:

Constituent	Test Schedule
PM/PM_{10} (*total*)	Periodic testing conducted at least once every 12 months
VOC	Periodic testing conducted at least once every 36 months
Sulfuric Acid	Initial test only
Total Fluoride	Initial test only

All testing must be conducted in accordance with the protocol found in Appendix A of this Permit. Emission test results must be reported in units that correspond to applicable emission limitations contained in this Permit.

Emissions of PM/PM_{10}, VOC, total fluoride, and sulfuric acid must be calculated from recorded glass draw and the most recent emission test data. Emissions of PM/PM_{10} during ESP maintenance periods must be calculated from recorded glass draw and approved emission factors for uncontrolled emissions.

M9. Glass Furnace Opacity Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Conditions 45, 54

On a monthly basis, the Permittee must monitor and record visible emissions from the exhaust stack of the Glass Furnace in accordance with SWCAA Method 9. Visible emissions data must be collected for a minimum of 20 minutes. If any individual opacity reading is in excess of applicable limits, visible emissions data must be collected for an additional 20 minutes. This must be repeated up to a maximum of 60 minutes. A continuous monitoring method may be used in lieu of Method 9 observations.

If observed visible emissions are demonstrated to be out of compliance with applicable visible emissions limits, the Permittee must report an excess emission as described in condition R1 and make a record of the event. Additional adjustments, repairs, and/or maintenance must be performed as soon as practical to reduce the visible emissions to a level at or below the applicable opacity limit. Implementation of corrective action does not shield the Permittee from enforcement action by SWCAA or from the obligation of reporting permit deviations as specified in WAC 173-401-615(3).

M10. Glass Furnace Filterable PM Compliance Assurance Monitoring **40 CFR 64.6(c), 64.7(a), 64.7(c)**
WAC 173-401-615(1)

The Permittee must implement a compliance assurance monitoring (CAM) plan for filterable PM emissions from the glass furnace consistent with the requirements of 40 CFR 64.

(a) Monitored Parameters. The Permittee must continuously monitor primary voltage and current for each field of the glass furnace ESP. Hourly average values for each parameter must be derived from a minimum of four data values evenly spaced over each operating hour. Monitored hourly average values for primary voltage and primary current must be used to calculate total ESP field power for the corresponding hour. The Permittee must record total ESP field power for each hour of glass furnace operation.

(b) Monitoring Exemptions. The Permittee is temporarily exempted from the monitoring requirements of this section when the associated monitoring system is inoperable either due to an unavoidable breakdown or malfunction, or due to a routine scheduled repair or calibration check. In determining whether a monitoring system malfunction or breakdown was unavoidable, the following criteria must be considered:
   i) Whether the malfunction was caused by poor or inadequate operation, maintenance, or any other reasonably preventable condition;
   ii) Whether the malfunction was of a recurring pattern indicative of inadequate operation or maintenance; and
   iii) Whether the Permittee took appropriate action as expeditiously as practicable to correct the malfunction.

(c) Minimum Data Recovery. For any parameter requiring hourly or more frequent monitoring under this section, the Permittee must recover valid monitoring data for at least 90% of the time the glass furnace is required to be monitored. Data recorded during monitoring system malfunctions, associated repairs, and required quality assurance or control activities must not be used for purposes of assessing the operation of the control device being monitored.

(d) Compliance Assurance. Compliance with applicable filterable PM emission limits is considered to be assured during all periods in which total ESP field power is equal to, or greater than, 20 kW.

(e) Excursions. Any period during which total ESP field power falls below 20 kW and cannot be brought back into conformance within 6-hours from the time the out-of-range condition was first noted or recorded shall constitute an excursion. Each such period must be reported as a deviation in accordance with Section R1 of this Permit. Startup or shutdown events and periods of ESP maintenance are not considered to be excursions. Operation of the ESP with only 3 collection fields shall not be considered an excursion provided total ESP field power does not fall below 20 kW.

M11. Annealing Lehr Emission Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Condition 46

The Permittee must monitor and record the following information for the Annealing Lehr:

(a) Beginning and ending weights of each SO_2 gas cylinder (lbs);
(b) Monthly consumption of SO_2 in the Annealing Lehr (lbs);
(c) Monthly consumption of SO_2 in the Annealing Lehr on a production basis (lb/ton_g); and
(d) Date and duration of each instance when the air circulation hood was not exhausted to the Glass Furnace combustion air header.

M12. Glass Cutting Emission Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Condition 47

The Permittee must monitor and record the following information for glass cutting operations:

(a) Type and ASTM classification of each glass cutting lubricant used;
(b) Chemical composition of each type of glass cutting lubricant used;
(c) Benzene content of each type of glass cutting lubricant used; and
(d) Monthly consumption of each type of glass cutting lubricant (lbs).

Emissions of VOC must be calculated from recorded material consumption using material balance methodology.

M13. Cullet Return Baghouse #1 Emission Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Conditions 48, 55
ADP 23-3596 Appendix C

The Permittee must install and maintain a pressure gauge capable of continuously monitoring the differential pressure across the filtration media in the Cullet Return Baghouse #1.

The Permittee must monitor and record the following information for Cullet Return Baghouse #1:

(a) Monthly hours of operation;
(b) Pressure drop across filtration media recorded weekly; and
(c) Each occurrence of maintenance and repair activity.

Cullet Return Baghouse #1 must be emission tested at least once every 36 months, no later than the end of March. Emission testing conducted more than three months prior to a scheduled due date will

not satisfy the periodic source emission testing requirement unless prior written approval is obtained from SWCAA. All emission testing must be conducted in accordance with the protocol found in Appendix C of this Permit. Emission test results must be reported in units that correspond to applicable emission limitations contained in this Permit.

PM/PM_{10} emissions must be calculated from recorded hours of operation, exhaust flowrate, and the most recently tested emission concentration.

M14. Cullet Return Baghouse #2 Emission Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Conditions 33, 48, 56
ADP 23-3596 Appendix D

The Permittee must install and maintain a pressure gauge capable of continuously monitoring the differential pressure across the filtration media in the Cullet Return Baghouse #2.

The Permittee must monitor and record the following information for Cullet Return Baghouse #2:
(a) Monthly hours of operation;
(b) Pressure drop across filtration media recorded weekly; and
(c) Each occurrence of maintenance and repair activity.

Cullet Return Baghouse #2 must be emission tested at least once every 60 months, no later than the end of March. Emission testing conducted more than three months prior to a scheduled due date will not satisfy the periodic source emission testing requirement unless prior written approval is obtained from SWCAA. All emission testing must be conducted in accordance with the protocol found in Appendix D of this Permit. Emission test results must be reported in units that correspond to applicable emission limitations contained in this Permit.

PM/PM_{10} emissions must be calculated from recorded hours of operation, exhaust flowrate, and the most recently tested emission concentration.

M15. EP Dust Baghouse Emission Monitoring **WAC 173-401-615(1)**
ADP 23-3596 Conditions 33, 48, 57
ADP 23-3596 Appendix E

The Permittee must install and maintain a pressure gauge capable of continuously monitoring the differential pressure across the filtration media in each EP Dust Baghouse.

The Permittee must monitor and record the following information for each EP Dust Baghouse:
(a) Monthly hours of operation;
(b) Pressure drop across filtration media recorded weekly; and
(c) Each occurrence of maintenance and repair activity.

If SWCAA issues a Notice of Violation for excess visible emissions from an EP Dust baghouse, the affected baghouse may subsequently be required to perform an emission test and/or periodic emission testing. If such emission testing is required, the affected baghouse must be emission tested no later than 60 days following the source's receipt of the Notice of Violation. Under this provision, routine periodic emission testing of the affected baghouse is limited to a maximum frequency of once every

60 months. All emission testing must be conducted in accordance with the protocol found in Appendix E of this Permit. Emission test results must be reported in units that correspond to applicable emission limitations contained in this Permit.

PM/PM_{10} emissions must be calculated from recorded hours of operation, exhaust flowrate, and the maximum allowable emission concentration.

M16. Emergency Generator Emission Monitoring **WAC 173-401-615(1)**
40 CFR 63.6655 & Table 6
ADP 23-3596 Condition 49

The Permittee must monitor and record the following information for each Emergency Generator engine:

(a) Date and duration of nonemergency operation;
(b) Date and duration of emergency operation;
(c) Fuel sulfur content for each fuel shipment; and
(d) Each occurrence of maintenance and repair activity.

Emissions from the Emergency Generator must be calculated from recorded hours of operation and approved emission factors.

M17. Misc. Burners/Space Heaters Emission Monitoring **ADP 23-3596 Condition 50**

The Permittee must monitor and record the following information for the Misc. Burners and Space Heaters:

(a) Combined monthly fuel consumption (MMBtu); and
(b) Each maintenance and repair activity.

Emissions from the Misc. Burners and Space Heaters must be calculated from recorded fuel consumption and approved emission factors.

M18. Hydrogen Generation Station Emission Monitoring **ADP 23-3596 Condition 51**

The Permittee must monitor and record the following information for the Hydrogen Generation System:

(a) Monthly hours of total operation; and
(b) Monthly hours of operation in startup/shutdown/tuning mode.

Emissions from the Hydrogen Generation System must be calculated from recorded hours of operation and approved emission factors.

M19. Greenhouse Gas Emission Monitoring WAC 173-441-050

The Permittee must monitor greenhouse gas emissions by maintaining a record of applicable data elements specified in WAC 173-441-050(6)(a)-(h). Records must be kept in a form suitable for expeditious inspection and review. Upon request, records required under this section must be made available to Ecology. Records may be retained offsite if the records are readily available for expeditious inspection and review. For records that are electronically generated or maintained, the equipment or software necessary to read the records must be made available, or, if requested by Ecology, electronic records must be converted to paper documents.

Affected monitoring systems must meet the applicable flow meter calibration and accuracy requirements of WAC 173-441-050(8). The accuracy specifications in that subsection do not apply where the use of company records (*defined in WAC 173-441-020(3)*) or the use of "best available information" is specified in an applicable subsection of WAC 173-441 to quantify fuel usage and/or other parameters.

Greenhouse gas emissions must be calculated using the methodologies specified in relevant sections of WAC 173-441. The same calculation methodology must be used throughout a reporting period unless a written explanation of why a change in methodology was required is provided.

VIII. REPORTING TERMS AND CONDITIONS

All required reports must be certified by a responsible official consistent with WAC 173-401-520. Where an applicable requirement requires reporting more frequently than once every six months, the responsible official's certification need only be submitted once every six months, covering all required reporting since the date of the last certification. Pursuant to WAC 173-401-530(2)(c), reporting requirements are not applicable to IEUs unless specified.

Where a reporting schedule is specified (e.g., quarterly, semiannual, or annual), compliance with the reporting frequency is met when reports are submitted more frequently than required.

Each report that is required to be submitted to the EPA must also be submitted to SWCAA by the deadline specified in the applicable requirement for that report. For submissions made electronically to an EPA database, the copy to SWCAA must be in a format approved by SWCAA. [WAC 173-401-615(3)]

All reports required by this Permit, and the supporting information for those reports, must be kept for a minimum period of no less than five years from the date of the report and must be maintained in a form readily available for inspection by SWCAA representatives. [WAC 173-401-615(2)(c)]

Addresses of regulatory agencies are the following, unless otherwise instructed:

Southwest Clean Air Agency
5101 NE 82nd Ave, Suite 102
Vancouver, WA 98662

Clean Air Act Compliance Manager
US EPA Region 10, Mail Stop: OCE-101
1200 Sixth Avenue, Suite 155
Seattle, WA 98101

R1. Deviations from Permit Conditions **40 CFR 60.7(b)**
40 CFR 64.9(a)(2)(i)
WAC 173-401-615(3)
SWCAA 400-107
ADP 23-3596 Condition 60

Deviations from Permit requirements must be reported no later than thirty days after the end of the month during which the deviation is discovered. Deviations which represent a potential threat to human health or safety must be reported as soon as possible but no later than twelve hours after the deviation is discovered. Reports of deviations from Permit requirements must include:

(a) Whether or not the deviation is or was due to upset conditions;
(b) The probable cause of the deviation; and
(c) The corrective action taken, and when the corrective action was initiated.

Excess emissions must be reported to SWCAA as soon as possible but no later than 48 hours after discovery in accordance with SWCAA 400-107. Excess emission reports must contain the following information:

(a) Identification of the emission unit(s) involved;
(b) A brief description of the event including identification of known causes;
(c) Date, time and duration of the event;
(d) For exceedances of non-opacity emission limitations, an estimate of the quantity of excess emissions;
(e) Corrective action taken in response to the event; and
(f) Preventive measures taken or planned to minimize future recurrence.

All reports must be submitted in writing (e.g., e-mail, facsimile, or letter).

R2. Complaint Reports — ADP 23-3596 Condition 58

All air quality related complaints received by the Permittee must be reported to SWCAA within three business days of receipt. Complaint reports must include the following information:

(a) Date and time of the complaint;
(b) Name of the complainant (if provided);
(c) Nature of the complaint; and
(d) Description of corrective action taken in response to complaint (if any).

R3. Glass Furnace Control Equipment By-pass — ADP 23-3596 Condition 62

The Permittee must provide written notification to SWCAA at least 10 calendar days prior to by-passing the Glass Furnace SCR system or ESP/Spray Dryer for purposes of routine maintenance. Notification must, at a minimum, include the following information:

(a) Date maintenance is to commence;
(b) Schedule of planned maintenance activity; and
(c) List of measures employed to minimize emissions.

R4. New TAP Emissions — ADP 23-3596 Condition 61

The Permittee must notify SWCAA at least 7 calendar days in advance of using any new material which results in the emission of toxic or hazardous air pollutants not previously emitted. In response to the notification, SWCAA may require that a written report be submitted with the following:

(a) A description of the proposed change(s) in materials with an SDS for each new material;
(b) The date the change(s) is (are) to be made;
(c) The change(s) in emissions of VOCs, HAPs, and TAPs occurring as a result of the change; and
(d) A summary of any applicable requirement(s) that would apply as a result of the change(s).

If the proposed emission rate of a new TAP exceeds the applicable SQER and/or other emission limits established by this Permit or otherwise circumvents an applicable requirement, New Source Review may be required prior to making the proposed change.

R5. Emission Test Reports ADP 23-3596 Condition 63

Emission test results must be reported to SWCAA in writing within 45 days of test completion.

R6. Quarterly Reports ADP 23-3596 Condition 65

The Permittee must submit quarterly reports to SWCAA no later than 30 days after the end of each quarter of the calendar year. Each report must be certified by a responsible official consistent with WAC 173-401-520.

Each report must contain, at a minimum, the following information:

(a) Certification by the responsible official of each element cited in monitoring condition M5;
(b) Records of all required monitoring and inspections as described in monitoring conditions M2 thru M4 of this Permit. A copy of the relevant opacity certification(s) must be submitted with the report for all EPA Method 9 and/or SWCAA Method 9 monitoring conducted during the reporting period;
(c) A summary of all deviations and/or excursions that occurred during the reporting period;
(d) A summary of all excess emission events that occurred during the reporting period;
(e) Hours of operation for each emission unit;
(f) Hourly Glass Furnace fuel consumption (MMBtu);
(g) Hourly Glass Furnace total ESP field power;
(h) Hourly Glass Furnace glass draw (tons);
(i) Hourly emissions data from each CEMS (lbs, lb/ton_g);
(j) Glass Furnace visible emission observations/data;
(k) Results of all CEMS calibrations and audits conducted during the reporting period;
(l) Identification of any periods during which required CEMS or CAM data is not available and an explanation of why the data is missing;
(m) Monthly SO_2 consumption in the Annealing Lehr (lbs, lb/ton_g);
(n) Monthly consumption of each type of glass cutting lubricant (lbs);
(o) Monthly hours of nonemergency engine operation;
(p) Monthly hours of emergency engine operation;
(q) Monthly fuel consumption by miscellaneous burners and space heaters (MMBtu);
(r) Monthly hours of Hydrogen Generation System operation;
(s) Monthly hours of Hydrogen Generation System startup/shutdown/tuning operation; and
(t) A summary of air emissions from each emission unit in terms consistent with applicable emission limits.

R7. Semi-Annual Reports **40 CFR 63.6650(f)**
WAC 173-401-615(3)(a)

The Permittee must submit to SWCAA by September 15th and March 15th, for the six-month periods January through June and July through December respectively, a report on the status of all monitoring requirements. All instances of deviation from permit requirements during the reporting period must be clearly identified. If no deviations occurred, then a statement to that effect must be submitted.

The semi-annual report must contain a certification of all reports previously submitted during the semi-annual period that have not already been certified. The certification must be consistent with WAC 173-401-520.

Separate semi-annual reports are not necessary if the Permittee elects to provide the above information and certification with each quarterly report.

R8. Annual Compliance Certification **WAC 173-401-630(5)**

The Permittee must submit to SWCAA and EPA a certification of compliance with all terms and conditions of this Permit, not including the items listed in Section IV ("Permit Provisions"), in accordance with WAC 173-401-630(5)(d). The Permittee must submit the following information by March 15th for the previous calendar year:

(a) Identification of each term or condition of the Permit that is the basis of the certification;
(b) Statement of compliance status;
(c) Whether compliance was continuous or intermittent;
(d) Method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with WAC 173-401-615;
(e) Such other facts as SWCAA may require to determine the compliance status of the source; and
(f) Such additional requirements as may be specified pursuant to Sections 114(a)(3) and 504(b) of the FCAA.

R9. Emission Inventory Reports **SWCAA 400-105**
ADP 23-3596 Condition 59

The Permittee must submit an inventory of annual emissions for each calendar year to SWCAA by March 15th of the following year in accordance with SWCAA 400-105 unless an alternate date is approved by SWCAA. The inventory must include stack and fugitive emissions of NO_X, SO_2, CO, VOC, PM, PM_{10}, $PM_{2.5}$, HAPs, and TAPs as defined in WAC 173-460. TAP emissions must be calculated consistent with the emission factors and methodology presented in the TSD for ADP 23-3596.

Each inventory report must be certified by a responsible official consistent with WAC 173-520.

R10. Greenhouse Gas Emission Reports WAC 173-441-050

The Permittee must prepare and submit an annual report of greenhouse gas (GHG) emissions to Ecology and SWCAA by March 31st of the following calendar year. Each annual report must contain the information specified in WAC 173-441-050(3). The Permittee must submit a revised annual report within 45 days of discovering that a previously submitted annual report contains one or more substantive errors.

The report and certificate or representation must be submitted in accordance with the requirements of WAC 173-441-050 and 173-441-060 and in a format specified by Ecology. Each annual report and any other submission under Chapter 173-441 WAC must be certified, signed, and submitted by the designated representative or any alternate designated representative.

Each submission under Chapter 173-441 WAC must include the following certification statement signed by the designated representative or any alternate designated representative:

> "*I am authorized to make this submission on behalf of the owners and operators of the facility or supplier, as applicable, for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.*"

IX. NON-APPLICABLE REQUIREMENTS

This section lists federal, state, and/or local requirements that might reasonably apply to the Permittee, but are deemed non-applicable after review by SWCAA. In accordance with WAC 173-401-640, the Permittee is provided with a Permit shield for not complying with the requirements described below where they have been identified to be non-applicable to specific emission units. Certain subsections describe requirements that may apply to the Permittee but are not "applicable requirements" for the purposes of the Air Operating Permit program. Those requirements will not be included in the Air Operating Permit.

N1. Prevention of Significant Deterioration of Air Quality — 40 CFR 52.21(i)

The Prevention of Significant Deterioration (PSD) program applies to all major stationary sources and major modifications with respect to each regulated pollutant. Prior to issuance of ADP 20-3409, the Winlock facility was classified as a major stationary source and operated under a PSD permit (PSD 03-03). Subsequent to issuance of ADP 20-3409, allowable emissions or criteria pollutants from the Winlock facility are limited to levels lower than applicable major stationary source thresholds. The facility no longer qualifies as a major stationary source, so the PSD program is not applicable unless the status of the facility changes.

N2. Standards of Performance for Stationary Compression Ignition Internal Combustion Engines — 40 CFR 60, Subpart IIII SWCAA 400-115

Subpart IIII establishes performance standards for applicable to operators of stationary compression ignition (CI) internal combustion engines (ICE) that are manufactured after April 1, 2006 (except fire pump engines), manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006, or modified/reconstructed after July 11, 2005.

This facility has two compression ignition internal combustion engine emission units (Emergency Generator 1, Emergency Generator 2). This regulation is applicable to the power unit for Emergency Generator #2 but is not applicable to the power unit for Emergency Generator #1 because that unit was manufactured prior to April 1, 2006.

N3. National Emission Standards for Hazardous Air Pollutants for Inorganic Arsenic Emissions from Glass Manufacturing Plants — 40 CFR 61, Subpart N SWCAA 400-075

Subpart N establishes performance standards for each glass melting furnace that uses commercial arsenic as a raw material. The glass melting furnace at this facility does not use commercial arsenic as a raw material. Therefore, this regulation is not applicable.

N4. National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers **40 CFR 63 Subpart Q SWCAA 400-075**

Subpart Q establishes performance standards for all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals on or after September 8, 1994. The cooling towers at this facility do not use chromium-based water treatment chemicals, so this requirement is not applicable.

N5. National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines **40 CFR 63 Subpart ZZZZ**

Portions of 40 CFR 63.6650 infer that semi-annual compliance reports are required for existing emergency CI engines. However, there are no reporting requirements listed as being applicable to these units in Table 7 (which summarized the requirements of the section), and it seems inappropriate to require emergency engines subject to no numeric emission or operating limit to submit semi-annual compliance status reports. Furthermore, EPA's response to comments on the proposed rule indicates that this was not the intent of the rule. In a memorandum dated February 17, 2010 from Melanie King to EPA Docket EPA-HQ-OAR-2008-0708, EPA wrote:

> *"EPA agrees with the commenter that semi-annual compliance reporting, and other types of reporting required under the General Provisions of 40 CFR part 63 are not appropriate for area sources that are not subject to numerical emission standards. EPA believes that recording information and maintaining records will provide EPA with assurance that facilities are meeting the work/management practices and other requirements applicable to their existing stationary engines. Further, EPA believes it is appropriate [to] extend the same approach to any sources that are not subject to numerical emission standards, including existing stationary CI engines less than 100 HP and existing stationary emergency CI engines…"*

Therefore, emergency engines at this facility are not required to submit semi-annual compliance reports.

N6. National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources **40 CFR 63 Subpart SSSSSS SWCAA 400-075**

Subpart SSSSSS establishes performance standards for all new and existing glass manufacturing facilities that are an area source of HAP and meet the criteria listed in 40 CFR 63.11448. This facility is a glass manufacturing facility and an area source of HAP emissions. The glass production process at this facility does not use any "glass manufacturing metal HAP" in its batch formulation so the applicability criterion contained in 40 CFR 63.11448(c) is not met. Therefore, this regulation is not applicable.

N7. Compliance Assurance Monitoring 60 CFR 64

40 CFR 64 establishes criteria that define what monitoring should be conducted by a source owner or operator to provide a reasonable assurance there is compliance with emission limits and standards in order to certify compliance under the Title V operating permit program. Pursuant to 40 CFR 64.2, the Compliance Assurance Monitoring (CAM) rule applies to Pollutant Specific Emission Units (PSEU) at major sources that are required to obtain a Part 70 or 71 permit and meet all of the following criteria:

(1) The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate);
(2) The PSEU uses a control device to achieve compliance with the emission limit or standard; and
(3) The PSEU has potential pre-control device emissions of the applicable regulated pollutant equal to or above the major source threshold.

Glass Furnace emissions of selected pollutants (NO_X, SO_2, and filterable PM) are subject to this regulation based on estimates of uncontrolled potential to emit and use of a control device. The glass furnace is equipped with a continuous compliance determination method for NO_X and SO_2 (CEMS) so these pollutants are exempt from 40 CFR 64 requirements pursuant to 40 CFR 64.2(b)(1)(iii) and 64.2(b)(1)(vi). The glass furnace is not equipped with a continuous compliance determination method for filterable PM emissions so that pollutant is subject to 40 CFR 64 requirements.

Estimated uncontrolled potential to emit from all other emission units at this facility is not large enough to be subject to this regulation.

N8. Greenhouse Gas Emission Reports 40 CFR 98

40 CFR 98 establishes mandatory reporting requirements for greenhouse gas (GHG) emissions from selected stationary source categories in the United States. Pursuant to 40 CFR 98.3, facilities subject to this regulation must submit GHG emissions reports to the Administrator, as specified in paragraphs (a) through (g) of that section, for calendar year 2010 and each subsequent calendar year. According to EPA guidance as published in the Federal Register (56288 FR 74:209, October 30, 2009), the requirements imposed by this rule are not applicable requirements under the Title V program. Therefore, the requirements of 40 CFR 98 have not been included in this Permit.

N9. Clean Air Rule WAC 173-442

Chapter 173-442 WAC establishes GHG emissions standards starting in 2017 for certain stationary sources, petroleum product producers/importers, and natural gas distributors. The provisions of WAC 173-442 were preempted by passage of the Climate Commitment Act, and Ecology was directed to repeal the regulation [RCW 70A.65.200(9)(c)]. Therefore, WAC 173-442 is considered non-applicable.

N10. Climate Commitment Act Program Rule **WAC 173-446**

Chapter 173-446 WAC implements the provisions of the GHG emissions cap and invest program created by RCW 70A.65.060 through 70A.65.210. The provisions of the cap and invest program implemented by this chapter establish a declining cap on GHG emissions from covered entities consistent with the limits established in RCW 70A.45.020 and a program to track, verify, and enforce compliance with the cap through the use of compliance instruments. The statutory authority for Chapter 173-446 WAC is RCW 70A.65.220. Therefore, the requirements of Chapter 173-446 WAC are not appropriate for inclusion in an AOP.

N11. Source Registration Program **SWCAA 400-100**

SWCAA 400-100 implements SWCAA's source registration program. Pursuant to SWCAA 400-100(1)(b) sources subject to the Air Operating Permit program (WAC 173-401) are exempt from the registration program. Therefore, the registration program is not applicable to the facility.

N12. Requirements for Sources in a Maintenance Plan Area **SWCAA 400-111**

The Permittee is not located in a maintenance plan area for any criteria pollutant. Therefore, this regulation is not applicable to the facility.

N13. Requirements for New Sources in Nonattainment Areas **SWCAA 400-112**

The Permittee is not located in a nonattainment area for any criteria pollutant. Therefore, this regulation is not applicable to the facility.

N14. Bubble Rules **SWCAA 400-120**

The Permittee has not requested an emission bubble for any regulated pollutant. Therefore, this regulation is not applicable to the facility.

N15. Emission Reduction Credits **SWCAA 400-130**
SWCAA 400-131
SWCAA 400-136

The cited rule sections govern the creation, maintenance, and use of emission reduction credits within the Agency's jurisdiction. The Permittee has not requested to create or use any emission reduction credits (ERCs). Therefore, this regulation is not applicable to the facility.

Appendix A
Glass Furnace – Emission Testing Requirements

1. Introduction:

The purpose of this testing is to quantify emissions of PM, VOC, and TAPs from the Glass Furnace exhaust stack and to demonstrate compliance with applicable requirements.

2. Testing Requirements:

a. **Test Schedule.** Emission testing must be conducted according to the schedule below. Emission testing conducted more than three months prior to a scheduled due date will not satisfy the periodic source emission testing requirement unless prior written approval is obtained from SWCA.

Constituent	Test Schedule
PM/PM_{10} (*total*)	Initial test conducted within 60 days of achieving maximum melt rate, but not later than 180 days after initial startup. Periodic testing conducted at least once every 12 months thereafter.
VOC	Initial test conducted within 60 days of achieving maximum melt rate, but not later than 180 days after initial startup. Periodic testing conducted at least once every 36 months thereafter.
Sulfuric acid	Initial test conducted within 60 days of achieving maximum melt rate, but not later than 180 days after initial startup. Only initial testing is required.
Total fluoride	Initial test conducted within 60 days of achieving maximum melt rate, but not later than 180 days after initial startup. Only initial testing is required.

b. **Test Plan.** A comprehensive test plan must be submitted to SWCAA for review and approval at least 14 calendar days prior to each test. SWCAA personnel must be informed at least 7 calendar days prior to testing so that a representative may be present during testing.

c. **Test Location.** Sampling must be conducted at the glass furnace exhaust stack

d. **Test Methods.** At least 3 test runs of the specified minimum duration must be performed for each constituent listed below. Compliance must be demonstrated by averaging the results of the individual sampling runs.

Constituent	Test Method or Equivalent	Minimum Test Duration
Stack gas velocity	EPA Methods 1 and 2	N/A
O_2 and CO_2	EPA Method 3 or 3A	N/A
Moisture	EPA Method 4	60 minutes
Filterable PM/PM_{10}	EPA Method 5 or 201A	Sample >100 dscf
Condensable PM/PM_{10}	EPA Method 202	Sample >100 dscf
VOC	EPA Method 25 or 25A or 25B	60 minutes
Sulfuric acid	EPA Method 8 or NCASI 8A	60 minutes
Total fluoride	EPA Method 26A	60 minutes

3. Source Operation:

a. **Operating Capacity.** Source operations during the emissions test must be representative of maximum intended operating conditions.

b. **Record of Production Parameters.** Production related parameters and equipment operating conditions must be recorded during emissions testing to correlate operating conditions with emissions. All relevant production parameters must be documented in the test results report. Recorded parameters must, at a minimum, include the following:

- Furnace heat input (MMBtu)
- Weight of glass draw (tons)
- Field power in each field of the glass furnace ESP (kW)
- Contemporaneous furnace adjustments

4. Reporting Requirements:

a. **Test Report.** A final emission test report must be prepared and submitted to SWCAA within 45 calendar days of test completion. Unless otherwise directed by SWCAA, test reports must be provided in hard copy (paper) and an electronic format approved by SWCAA. Each test report must, at a minimum, contain the following information:

(1) Description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations,
(2) Time and date of the test and identification and qualifications of the personnel involved, including identification of SWCAA personnel who observed test,
(3) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit,
(4) Summary of control system or equipment operating conditions,
(5) Summary of production related parameters,
(6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation,
(7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation,
(8) Copies of field data and example calculations,
(9) Chain of custody information,
(10) Calibration documentation,
(11) Discussion of any abnormalities associated with the results, and
(12) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

b. **Reported Units.** Test results must be presented in units of parts per million by volume (ppmv – gaseous pollutants), grains per dry standard cubic feet (gr/dscf- PM), pounds per hour (lb/hr) and pounds per ton of glass draw (lb/T_G). VOC results must be reported on an "as propane" basis. Concentration values must be corrected to 7% excess oxygen.

5. Changes to Testing Requirements:

The emission test must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or to the testing schedule. Upon review of the request, SWCAA will inform the Permittee in writing of any approved modifications.

Appendix B
Glass Furnace – CEMS Audit Requirements

1. Introduction:
The purpose of the following requirements is to demonstrate the accuracy and proper operation of the CEMS for NO_X, CO, and SO_2.

2. Performance Requirements:
CEMS in use at the facility must satisfy the requirements of the performance specifications listed below. The Relative Accuracy Test Audit (RATA) required for each CEMS must be conducted during simultaneous test periods.

a. **NO_X.** The continuous monitoring system for the emission rate of NO_X from the exhaust stack of the glass furnace must be installed and maintained in accordance with the requirements and specifications found in the following regulations:

- 40 CFR 60 Appendix B, Performance Specification 6
- 40 CFR 60 Appendix F

b. **CO.** The continuous monitoring system for the emission rate of CO from the exhaust stack of the glass furnace must be installed and maintained in accordance with the requirements and specifications found in the following regulations:

- 40 CFR 60 Appendix B, Performance Specification 6
- 40 CFR 60 Appendix F

c. **SO_2.** The continuous monitoring system for the emission rate of SO_2 from the exhaust stack of the glass furnace must be installed and maintained in accordance with the requirements and specifications found in the following regulations:

- 40 CFR 60 Appendix B, Performance Specification 6
- 40 CFR 60 Appendix F

d. **RATA Audit Reports.** Quarterly audit results must be submitted to SWCAA as part of each quarterly report. RATA results must be submitted to SWCAA within 45 days of test completion.

Appendix C
Cullet Return Baghouse #1 – Emission Testing Requirements

1. Introduction:

The purpose of this testing is to quantify emissions from Cullet Return Baghouse #1 and demonstrate compliance with the requirements of this Permit.

2. Testing Requirements:

a. **Test Schedule.** Cullet Return Baghouse #1 must be emission tested no later than March 2025. Periodic testing must be conducted every 36 months thereafter, no later than the end of March. Emission testing conducted more than three months prior to a scheduled due date will not satisfy the periodic source emission testing requirement unless prior written approval is obtained from SWCAA.

b. **Test Plan.** A comprehensive test plan must be submitted to SWCAA for review and approval at least 14 calendar days prior to each test. SWCAA personnel must be informed at least 7 calendar days prior to testing so that a representative may be present during testing.

c. **Test Location.** Sampling must be conducted at the exhaust stack of Cullet Return Baghouse #1.

d. **Test Methods.** A minimum of 3 test runs must be performed for each constituent listed below to ensure the data are representative. Compliance must be demonstrated by averaging the results of the individual sampling runs.

Constituent	Test Method or Equivalent	Minimum Test Duration
Flow rate, temperature	EPA Method 1 and 2	N/A
O_2, CO_2 content	EPA Method 3 or 3A	60 minutes
Moisture content	EPA Method 4 or ODEQ Method 4	60 minutes
Filterable PM/PM_{10}	EPA Method 5 or 17	Sample >100 dscf

3. Source Operation:

a. **Operating Capacity.** Source operations during the emissions test must be representative of maximum intended operating conditions.

b. **Record of Production Parameters.** Production related parameters and equipment operating conditions must be recorded during emissions testing to correlate operating conditions with emissions. All recorded production parameters must be documented in the test results report. Recorded parameters must, at a minimum, include the following:

- Process startups and shutdowns
- Differential pressure across filter media

4. Reporting Requirements:

a. **Test Report**. A final emission test report must be prepared and submitted to SWCAA within 45 calendar days of test completion. The test report must, at a minimum, contain the following information:

(1) Description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations,
(2) Time and date of the test and identification and qualifications of the personnel involved, including identification of SWCAA personnel who observed test,
(3) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit,
(4) Summary of control system or equipment operating conditions,
(5) Summary of production related parameters,
(6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation,
(7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation,
(8) Copies of field data and example calculations,
(9) Chain of custody information,
(10) Calibration documentation,
(11) Discussion of any abnormalities associated with the results, and
(12) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

b. **Reported Units.** Test results must be presented in units of pounds per hour (lb/hr) and grains per dry standard cubic feet (gr/dscf). No oxygen correction is required.

5. Changes to Testing Requirements:

The emission test must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or to the testing schedule. Upon review of the request, SWCAA will inform the Permittee in writing of any approved modifications.

Appendix D
Cullet Return Baghouse #2 – Emission Testing Requirements

1. Introduction:

The purpose of this testing is to quantify emissions from Cullet Return Baghouse #2 and demonstrate compliance with the requirements of this Permit.

2. Testing Requirements:

a. **Testing Schedule.** Cullet Return Baghouse #2 must be emission tested no later than March 2024. Periodic testing must be conducted every 60 months thereafter, no later than the end of March. Emission testing conducted more than three months prior to a scheduled due date will not satisfy the periodic source emission testing requirement unless prior written approval is obtained from SWCAA.

b. **Test plan.** A comprehensive test plan must be submitted to SWCAA for review and approval at least 14 calendar days prior to each test. SWCAA personnel must be informed at least 7 calendar days prior to testing so that a representative may be present during testing.

c. **Test Location.** Sampling must be conducted at the exhaust stack of Cullet Return Baghouse #2.

d. **Test Methods.** A minimum of three (3) test runs must be performed for each constituent listed below to ensure the data are representative. Compliance must be demonstrated by averaging the results of the individual sampling runs.

Constituent	Reference Test Method	Minimum Test Duration
Flow rate, temperature	EPA Method 1 and 2	N/A
O_2, CO_2	EPA Method 3 or 3A	60 minutes
Moisture	EPA Method 4 or ODEQ Method 4	60 minutes
PM/PM_{10}	EPA Method 5 or 17	60 minutes
Opacity	SWCAA Method 9	20 minutes

3. Source Operation:

a. **Operating Capacity.** Source operations during the emissions test must be representative of maximum intended operating capacity.

b. **Record of production parameters.** Production related parameters and equipment operating conditions must be recorded during emissions testing to correlate operating conditions with emissions. All recorded production parameters must be documented in the test results report. Recorded parameters must, at a minimum, include the following:

- Process startups and shutdowns
- Differential pressure across filter media

4. Reporting Requirements:

a. **Test Report.** A final emission test report must be prepared and submitted to SWCAA within 45 calendar days of test completion. The test report must, at a minimum, contain the following information:

(1) Description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations,
(2) Time and date of the test and identification and qualifications of the personnel involved, including identification of SWCAA personnel who observed test,
(3) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit,
(4) Summary of control system or equipment operating conditions,
(5) Summary of production related parameters,
(6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation,
(7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation,
(8) Copies of field data and example calculations,
(9) Chain of custody information,
(10) Calibration documentation,
(11) Discussion of any abnormalities associated with the results, and
(12) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

b. **Reported Units.** Test results must be presented in units of pounds per hour (lb/hr) and grains per dry standard cubic feet (gr/dscf). No oxygen correction is required.

5. Changes to Testing Requirements:

The emission test must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or to the testing schedule. Upon review of the request, SWCAA will inform the Permittee in writing of any approved modifications.

Appendix E
EP Dust Baghouses – Emission Testing Requirements

1. Introduction:
The purpose of this testing is to quantify emissions from EP Dust baghouses with identified excess visible emissions and demonstrate compliance with the requirements of this Permit.

2. Testing Requirements:

a. **Testing schedule.** Each affected baghouse required by SWCAA to emission test due to excess visible emissions, must be emission tested no later than 60 days following the source's receipt of the associated Notice of Violation. Periodic emission testing may also be required with a frequency not to exceed once every 60 months. Alternate testing schedules may be implemented if approved in writing by SWCAA in advance of the regularly scheduled test.

b. **Test plan.** A comprehensive test plan must be submitted to SWCAA for review and approval at least 14 calendar days prior to each test. SWCAA personnel must be informed at least 7 calendar days prior to testing so that a representative may be present during testing.

c. **Test Location.** Sampling must be conducted at the exhaust stack of the EP Dust Baghouse.

d. **Test Methods.** A minimum of three (3) test runs must be performed for each constituent listed below to ensure the data are representative. Compliance must be demonstrated by averaging the results of the individual sampling runs.

Constituent	Reference Test Method	Minimum Test Run Duration
Stack gas velocity, flow rate	EPA Methods 1 and 2	N/A
O_2, CO_2	EPA Method 3 or 3A	60 minutes
Moisture	EPA Method 4 or ODEQ Method 4	60 minutes
PM/PM_{10}	EPA Method 5 or 17	60 minutes
Opacity	SWCAA Method 9	20 minutes

3. Source Operation:

a. **Operating Capacity.** Source operations during the emissions test must be representative of maximum intended operating conditions.

b. **Record of production parameters.** Production related parameters and equipment operating conditions must be recorded during emissions testing to correlate operating conditions with emissions. All recorded production parameters must be documented in the test results report. Recorded parameters must, at a minimum, include the following:

- Process startups and shutdowns
- Differential pressure across filter media

4. Reporting Requirements:

a. **Test Report.** A final emission test report must be prepared and submitted to SWCAA within 45 calendar days of test completion. The test report must, at a minimum, contain the following information:

(1) Description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations,
(2) Time and date of the test and identification and qualifications of the personnel involved, including identification of SWCAA personnel who observed test,
(3) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit,
(4) Summary of control system or equipment operating conditions,
(5) Summary of production related parameters,
(6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation,
(7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation,
(8) Copies of field data and example calculations,
(9) Chain of custody information,
(10) Calibration documentation,
(11) Discussion of any abnormalities associated with the results, and
(12) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

b. **Reported Units.** All test results must be presented in units of pounds per hour (lb/hr) and grains per dry standard cubic feet (gr/dscf). No oxygen correction is required.

5. Changes to Testing Requirements:

The emission test must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or to the testing schedule. Upon review of the request, SWCAA will inform the Permittee in writing of any approved modifications.