WASHINGTON STATE DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE
4601 NORTH MONROE
SPOKANE, WASHINGTON 99205-1295

IN THE MATTER OF THE COMPLIANCE BY WASHINGTON STATE UNIVERSITY LOCATED IN PULLMAN, WASHINGTON with Section 70.94.161 RCW, Operating Permits for Air Contaminant Sources, and the applicable rules and regulations of the Department of Ecology	))))))	AIR OPERATING PERMIT No. 07AQ-E211 **FINAL PERMIT**

To: Washington State University
P.O. Box 641045
Pullman, Washington 99164

Issuance Date:	July 30, 2007
Effective Date:	August 1, 2007
Expiration Date:	July 31, 2012

Responsible Official: Mr. Greg Royer, Vice President of Business Affairs

Legal Authority: This Air Operating Permit is issued under the authority and provisions of the Federal Clean Air Act (FCAA), (42 U.S.C. 7401, et seq.), the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington (RCW) and the Operating Permit Regulation, Chapter 173-401 Washington Administrative Code (WAC).

Hereinafter, Washington State University is called the permittee. The permittee is required to comply with the provisions contained within this permit.

This Air Operating Permit, DATED at Spokane, Washington, this 30th day of July, 2007

PREPARED BY:

David W. Wendland
Regional Air Quality Section
Department of Ecology
State of Washington

REVIEWED BY:

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LIST OF ABBREVIATIONS

AOP	Air Operating Permit
ASIL	Acceptable Source Impact Level
BACT	Best Available Control Technology
BTU	British Thermal Units
°C	Degrees Celsius
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
CEMS	Continuous Emission Monitoring System
dscf/m	Dry Standard Cubic Foot per minute
Ecology	Washington State Department of Ecology
E.I.T.	Engineer in Training
EPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit
FCAA	Federal Clean Air Act
ft^3	Cubic foot
gr/dscf	Grain(s) per dry standard cubic foot
HMIWI	Hospital-Medical-Infectious Waste Incinerator
hr	Hour
HVAC	Heating, Ventilation, Air Conditioning
MMBTU	Million British Thermal Units
MRRR	Monitoring, Recordkeeping, and Reporting Requirement
MVAC	Motor Vehicle Air Conditioner
N_2	Nitrogen gas
NOC	Notice of Construction
NO_x	Oxides of Nitrogen
NSPS	New Source Performance Standard
O_2	Oxygen
O&M	Operation & Maintenance
P.E.	Professional Engineer
PM	Particulate Matter
PM-10	Particulate Matter with aerodynamic diameter ≤ 10 micrometers
ppm	Parts per million
QIP	Quality Improvement Plan
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
RICE	Reciprocating Internal Combustion Engine
RM	EPA Reference Method from 40 CFR Part 60, Appendix A
scfm	Standard Cubic Feet per Minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
T	Temperature
TAP	Toxic Air Pollutant
TPY	Tons Per Year
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
w%	Percentage by Weight
yr	Year

All information required for submittal throughout this permit, is to be submitted to Ecology, EPA, or both as specified by the applicable requirement, at the following addresses:

Air Quality Program
Department of Ecology
4601 North Monroe
Spokane, Washington 99205-1295

U.S. EPA Region 10 Administrator
Air Permits MS: OAQ-108
1200 Sixth Avenue
Seattle, Washington 98101

1. STANDARD CONDITIONS

1.1 Permit Shield

1.1.1 Compliance with the terms and conditions of this permit shall be deemed compliance with those applicable requirements that are specifically included and identified in this permit as of the date of permit issuance.

1.1.2 The permit shield shall not apply to any insignificant emissions unit or activity designated under WAC 173-401-530.

[WAC 173-401-530(3), 09/16/02], [WAC 173-401-640(1), 09/16/02], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 1.1]

1.2 Enforceability All terms and conditions of the permit are enforceable by the EPA and citizens unless specifically designated as state-only enforceable.

[WAC 173-401-625, 09/16/02]

1.3 Permit Fees The permittee shall pay fees as a condition of this permit in accordance with Ecology's fee schedule (see WAC 173-401-900(6)). Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in chapter 70.94 RCW. Ecology may revoke this operating permit if the permit fees are not paid, per WAC 173-401-930(3).

[WAC 173-401-620(2)(f), 930(3), 09/16/02], [RCW 70.94.162(1), 1/4/01 (S)], , [Order No. DE 98AQ-E124, 1st Amendment, Issued 07/30/07, Approval Condition 11.9], [Order No. 01AQER-3336, Issued 11/07/01, Approval Condition 8.9], [Order No. DE 95AQ-E148, Issued 09/27/95, Approval Condition 5.8], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 8.10]

1.4 Permit Continuation This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall 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) shall remain in effect until the renewal permit has been issued or denied if a timely and complete application has been submitted.

[WAC 173-401-620(2)(j), 09/16/02]

1.5 Property Rights This permit does not convey any property rights of any sort, or any exclusive privilege.

[WAC 173-401-620(2)(d), 09/16/02]

1.6 Inspection and Entry Upon presentation of credentials and other documents as may be required by law, the permittee shall allow Ecology, EPA, or an authorized representative to perform the following:

1.6.1 Enter upon the permittee's premises where a chapter 401 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

1.6.2 Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.

1.6.3 Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

1.6.4 As authorized by WAC 173-400-105 and the FCAA, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.

1.6.4.1 Ecology may require the permittee to conduct stack testing and/or ambient air monitoring and report the results to Ecology.

1.6.4.2 Ecology may conduct or require that a test be conducted using approved methods from 40 CFR parts 51, 60, 61 and 63 (in effect on February 20, 2001), or Ecology's Source Test Manual – Procedures for Compliance Testing. The permittee shall be required to provide platform and sampling ports. Ecology shall be allowed to obtain a sample from any emissions unit. The permittee shall be given the opportunity to observe the sampling and to obtain a sample at the same time.

1.6.5 No person shall obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties.

1.6.6 Nothing in this condition shall limit the ability of EPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the FCAA.

[WAC 173-401-630(2), 09/16/02], [WAC 173-400-105(2),(4), 8/20/93, 1/10/05 (S)], [RCW 70.94.200, 1/4/01 (S)], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 2.3, 11.3], [Order No. 01AQER-3336, Issued 11/07/01, Approval Conditions 2.3, 3, 8.3], [Order No. DE 95AQ-E148, Issued 09/27/95, Approval Conditions 4.1, 5.3], [40 CFR 60.8(e), 07/01/02], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 8.3]

1.7 **Duty to Comply** The permittee must comply with all conditions of this chapter 173-401 operating permit. Any permit noncompliance constitutes a violation of chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

[WAC 173-401-620(2)(a), 09/16/02], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Conditions 11.7, 11.8], [Order No. 01AQER-3336, Issued 11/07/01, Approval Conditions 8.7, 8.8], [Order No. DE 95AQ-E148, Issued 09/27/95, Approval Condition 5.6], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 8.7, 8.8]

1.8 **Duty to Provide Information** The permittee shall furnish to Ecology, within a reasonable time, any information that Ecology 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 shall also furnish to Ecology copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to Ecology along with a claim of confidentiality. Ecology shall maintain confidentiality of such information in accordance with RCW 70.94.205.

No person shall make any false material statement, representation or certification in any form, notice or required report. No person shall render inaccurate any required monitoring device or method.

[WAC 173-401-620(2)(e), 09/16/02], [WAC 173-400-105(7), (8), 8/20/93, 1/10/05 (S)]

1.9 Duty to Supplement or Correct Application The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

[WAC 173-401-500(6), 09/16/02]

1.10 Need to Halt or Reduce Activity not a Defense It shall not be 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.

[WAC 173-401-620(2)(b), 09/16/02]

1.11 Excess Emissions Due to an Emergency The permittee may seek to establish that noncompliance with a technology-based[1] emission limitation under this permit was due to an emergency.[2] To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

1.11.1 An emergency occurred and that the permittee can identify the cause(s) of the emergency;

1.11.2 The permitted facility was being properly operated at the time of the emergency;

1.11.3 During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit, and

1.11.4 The permittee submitted notice of the emergency to Ecology within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[WAC 173-401-645, 09/16/02]

1.12 Unavoidable Excess Emissions Excess emissions determined to be unavoidable under the procedures and criteria in WAC 173-400-107 shall be excused and not subject to penalty.

1.12.1 The permittee shall have the burden of proving to Ecology that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief under 1.12.2, 1.12.3, or 1.12.4.

1.12.2 Excess emissions due to startup or shutdown conditions shall be considered unavoidable provided the source reports excess emissions as required under Standard Condition 1.13.1 and adequately demonstrates that the excess emissions could not have been prevented through careful planning and design and if a bypass of control equipment occurs, that such bypass is necessary to prevent loss of life, personal injury, or severe property damage.

1.12.3 Excess emissions due to scheduled maintenance shall be considered unavoidable if the source reports as required under Standard Condition 1.13.1 and adequately demonstrates that the excess

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1 Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain a health based air quality standard.

2 An "emergency" means any situation arising from sudden and reasonably enforceable events beyond the control of this source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

emissions could not have been avoided through reasonable design, better scheduling for maintenance or through better operation and maintenance practices.

1.12.4 Excess emissions due to upsets shall be considered unavoidable provided the source reports as required under Standard Condition 1.13.1 and adequately demonstrates that:

1.12.4.1 The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition.

1.12.4.2 The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance.

1.12.4.3 The operator took immediate and appropriate corrective action in a manner consistent with 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.

[WAC 173-400-107(3), 8/20/93, 1/10/05 (S)], [WAC 173-400-107, 8/20/93, 1/10/05 (S)]

1.13 Reporting

1.13.1 Monthly Deviation Reports The permittee shall report deviations from permit conditions, including those attributable to upset conditions as defined in this permit, and include the following information: the time the deviation occurred, the duration of the deviation, the magnitude of the deviation in relation to the applicable limit, the probable cause of the deviation, and any corrective actions or preventive measures taken. Such deviations shall be reported to Ecology at the address included in this permit.

For deviations which represent a potential threat to human health or safety, or which the source believes to be unavoidable, "promptly" means as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered. Other deviations shall be reported no later than thirty days after the end of the month during which the deviation is discovered. Upon request by Ecology, the permittee shall submit a full written report including further details regarding the known causes, the corrective actions taken, and the preventative measures to be taken to minimize or eliminate the chance of recurrence. The source shall maintain a contemporaneous record of all deviations. Responsible official certification in accordance with Condition 1.13.5 of monthly deviation reports shall be included in each semi-annual monitoring report covering all deviation reports made during the previous six month period.

[WAC 173-401-615(3)(b), 09/16/02], [WAC 173-400-107, 8/20/93, 1/10/05 (S)], [WAC 173-401-630(1), 09/16/02]

1.13.2 Semi-Annual Monitoring Reports The permittee shall submit semi-annual reports which include monitoring, recordkeeping, and/or reporting information required to be reported under Section 3 of this permit unless stated otherwise in a specific MRRR. Six-month periods shall be twice each calendar year from January 1st through June 30th, and from July 1st through December 31st. Semi-annual monitoring reports shall be due no later than ninety (90) days following the end of each six (6) month period. The initial monitoring report submitted under this Second Revision to the AOP shall cover the period between the latest report submitted and either June 30th or December 31st. All instances of deviations from permit requirements must be clearly identified in such reports. The report must include identification of all months during which no deviations occurred. All required reports must be certified by a responsible official consistent with Condition 1.13.5.

[WAC 173-401-615(3)(a), 09/16/02]

1.13.3 Compliance Certifications The permittee shall submit a certification of compliance with permit terms and conditions at least once per calendar year. All certifications shall be submitted no later than ninety (90) days following the end of the certification period. The first certification submitted under this Second Revision shall be submitted for the period of time between the latest certification submitted and the end of the calendar year. Ecology may require that compliance certifications be submitted more frequently for those emission units not in compliance with permit terms and conditions, or where more frequent certification is specified in the applicable requirement.

[WAC 173-401-630(5)(a), 09/16/02], [WAC 173-401-630(1), 09/16/02]

1.13.3.1 The certification shall describe and include the following:

1.13.3.1.1 The permit term or condition that is the basis of the certification.

1.13.3.1.2 The current compliance status.

1.13.3.1.3 Whether compliance was continuous or intermittent.

1.13.3.1.4 The methods used for determining compliance, currently and over the reporting period consistent with WAC 173-401-615(3)(a).

1.13.3.1.5 Such other facts as the authority may require to determine the compliance status of the source.

[WAC 173-401-630(5)(c), 09/16/02]

1.13.3.2 All compliance certifications shall be submitted to Ecology and EPA Region 10 at the respective addresses included in this permit.

[WAC 173-401-630(5)(d), 09/16/02]

1.13.3.3 The permittee need not certify compliance for insignificant emission units or activities.

[WAC 173-401-530(2)(d), 09/16/02]

1.13.3.4 All compliance certifications shall include certification by a responsible official in accordance with Condition 1.13.5.

1.13.3.5 For the purpose of submitting compliance certifications, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

[40 CFR 52.33(a), 07/01/02], [40 CFR 60.11(g), 07/01/02]

1.13.4 Emission Inventory The permittee shall submit an inventory of actual emissions from the source for each calendar year. The inventory shall include segmented stack and fugitive emissions of TSP, PM-10, SO_2, CO, NO_X, lead, and VOC's, and shall be submitted no later than **April 15th** of the following year. The source shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards. Emissions inventories shall be sent to Ecology at the address included in this permit.

[WAC 173-400-105(1), 8/20/93, 1/10/05(S)], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 7.4]

1.13.5 Submittals Reports, test data, monitoring data, notifications, certifications, and applications (including requests for renewal) shall be submitted to Ecology at the address included in this permit. Any document submitted to Ecology pursuant to this permit shall contain certification of

truth, accuracy, and completeness by a responsible official. All certifications shall state that *"based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete"*. The permittee shall promptly, upon discovery, report to Ecology any material error or omission in these records, reports, plans or other documents.

[WAC 173-401-520, 09/16/02], [WAC 173-401-500(6), 09/16/02], [40 CFR 60.4(a), (b), 07/01/02], [Order No. 03AQER-5744, 1st Amendment, Issued 07/30/07, Approval Condition 7.2]

1.14 Severability If any provision of this permit, or application of any provision of this permit, is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable.

[WAC 173-401-620(2)(h), 09/16/02], [RCW 70.94.905, 1/4/01 (S)]

1.15 Administrative Permit Amendments

1.15.1 An administrative permit amendment is a permit revision that:

1.15.1.1 Allows for a change in ownership or operational control of this source where the permitting authority has determined that no other change in this permit is necessary and 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 Ecology,

1.15.1.2 Corrects typographical errors within the permit,

1.15.1.3 Identifies a change in the name, address, or phone number of any person identified in the permit, or provides for a similar minor administrative change at the source,

1.15.1.4 Requires more frequent monitoring or reporting by the permittee, or

1.15.1.5 Incorporates into the permit the terms, conditions, and provisions from orders approving notice of construction applications processed under an EPA-approved program, provide that such a program meets procedural requirements substantially equivalent to the requirements of WAC 173-401-700, 173-401-725, and 173-401-800 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in WAC 173-401-600 through 173-401-650.

1.15.2 The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

1.15.3 The permitting authority shall, upon taking final action granting a request for an administrative permit amendment, allow coverage by the permit shield in WAC 173-401-640 for administrative permit amendments made pursuant to condition 1.15.1.5 above.

[WAC 173-401-720, 09/16/02]

1.16 Permit Actions This operating 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 re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[WAC 173-401-620(2)(c), 09/16/02]

1.17 Reopening for Cause

1.17.1 Ecology will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1.17.1.1 Additional requirements under the FCAA become applicable to a major source three (3) or more years prior to the expiration date of this permit. Such a reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j).

1.17.1.2 Ecology or the Administrator determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

1.17.1.3 Ecology or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

1.17.2 Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

1.17.3 Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by Ecology at least 30 days in advance of the date that this permit is to be reopened, except that Ecology may provide a shorter time period in the case of an emergency.

1.17.4 All permit conditions remain in effect until such time as Ecology takes final action.

[WAC 173-401-730, 09/16/02]

1.18 Off-Permit Changes The permittee is allowed to make certain changes that are not specifically addressed or prohibited by this permit without a permit revision. All such changes must meet the following conditions:

1.18.1 The proposed changes shall not weaken the enforceability of any existing permit conditions.

1.18.2 Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

1.18.3 Before or contemporaneously with making the permit change, the permittee must provide written notice to Ecology and EPA Region 10 at the respective addresses included in this permit. Such written notice shall describe each such change, including the date, any change in emissions or pollutants emitted, and any applicable requirements that would apply as a result of the change.

1.18.4 The change shall not qualify for the permit shield under Standard Condition 1.1.

1.18.5 The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permitted facility.

1.18.6 A source making a change under this section shall comply with the preconstruction review requirements established pursuant to Standard Condition 1.20.

[WAC 173-401-724, 09/16/02]

1.19 Changes not Requiring Permit Revisions

1.19.1 *Section 502(b)(10) changes.* The permittee is authorized to make section 502(b)(10) changes, as defined in WAC 173-401-200(28), without a permit revision, providing the conditions included below are met. The permit shield as described in Standard Condition 1.1 shall not apply to any change made pursuant to this paragraph.

1.19.1.1 The proposed changes are not Title I (FCAA) modifications;

1.19.1.2 The proposed changes do note result in emissions which exceed those allowable under the permit, whether expressed as a rate of emissions, or in total emissions;

1.19.1.3 The proposed changes do not alter permit terms that are necessary to enforce limitation on emissions from units covered by the permit;

1.19.1.4 The facility provides Ecology and EPA with written notification at least seven days prior to making the proposed changes except that written notification of a change made in response to an emergency shall be provided as soon as possible after the event;

1.19.1.4.1 The written notification shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

1.19.2 *Changes related to Emissions trading under an emissions cap.* Pursuant to Standard Condition 1.19.1, the permittee is authorized to trade increases and decreases in emission in the permitted facility, where the Washington state implementation plan provides for such emissions trades without requiring a permit revision. This provision is available in those cases where the permit does not already provide for such emissions trading. Such changes shall be subject to the following:

1.19.2.1 The written notification required under Standard Condition 1.19.1.4 shall include such information as may be required by the provision in the Washington SIP authorizing the emissions trade, including at a minimum, when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the Washington SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the applicable implementation plan and that provide for the emissions trade. The notification shall state how any increases or decreases in emissions will comply with the terms and conditions of the permit. (The permit shield described under Standard Condition 1.1 shall extend to terms and conditions that allow such increases and decreases.)

1.19.2.2 The permit shield described in Standard Condition 1.1 shall not extend to any change made under this paragraph. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.

1.19.2.3 Upon the request of the permit applicant, Ecology shall issue permits that contain terms and conditions, including all terms required under WAC 173-401-600 through 173-401-630 to determine compliance, allowing for the trading of emissions increases and decreases in the chapter 173-401 WAC source solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit independent of otherwise applicable requirements. The permit applicant shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The emissions trading provision shall not be applied to any emissions units for which emission are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.

1.19.2.4 A source making a change under this section shall comply with applicable preconstruction review requirements established pursuant to Standard Condition 1.20.

1.19.2.5 No permit revision shall be required, under any approved economic incentives, marketable permits, and other similar programs or processes for changes that are provided for in this permit such as emissions trading.

[WAC 173-401-722, 09/16/02], [WAC 173-401-620(2)(g), 09/16/02]

1.20 New Source Review The permittee shall not construct new sources or make modifications required to be reviewed under WAC 173-400-110, WAC 173-400-113, WAC 173-400-141, or WAC 173-460 before the permittee obtains written final approval from Ecology in accordance with those regulations, pays the appropriate fees required by WAC 173-400-116, and pays the cost of public notice described in WAC 173-400-171.

[WAC 173-400-110, 8/20/93, 1/10/05 (S)], [WAC 173-400-113, 8/20/93, 1/10/05 (S)], [WAC 173-400-116, 1/10/05 (S)], [WAC 173-400-141, 1/10/05 (S)], [WAC 173-400-171, 8/20/93, 1/10/05 (S)], [WAC 173-460, 7/21/98 (S)], [RCW 70.94.152, 1/4/01 (S)]

1.21 Replacement or Substantial Alteration of Emission Control Technology . Prior to replacing or substantially altering emission control technology subject to review under WAC 173-400-114, the permittee shall file for and obtain approval from Ecology according to that regulation. The permittee shall pay the appropriate fees required by WAC 173-400-045(4) prior to commencing construction.

[WAC 173-400-045(4), 1/10/05 (S)], [RCW 70.94.153, 1/4/01 (S)]

1.22 Operational Flexibility

1.22.1 In the event that an emission unit is not operated during a period equal to or greater than the monitoring period designated, no monitoring is required. Recordkeeping and reporting must note the reason why and length of time that the emission unit was not operated.

1.22.2 The permittee did not propose any further alternative operating scenarios.

[WAC 173-401-650, 09/16/02]

1.23 Permit Appeals This permit or any conditions in it may be appealed only by filing an appeal with the Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903 and concurrently serving it on the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600 and the Department of Ecology, Regional Air Quality Section, 4601 North Monroe, Spokane, WA 99205-1295 within thirty days of receipt of this 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 § 505(b) of the FCAA.

[WAC 173-401-620(2)(i), 09/16/02]

1.24 Federal Chlorofluorocarbons (CFC) Requirements – Title VI of the FCAA & Federal Requirements Applying to Halon Fire Suppression Systems

1.24.1 Federal CFC Requirements

1.24.1.1 The permittee shall comply with the following standards for recycling and emissions reductions pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in subpart B.

1.24.1.1.1 Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.

1.24.1.1.2 Equipment used during the maintenance, service, repair or disposal must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

1.24.1.1.3 Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

1.24.1.1.4 Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" is defined at 40 CFR 82.152.)

1.24.1.1.5 Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156.

1.24.1.1.6 Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep servicing records documenting the date and type of service, as well as the quantity of refrigerant added. The owner/operator must keep records of refrigerant purchased and added to such appliances in cases where owners add their own refrigerant. Such records should indicate the date(s) when refrigerant is added pursuant to 40 CFR 82.166.

1.24.1.1.7 Persons conducting maintenance, service, repair, or disposal of appliances must follow the prohibitions pursuant to 40 CFR 82.154.

1.24.1.1.8 Person performing maintenance, service, repair, or disposal of appliances must certify to the Administrator that such person has acquired certified recovery of recycling equipment pursuant to 40 CFR 82.162.

1.24.1.2 If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR 82, Subpart A – Production and Consumption Controls.

1.24.1.3 If the permittee performs a service on monitor (fleet) vehicles and when this service involves ozone depleting substance refrigerant in the MVAC, the permittee is subject to all applicable requirements as specified in 40 CFR 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.

1.24.1.4 The permittee shall be allowed to switch from any ozone depleting substance to any alternative that is listed in the Significant New Alternative Program promulgated pursuant to 40 CFR 82, Subpart G – Significant New Alternative Policy Program.

1.24.2 Federal Requirements Applying to Halon Fire Suppression Systems

1.24.2.1 Effective April 6, 1998, no person testing, maintaining, servicing, repairing, or disposing of halon-containing equipment or using such equipment for technician

training may knowingly vent or otherwise release into the environment any halons used in such equipment.

1.24.2.1.1 De minimis releases associated with good faith attempts to recycle or recover halon are not subject to this prohibition.

1.24.2.1.2 Release of residual halon contained in fully discharged total flooding fire extinguishing systems would be considered a *de minimis* release associated with good faith attempts to recycle or recover halon.

1.24.2.1.3 Release of halons during testing of fire extinguishing systems is not subject to this prohibition if the following four conditions are met:

1.24.2.1.3.1 Systems or equipment employing suitable alternative fire extinguishing agents are not available,

1.24.2.1.3.2 System or equipment testing requiring release of extinguishing agent is essential to demonstrate system or equipment functionality,

1.24.2.1.3.3 Failure of the system or equipment would pose great risk to human safety or the environment; and

1.24.2.1.3.4 A simulant agent cannot be used in place of the halon during system or equipment testing for technical reasons.

1.24.2.1.4 Releases of halons associated with research and development of halon alternatives, and releases of halons necessary during analytical determination of halon purity using established laboratory practices are exempt from this prohibition.

1.24.2.1.5 This prohibition does not apply to qualification and development testing during the design and development process of halon-containing systems or equipment when such tests are essential to demonstrate system or equipment functionality and when a suitable simulant agent can not be used in place of the halon for technical reasons.

1.24.2.1.6 This prohibition does not apply to the emergency release of halons for the legitimate purpose of fire extinguishing, explosion inertion, or other emergency applications for which the equipment or systems were designed.

1.24.2.2 Effective April 6, 1998, organizations that employ technicians who test, maintain, service, repair or dispose of halon-containing equipment shall take appropriate steps to ensure that technicians hired on or before April 6, 1998 will be trained regarding halon emissions reduction by September 1, 1998. Technicians hired after April 6, 1998 shall be trained regarding halon emissions reduction within 30 days of hiring, or by September 1, 1998, whichever is later.

1.24.2.3 Effective April 6, 1998, no person shall dispose of halon-containing equipment except by sending it for halon recovery to a manufacturer operating in accordance with NFPA 10 and NFPA 12A standards, a fire equipment dealer operating in accordance with NFPA 10 and NFPA 12A standards or a recycler operating in accordance with NFPA 10 and NFPA 12A standards. This provision does not apply to ancillary system devices such as electrical detection control components which are not necessary to the safe and secure containment of the halon within the equipment,

to fully discharged total flooding systems, or to equipment containing only de minimis quantities of halons.

1.24.2.4 Effective April 6, 1998, no person shall dispose of halon except by sending it for recycling to a recycler operating in accordance with NFPA 10 and NFPA 12A standards, or by arranging for its destruction using one of the following controlled processes:

1.24.2.4.1 Liquid injection incineration,

1.24.2.4.2 Reactor cracking,

1.24.2.4.3 Gaseous/fume oxidation,

1.24.2.4.4 Rotary kiln incineration,

1.24.2.4.5 Cement kiln,

1.24.2.4.6 Radiofrequency plasma destruction; or

1.24.2.4.7 An EPA-approved destruction technology that achieves a destruction efficiency of 98% or greater.

1.24.2.5 Effective April 6, 1998, no owner of halon-containing equipment shall allow halon release to occur as a result of failure to maintain such equipment.

[40 CFR 82, 07/01/02], [RCW 70.94.970, 1/4/01 (S)], [RCW 70.94.980, 1/4/01 (S)]

1.25 Reasonably Available Control Technology (RACT) Emission standards and other requirements contained in rules or regulatory orders in effect at the time of operating permit issuance or renewal shall be considered RACT for the purpose of permit issuance or renewal. RACT determinations under section 8, chapter 252, Laws of 1993 shall be incorporated into an operating permit as provided in WAC 173-401-730.

[WAC 173-401-605(3), 09/16/02], [RCW 70.94.154, 1/4/01 (S)]

1.26 Compliance Schedules

1.26.1 The permittee shall continue to comply with applicable requirements with which it is currently in compliance. The permittee shall meet applicable requirements on a timely basis that become effective during the permit term.

[WAC 173-401-510(2)(h)(iii)(A), 09/16/02], [WAC 173-401-510(2)(h)(iii)(B), 09/16/02]

1.27 Record Keeping

1.27.1 The permittee shall keep records of required monitoring information that includes, where applicable, the following:

1.27.1.1 The date, place, and time of the sampling or measurements.

1.27.1.2 The date(s) analyses were performed.

1.27.1.3 The company or entity that performed the analysis.

1.27.1.4 The analytical techniques or methods used.

1.27.1.5 The results of such analyses.

1.27.1.6 The operating conditions as existing at the time of sampling or measurement.

[WAC 173-401-615(2)(a), 09/16/02]

1.27.2 The permittee shall keep records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[WAC 173-401-615(2)(b), 09/16/02]

1.27.3 The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings from continuous monitoring instrumentation, and copies of all reports required by this permit.

[WAC 173-401-615(2)(c), 09/16/02]

1.27.4 All required recordkeeping shall be available to Ecology in accordance with Standard Condition 1.6.

[WAC 173-401-630(2)(b), 09/16/02], [40 CFR 60.7(b), 60.7(f), 07/01/02]

1.28 General Obligation Nothing in this permit shall alter or affect the following:

1.28.1 The provisions of section 303 of the FCAA (emergency orders), including the authority of EPA under that section.

1.28.2 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.

1.28.3 The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA.

1.28.4 The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA.

1.28.5 The ability of Ecology to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in chapter 252, Laws of 1993.

[WAC 173-401-640(4), 09/16/02]

1.29 Permit Renewal and Expiration This permit is issued for a fixed term of 5 years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application (as outlined in WAC 173-401-510) is submitted at least 12 months, but no greater than 18 months prior to the date of permit expiration. *A complete renewal application is due no later than July 31, 2011.* Upon receipt of a timely and complete application for renewal, this source may continue to operate subject to final action by Ecology on the renewal application. This allowance shall cease to apply if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by Ecology, any additional information identified as being needed to process the application. The application shall be sent to Ecology at the address included in this permit.

[WAC 173-401-610; 173-401-710, 09/16/02]

1.30 Demolition and Renovation (asbestos) Prior to, during and after conducting any activity to which 40 CFR 61, Subpart M – National Emission Standard for Asbestos, applies, the permittee shall comply with the requirements of that rule. Such activities include notification, demolition, renovation, asbestos stripping or removal, installing or reinstalling insulation, manufacturing of fabricating certain items, spraying of certain materials, constructing roadways of certain materials, or disposal.

[40 CFR 61, Subpart M, 07/01/02], [WAC 173-400-075(1), 1/10/05 (S)]

2. APPLICABLE REQUIREMENTS

Until this permit expires, is modified or revoked, this permittee is authorized to operate the processes outlined in Sections 2.1 through 2.13. These processes are subject to the conditions included in Sections 2.1, through 2.13, to the MRRR's listed in Section 3. Monitoring, Recordkeeping, and Reporting Requirements, and to other terms and conditions specified in this permit.

The column entitled **Description** in each table contains only a summary/paraphrase of the condition, emission standard or work practice. The condition, emission standard, or work practice itself is the enforceable requirement and should be referenced for actual language.

Testing Requirements
Although there are many conditions with no on-going testing requirements, Ecology retains the authority to conduct or require that testing be conducted at the facility with respect to these conditions per WAC 173-400-105(4). Identification of the appropriate test method is necessary to make emission limits fully enforceable. Where the underlying applicable requirement does not specify the test method, Ecology has done so in this permit.

[WAC 173-401-615(1)(a)], [WAC 173-401-630(1)], [WAC 173-400-105(4)]

2.1 Section #1, Facility Wide

This section is applicable and enforceable with respect to all significant emission units source wide, including those emission units in Sections 2.2 through 2.14. Monitoring, recordkeeping and reporting requirements in this section do not apply to insignificant emission units. Condition numbers that are denoted with an asterisk indicate that streamlining of a less stringent requirement has taken place and is described in section 12.0 of the Statement of Basis.

TABLE 2.1

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.1.1	WAC 173-400-040(1), (1)(a), and (1)(b) 8/20/93	F	Visible emissions shall not exceed 20% opacity for more than 3 minutes in any one hour	RM 9	4M
	WAC 173-400-040(1), (1)(a), and (1)(b) 1/10/05	S			
2.1.2	WAC 173-400-060 8/20/93	F	General process units are required to meet all applicable provisions of WAC 173-400-040 and emissions of particulate material from any operation shall not exceed 0.1 grain/dscf of exhaust gas	RM 5	4M
	WAC 173-400-060 1/10/05	S			

— Facility Wide, Continued —					
2.1.3	WAC 173-400-040(2) 1/10/05	S	Particulate matter shall not be deposited beyond the property in sufficient quantity to interfere unreasonably with the use and enjoyment of other's property	None	**3M**
2.1.4	WAC 173-400-040(3)(a), (8)(a) 8/20/93 WAC 173-400-040(3)(a), (8)(a) 1/10/05	F S	The source shall perform maintenance to minimize emissions and take reasonable precautions to prevent fugitive dust from becoming airborne	RM 9 RM 22	**3M**
2.1.5	WAC 173-400-040(3(a), (8)(a) 1/10/05	S	Fugitive dust control measures shall be taken to prevent fugitive emissions	RM 9 RM 22	**5M**
2.1.6	WAC 173-400-040(4) 1/10/05	S	Any producer of an odor which may unreasonably interfere with any other property owner's use and enjoyment of his property must reduce these odors to a reasonable minimum	None	**3M**
2.1.7	WAC 173-400-040(5) 8/20/93 WAC 173-400-040(5) 1/10/05	F S	No person shall 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	None	**3M**
2.1.8	WAC 173-400-040(7) 8/20/93 WAC 173-400-040(7) 1/10/05 40 CFR 60.12	F F 亦	No person shall conceal or mask an emission of an air contaminant	None	**1M**

— Facility Wide, continued —					
Condition Number	**Condition, Emission Standard, or Work Practice**	**Enforceability** (Federal & State = F) (State Only = S)	**Description**	**Testing**	**MRRR Reference**
2.1.9	WAC 173-400-200(2) 8/20/93 WAC 173-400-200(2) 1/10/05	F S	No source may use dispersion techniques or excess stack height to meet ambient air quality standards or PSD increment limitations	None	**1M**
2.1.10	WAC 173-400-205 8/20/93 WAC 173-400-205 1/10/05	F S	Varying the rate of emission of a pollutant according to atmospheric conditions is prohibited, except as directed according to air pollution episode regulations	None	**1M**
2.1.11	RCW 70.94.040 1/4/01	S	Causing air pollution in violation of Chapter 70.94 RCW is unlawful	None	**1M**
2.1.12	Order No. DE 95AQ-E148 Issued 9/27/95 Approval Condition 5.7 Order No. DE 98AQ-E124 Issued 8/7/98 Approval Condition 11.6 Chapter 173-425 WAC – Restriction on Open Burning	F F F F	Open Burning is subject to restrictions	None	**2M**
2.1.13	WAC 173-400-040, 1st ¶ 8/20/93 WAC 173-400-040, 1st ¶ 1/10/05 (RCW 70.94.154(1))	F S	All emissions units are required to use RACT	None	**2M**

2.2 Section #2, College Avenue Steam Plant Boilers #1 and #2

TABLE 2.2

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.2.1	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 3.4	F	Opacity shall be ≤ 10% averaged over a six (6) minute period	RM 9	**4M**
2.2.2	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.1	F	No visible emissions shall be allowed beyond the property line or any fence around the College Avenue Steam Plant	RM 9 RM 22	**6M**
2.2.3	Order No. 01AQER-3336 Issued 11/7/01 Approval Conditions 2.2, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 3.1 40 CFR 60.8(a), (b), (c), (d), (f), 07/01/02	F F	NO_X emissions shall not exceed 20 ppmv (parts per million by volume) @ 3% O_2, dry basis	RM 7E	**7M, 9M**
2.2.4	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 3.2	F	CO emissions shall not exceed 50 ppmv @ 3% O_2, dry basis	RM 10	**7M, 9M**
2.2.5	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 3.3	F	VOC emissions shall not exceed 10 ppmv @ 3% O_2, dry basis	RM 25	**7M, 9M**

—College Avenue Steam Plant, cont.—					
2.2.6	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 3.5	F	PM emissions shall not exceed 0.005 gr/dscf @ 3% O_2, filterable + condensable portions	RM 5 and 40 CFR 51, Appendix M RM 202	**7M, 9M**
2.2.7	Order No. 01AQER-3336 Issued 11/7/01 Approval Conditions 1.1, 6.1, 6.2, 6.3, 6.4, 7.1, 7.2, 7.3	F	Combined annual fuel consumption for boilers #1 and #2 shall be ≤ 1,033.8 MM cubic feet of natural gas	None	**10M**
2.2.8	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 1.2	F	Fuel consumption limit shall not be exceeded without revised NOC order	None	**10M**
2.2.9	Order No. 01AQER-3336 Issued 11/7/01 Section 3 BACT and Section 4 T-BACT 40 CFR 60.11(d), 07/01/02	F F	Good burner design, proper combustion control and effective burner maintenance is required – at all times, the units and all associated equipment shall be operated and maintained to minimize air emissions	None	**5M**
2.2.10	Order No. 01AQER-3336 Issued 11/7/01 Section 3 BACT and Section 4 T-BACT	F	Exclusive combustion of natural gas is required	None	**2M**
2.2.11	Order No. 01AQER-3336 Issued 11/7/01 Section 3 BACT and Section 4 T-BACT	F	Flue gas recirculation and the use of Low-NO_X burners is required	None	**5M**
2.2.12	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.5	F	All equipment shall be operated in a manner consistent with information included in NOC application and O&M Manual	None	**5M**

—College Avenue Steam Plant, cont.—					
2.2.13	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.4	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the boilers	None	**2M**
2.2.14	Order No. 01AQER-3336 Issued 11/7/01 Approval Conditions 4 and 8.5	F	O&M shall be followed and kept updated	None	**11M**
2.2.15	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.2	F	Order No. 01AQER-3336 becomes void if operation is discontinued for 18 months	None	**7M**
2.2.16	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.6 40 CFR 60.7(a)(4), 07/01/02	F F	Any modification to the boilers or their operating procedures inconsistent with the NOC application shall be submitted to Ecology 60 days before such modification	None	**2M**

2.3 Section #3, Grimes Way Steam Plant

TABLE 2.3

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.3.1	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Conditions 3.2, 3.3.3, 3.4.2	F	Opacity from each emission unit shall be ≤ 10% averaged over a six (6) minute period	RM 9	**4M, 13M**
2.3.2	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 8.1	F	No visible emissions shall be allowed beyond the property line or any perimeter fence around the Grimes Way Steam Plant.	RM 9 RM 22	**6M**

—Grimes Way Steam Plant, cont.—					
2.3.3	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Conditions 3.1, 3.3, 3.3.1, 3.4, 3.4.1	F	NO_X emissions shall not exceed the following (7% O_2, 3-run average): Boilers (3) 9.3 ppmdv (gas) 1.418 lb/hr (gas) 58.2 ppmdv (#2 oil) 9.046 lb/hr (#2 oil) 1100 RICE (2) 205 ppmdv (gas) 3.974 lb/hr (gas) 1750 RICE (1) 1600 ppmdv (#2 oil) 43.07 lb/hr (#2 oil)	RM 7E	**7M, 13M**
2.3.4	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 3.1	F	CO emissions shall not exceed the following (7% O_2, 3-run average): Boilers (3) 14.0 ppmdv (gas) 1.310 lb/hr (gas) 73.8 ppmdv (#2 oil) 6.973 lb/hr (#2 oil) 1100 RICE (2) 69.4 ppmdv (gas) 0.819 lb/hr (gas) 1750 RICE (1) 79.0 ppmdv (#2 oil) 1.291 lb/hr (#2 oil)	RM 10	**7M, 13M**

—Grimes Way Steam Plant, cont.—					
2.3.5	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 3.1	F	VOC emissions shall not exceed the following (7% O_2, 3-run average, as propane): Boilers (3) 3.2 ppmdv (gas) 0.542 lb/hr (gas) 3.6 ppmdv (#2 oil) 0.518 lb/hr (#2 oil) 1100 RICE (2) 9.1 ppmdv (gas) 0.170 lb/hr (gas) 1750 RICE (1) 6.0 ppmdv (#2 oil) 0.153 lb/hr (#2 oil)	RM 25A (boilers)and RM18 (RICE) (reported as propane)	**7M, 13M**
2.3.6	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Conditions 3.1, 3.3.4	F	PM-10 emissions shall not exceed the following (7% O_2, 3-run average): Boilers (3) 0.004 gr/dscf (gas) 0.734 lb/hr (gas) 0.016 gr/dscf (#2 oil) 2.827 lb/hr (#2 oil) 1100 RICE (2) 0.017 gr/dscf (gas) 0.404 lb/hr (gas) 1750 RICE (1) 0.04 gr/dscf (#2 oil) 1.291 lb/hr (#2 oil)	RM 5 and 40 CFR 51, Appendix M RM 202	**7M, 13M**

—Grimes Way Steam Plant, cont.—					
2.3.7	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 3.1, 3.3.2	F	Formaldehyde emissions shall not exceed the following (7% O_2, 3-run average): 1100 RICE (2) 4.33 ppmdv (gas) 0.05 lb/hr (gas) 1750 RICE (1) 1.50 ppmdv (#2 oil) 0.025 lb/hr (#2 oil)	40 CFR 63, Appendix A, RM 316	**7M, 13M**
2.3.8	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.6	F	All #2 distillate oil shall have a sulfur content of less than 0.05 weight percent as sulfur		**12M**
2.3.9	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.2, 6.1, 6.2, 6.3, 6.4, 6.5, 7.3	F	Total annual natural gas usage by all emission units at the Grimes Way Steam Plant shall not exceed 2,645 MMscf		**12M**
2.3.10	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.3, 6.2, 6.3	F	Total annual #2 distillate oil usage by the following groups of emission units shall not exceed the following limits: Boilers…..5.955 MM gal RICE……0.119 MM gal		**12M**
2.3.11	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.4	F	The permitted maximum annual natural gas consumption shall be reduced 140 scf for every gallon of #2 distillate oil used in the boilers.		**12M**
2.3.12	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.7	F	The three (3) boilers shall not average more than 3,000 hours each per year burning #2 distillate oil as fuel		**12M**

—Grimes Way Steam Plant, cont.—					
2.3.13	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.8	F	The two (2) 1100 RICE generators shall not average more than 5,000 hours each per year of operation		**12M**
2.3.14	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.9	F	The 1750 RICE generator shall not be operated more than 1,000 hours per year	None	**12M**
2.3.15	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.10	F	A request to increase the hours of operation of any of the three (3) RICE generators shall initiate reevaluation of the sections of Order 03AQER-5744 covering the generator(s) as if the unit(s) was/were new source(s) subject to the BACT requirements of WAC 173-400-110	None	**12M**
2.3.16	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 1.5	F	All natural gas used by the Grimes Way Steam Plant shall be from the local utility pipeline		**12M**

—Grimes Way Steam Plant, cont.—					
2.3.17	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Section 3. BACT Section 4. T-BACT	F	The equipment shall utilize the following as BACT and/or T-BACT: Boilers • PM-10 – proper combustion control and burner maintenance • NO_X – ultra low-NO_X burners and flue gas recirculation • CO – burner design and maintenance and proper combustion control • VOC – burner design and maintenance, proper combustion control, and flue gas recirculation RICE Generators • PM-10 – Oxidation catalyst system • NO_X – low-NO_X design configuration • CO – Oxidation catalyst system • VOC – Oxidation catalyst system • TAP's – Oxidation catalyst system		**5M**
2.3.18	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 8.5	F	All equipment shall be operated in a manner consistent with information included in NOC application and O&M Manual	None	**5M, 14M**

—Grimes Way Steam Plant, cont.—					
2.3.19	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 8.4	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the boilers and RICE generators	None	**2M**
2.3.20	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Conditions 4, 4.1, 4.2, 4.3, 4.4, 4.5	F	O&M manual for the boilers and RICE generators shall be developed, followed, and updated	None	**14M**
2.3.21	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Conditions 5, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.2, 7.1	F	Notifications specified in this AOP shall be submitted to Ecology at the address above	None	**12M**
2.3.22	Order No. 03AQER-5744, 1st Amendment Issued 7/30/07 Approval Condition 8.6 40 CFR 60.7(a)(4), 07/01/02	F F	Any modification to the boilers or RICE generators or their operating procedures inconsistent with the NOC application shall be submitted to Ecology 60 days before such modification	None	**2M**

2.4 Section #4, Hospital/Medical/Infectious Waste Incinerator (Incinerator)

TABLE 2.4

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.4.1*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 3.1, 5.1, 5.2, 5.3, 8.6, 9.8	F	Opacity from the incinerator stack shall be no more than 10%, averaged over a six minute period	RM 9	**8M, 15M, 16M**
	40 CFR 60.56c(b)(7), (c)(1), (c)(2), (c), 7/1/02	F			
2.4.2	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 11.1	F	No visible emissions shall be allowed beyond the property line	RM 9	**15M, 16M**
2.4.3*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007. Approval Conditions 2.2, 2.4, 2.5, 2.6, 2.7, 3.2, 7.4, 7.5, 7.6, 10.1, 10.2, 10.7, 10.8, 10.9,	F	PM emissions (front half and back half combined) shall not exceed 0.015 gr/dscf at 7% O_2	RM 1,2,3,4, and 5 and Part 51, App. M Method 202 (back half)	**8M, 16M, 19M, 21M**
	40 CFR 60.56c(b)(3), (4), (5), (6), (c)(2), (f)(1), (6), (h), (j), 7/1/02	F			
2.4.4*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 3.3, 10.1, 10.3	F	CO emissions shall not exceed 40 ppmv dry, at 7% O_2	RM 10	**8M, 16M, 19M, 21M**
	40 CFR 60.56c(b)(8), (c)(2), (f)(2), 7/1/02	F			
2.4.5*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 3.5, 10.1, 10.5	F	HCl emissions shall not exceed 15 ppmv dry, at 7% O_2, and shall not cause any exceedance of the ASIL given in WAC 173-460-160 (7/21/98)	RM 26A	**8M, 16M, 19M, 21M**
	40 CFR 60.56c(b)(10), (c)(2), (f)(4), 7/1/02	F			

—Incinerator, cont.—					
2.4.6*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 3.6	F	SO_2 emissions shall not exceed 55 ppmv dry, at 7% O_2	RM 6C	**7M, 17M, 21M**
2.4.7*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 3.7	F	NO_X emissions shall not exceed 250 ppmv dry, at 7% O_2	RM 7E	**7M, 17M, 21M**
2.4.8*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 2.8, 3.4, 10.1, 10.4, 10.7 40 CFR 60.56c(b)(9), (f)(3), (6), 7/1/02	F F	Dioxins/Furans emissions shall not exceed 0.26 grains per billion dry standard cubic foot at 7% O_2, and shall not cause any exceedance of the ASIL given in WAC 173-460-150 (7/21/98)	RM 23	**8M, 18M, 19M, 21M**
2.4.9*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 3.8, 10.1, 10.7 40 CFR 60.56c(b)(11), (f)(6), 7/1/02	F F	Pb emissions shall not exceed 0.03 grains per 1000 dscf at 7% O_2, and shall not cause any exceedance of the ASIL given in WAC 173-460-150 (7/21/98)	RM 29	**8M, 17M, 19M, 21M**
2.4.10*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 3.9, 10.1, 10.7 40 CFR 60.56c(b)(11), (f)(6), 7/1/02	F F	Cd emissions shall not exceed 0.020 grains per 1000 dscf at 7% O_2, and shall not cause any exceedance of the ASIL given in WAC 173-460-150 (7/21/98)	RM 29	**8M, 17M, 19M, 21M**
2.4.11*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 3.10, 10.1, 10.6, 10.7 40 CFR 60.56c(b)(11), (f)(5), (6), 7/1/02	F F	Hg emissions shall not exceed 0.240 grains per 1000 dscf at 7% O_2, and shall not cause any exceedance of the ASIL given in WAC 173-460-160 (7/21/98)	RM 29	**8M, 17M, 19M, 21M**

—Incinerator, cont.—					
2.4.12	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 3.11, 10.1, 10.7	F	Cr^{+6} emissions shall not cause any exceedance of the ASIL given in WAC 173-460-150 (7/21/98)	RM 29	**8M, 17M, 21M**
2.4.13	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 3.12, 10.1, 10.7	F	Ni emissions shall not cause any exceedance of the ASIL given in WAC 173-460-150 (7/21/98)	RM 29	**8M, 17M, 21M**
2.4.14	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 1.1.3, 1.3, 8.1, 8.2, 8.3, 8.4, 8.5, 8.7, 8.8, 8.9, 8.10, 8.11, 8.12, 8.13, 8.14, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.9, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.17, 9.18	F	Hours of incinerator operation shall be limited to 12 hrs/day and 2,800 hrs/calendar year	None	**15M**
	40 CFR 60.53c(h), 60.57c(a), (b), (d), 60.58c(b)(1), (b)(2)(i), (iii), (viii), (ix), (x), (xi), (xii), (xiii), (xiv), (b)(3), (4), (5), (6), (7), (8), (9), (10), (11), (d), (e), (f), 07/01/02	F			
2.4.15	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 1.1.1	F	Total waste throughput shall not exceed 500 lbs/hour and 635.6 tons/year.	None	**15M**
2.4.16	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 11.5	F	All equipment shall be operated in a manner consistent with information included in NOC application and O&M Manual	None	**5M**

—Incinerator, cont.—					
2.4.17	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 11.4 40 CFR 60.53c(j)	F F	Approval Order, O&M Manual, and all required recordkeeping shall be in the working vicinity and available to employees in direct operation of the Incinerator	None	**2M**
2.4.18	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Conditions 5.4, 6	F	O&M shall be followed and kept updated	None	**20M**
2.4.19	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Issued 08/07/98 Approval Condition 1.4	F	Operational requirements specified for the incineration of medical/infectious waste shall also apply to the incineration of low-level radioactive waste	None	**2M**
2.4.20*	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.11	F	The incinerator shall not be operated without a certified operator in responsible charge on-site during all hours of operation.	None	**15M**
2.4.21	40 CFR 60.53c 7/1/02	F	Initial certification and renewal for operators of the incinerator shall be accomplished in accordance with the guidelines included in 40 CFR 60.53c	None	**2M**
2.4.22	40 CFR 60.53c(i) 7/1/02	F	Permittee shall establish a program for performing annual reviews of required monitoring, recordkeeping and reporting with all operators	None	**15M**
2.4.23	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.17	F	If the bypass stack is used while waste is being incinerated, or if the incinerator or any control equipment malfunction, the incinerator shall be immediately shut down	None	**2M**

			—**Incinerator, cont.**—		
2.4.24	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.14	F	Incinerator ash shall only be transferred from the incinerator to sealable non-combustible/non-melting containers within the enclosed incinerator building followed by disposal at an Ecology approved site	None	**2M**
2.4.25	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.13	F	All waste shall be incinerated under sufficient burning conditions to reduce all combustible material to a form such that no portion of the combustible material is visible in it's non-combusted state	None	**2M**
2.4.26	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.12	F	Waste shall not be charged to the incinerator during periods of startup, shutdown, or malfunction	None	**2M**
2.4.27	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.15	F	The treatment chemicals used with the cooling tower shall be chemicals that are not toxic air pollutants per chapter 173-460 WAC	None	**2M**
2.4.28	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.16	F	The incinerator shall only incinerate waste that has been generated by WSU research or teaching facilities	None	**2M**
2.4.29	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.1 40 CFR 60.56c(d)(2) 07/01/02	F F	The permittee shall ensure that the control equipment is operated within the established range for all operating parameters	None	**2M**

—Incinerator, cont.—					
2.4.30	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 10.10	F	Additional air pollution controls or handling procedures may be required by Ecology in order to control odors if a nuisance is identified in the future	None	**None**
2.4.31	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Section 3 BACT Section 4 T-BACT	F	Emissions controls as described shall be operated and maintained	None	**22M**
2.4.32	Order No. DE 98AQ-E124, 1st Amendment Issued 7/30/2007 Approval Condition 1.3	F	Report any planned modifications to plant or operating procedures to Ecology.	None	**2M**

2.5 Section #5, Animal Feed Preparation Plant

The Animal Feed Preparation Plant and all sources of air emissions associated with the process are subject to those requirements included in Section 1. Standard Conditions, Section 2.1 Section #1 Facility Wide and the Monitoring Recordkeeping and Reporting Requirements in Section 3.

2.6, Section #6, Agronomy Seed Processing Plant

TABLE 2.6

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.6.1	WAC 173-400-040(1), (1)(a), and (1)(b) 8/20/93 WAC 173-400-040(1), (1)(a), and (1)(b) 1/10/05	F S	Visible emissions shall not exceed 20% opacity for more than 3 minutes in any one hour	RM 9	**23M**
2.6.2	WAC 173-400-060 8/20/93 WAC 173-400-060 1/10/05	F S	General process units are required to meet all applicable provisions of WAC 173-400-040 and emissions of particulate material from any operation shall not exceed 0.1 grain/dscf of exhaust gas	RM 5	**23M**

2.7 Section #7, Compost Facility

TABLE 2.7

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.7.1	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.2	F	Opacity shall be less than 10%, averaged over a six minute time period	RM 9	**24M**
2.7.2	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.1	F	No visible emissions shall be allowed beyond the facility property line	RM 9	**24M**
2.7.3	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.3	F	Fugitive dust shall be minimized by use of water or other abatement technique	RM 9	**24M**
2.7.4	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.3	F	Fugitive dust shall not cross the property line	RM 9	**24M**

—Compost Facility, cont.—					
2.7.5	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.1, 4.2	F	Odors from the facility shall not be detectable beyond the facility property line	None	**25M**
2.7.6	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.1	F	Recognized good practices as described in the most current Whitman County Dept. of Public Health permit and WSU Compost Facility Operating Procedures shall be followed to minimize odors	None	**25M**
2.7.7	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Conditions 1, 3	F	Permittee shall maintain records of operations and maintenance for a period of five (5) years	None	**2M**
2.7.8	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 1	F	Increasing composting acreage or changing types of composting materials shall be reported to Ecology (current areas approximately 4.4 acres)	None	**2M**
2.7.9	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.2	F	Order No. DE 95AQ-E148 becomes void if operation is discontinued for 18 months	None	**7M**
2.7.10	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.4	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the Compost Facility	None	**2M**
2.7.11	Order No. DE 95AQ-E148 Issued 09/27/95 Section 3, BACT Section 4, T-BACT	F	The permittee shall follow the provisions in most current Whitman County Dept. of Public Health permit and WSU Compost Facility Operating Procedures to minimize odors	None	**2M**

—Compost Facility, cont.—					
2.7.12	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.5	F	Operation of equipment shall be conducted in a manner consistent with information included in NOC application and O&M Manual	None	**5M**
2.7.13	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 3	F	O&M shall be followed and kept updated	None	**26M**

3. Monitoring, Recordkeeping, and Reporting Requirements (MRRR)

[WAC 173-401-630(1)], [WAC 173-401-615(1)(b), (c)]

GENERAL

1M. The permittee shall conscientiously monitor site operations and promptly report any deviations.
[WAC 173-401-615(1)(b), 09/16/02]

2M. At least once every twelve (12) months, the permittee shall review actual operations and any other relevant information to determine if facility operations are being conducted in accordance with each specific requirement.

The permittee shall maintain records that include the date such reviews occur, the name of the person conducting the review, the information reviewed, summary information on any deviations identified and date and time when corrective action was initiated and completed.

[WAC 173-401-615(1)(b), 09/16/02]

3M. The permittee shall maintain records of all complaints received. Ecology shall be notified within three (3) working days of receipt of any complaints. The permittee shall address and respond to all complaints within three (3) working days of receipt of the complaint. The recordkeeping shall include the following with regard to the complaint and the associated deviation:

1) A record of all written complaints, complaints received by telephone or complaints received in person,
2) Time, date, and duration of the deviation,
3) Cause of the deviation,
4) Estimate of excess emissions and magnitude of deviation, and
5) Corrective action taken, and the results of such action.

[WAC 173-401-615(1)(b), 09/16/02]

4M. The permittee shall conduct monitoring in accordance with the following.

1) At least once per month, as well as any time excess visible emissions are observed, the permittee shall perform surveys for the purpose of observing all emission units that are sources of potential visible and/or PM emissions to which standards apply facility-wide as well as those emission units and activities for which this MRRR is specified in the "MRRR Reference" column in the above tables. Insignificant emissions units are not subject to this MRRR requirement.

Each survey shall be performed as follows:

a) The survey shall be conducted from a location with a clear view of the emission point and where the sun is as close as possible to being directly behind the observer. The observer's location shall be at least 15 feet but not more that ¼ mile from the source.

b) The survey shall be conducted while the relevant emission unit as well as the associated facility process is in normal operation.

c) The observer will be educated in the general procedures for determining the presence of visible emissions (i.e. effects on the visibility of emissions caused by background contrast, position of the sun and amount of ambient lighting, observer position relative to source and sun, and the presence of uncombined water).

d) The survey shall consist of a minimum of four (4) consecutive 15-second visual observations of each stack or emission point to identify whether the emission point under observation exhibits visible emissions. The observer shall look away from the emission point under observation between each observation in order to rest their eyes.

e) The permittee shall develop a standard form to be used for the visible emissions surveys described above. A copy of the developed form shall be provided to Ecology.

2) Upon completion of the visual survey, the permittee's corrective actions shall be governed by the following:

a) If visible emissions are observed to be zero, no corrective action is required.

b) If visible emissions are observed, the following actions shall be taken, as described below:

i) As soon as possible, but no later than 24 hours after visible emissions are observed, the permittee shall verify that all equipment which may affect emissions is performing its normal, designed function and being operated according to standard procedures. If any equipment is not performing as described, corrective action shall be initiated within 24 hours after the original observation of visible emissions. The corrective action taken shall return the equipment to normal operation as soon as possible and be designed to prevent the likely recurrence of the cause of the deviation.

a. If the corrective action taken results in a return to conditions under which visible emissions are not observable via the method outlined in 1) above within the 24 hour window after visible emissions were originally observed, no further corrective action is required.

b. If, after corrective action is taken, visible emissions are still observed, or if the necessary corrective action requires a period of time beyond the 24 hour window, the permittee shall perform ii):

ii) The permittee shall perform, or have performed, RM 9 on the source of the emissions. The RM 9 test shall be conducted only by personnel certified to perform RM 9 in accordance with EPA guidelines. The test shall occur as soon as possible, but no later than forty-eight (48) hours after the original observation of visible emissions.

a. If the visible emissions as determined by RM 9 do not exceed the applicable standard, no further corrective action is required.

b. If a violation of any applicable opacity standard is documented, the permittee shall perform iii):

iii) If a violation of any applicable opacity standard is documented, appropriate and timely action shall be initiated (as soon as possible, but no later than 24 hours after discovery of the violation via RM 9 test) to identify and correct the problem causing the opacity. The corrective action taken shall return the equipment to normal operation as soon as possible and be designed to prevent the likely recurrence of the cause of the violation. Once corrective action has been taken to solve the problem, the permittee shall perform, or have performed, RM 9 on the source of emissions in order to demonstrate re-establishment of normal operation. Taking corrective action does not relieve the permittee from complying with the underlying condition, emission standard or work practice, nor does it relieve the permittee from the obligation to report any permit deviations as required in Standard Condition 1.13.1

3) The permittee shall conduct recordkeeping in accordance with the following.

a) The permittee shall maintain records of all RM 9 tests performed for a period of five (5) years. This recordkeeping requirement shall be satisfied by keeping the original RM 9 test form.

b) The permittee shall maintain a list of site personnel who have been educated as described in 1), c) above, as well as a list of site personnel who are currently certified to perform RM 9.

c) Recordkeeping with regard to each deviation shall include the following:

i) Time, date, and duration of the deviation,

ii) Cause of the deviation,

iii) Estimate of excess emissions and magnitude of deviation, and

iv) Corrective action taken, and the results of such action.

4) The permittee shall conduct reporting in accordance with the following.

a) Copies of all RM 9 test forms which either document a deviation or re-establishment of normal operation following a deviation shall be submitted to Ecology as part of the monthly deviation reports as required by Standard Condition 1.13.1. In addition to the RM 9 form, reporting shall also include copies of the visible emission observation form(s) as well as the information required under recordkeeping under 3), c) above. The permittee is not required to submit RM 9 forms for tests conducted under 2), b), ii) above, which do not document a deviation or violation.

b) Upon discovery that the monitoring as designed is insufficient to provide indications of all deviations, the permittee shall notify Ecology of the monitoring deficiency.

[WAC 173-401-615(1)(b), & (3), 09/16/02], [WAC 173-401-630(1), 09/16/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 3.4.2]

5M. At least once every twelve (12) months, the permittee shall perform a complete review of the Operation and Maintenance manual and the original Notice of Construction Order and associated application materials submitted to Ecology as appropriate for each affected emission unit and associated equipment. The purpose of this review shall be to verify that the emission unit and associated equipment is being operated in accordance with the documents stated above.

At least once every six (6) months, the permittee shall perform a review of the operation and maintenance parameters/practices as included in the Operation and Maintenance manual for each affected emission unit and associated equipment.

The permittee shall maintain records that include the date such reviews occur, the information reviewed as well as the name of the person conducting the review. Upon discovery that any equipment is being operated in a manner inconsistent with any of the above mentioned documents, the permittee shall initiate

corrective action within two (2) business days. All such discoveries shall be reported to Ecology as required by Standard Condition 1.13.1 of this permit.

[WAC 173-401-615(1)(b), 09/16/02]

6M. At least once per month, as well as any time visible emissions are observed, the permittee shall perform brief, walk-around surveys for the purpose of determining the presence of visible emissions crossing the facility site property or facility boundary. The surveys shall be conducted while the facility is in operation, and shall include observation for any visible emissions, including fugitive emissions, regardless of the source. Recordkeeping shall include information for each survey indicating the date the survey was performed, the name of the person performing the survey, the weather at the time of the survey, and an indication of whether any visible emissions were observed to cross the property boundary. Reporting shall consist of monthly reporting of deviations as described in Standard Condition 1.13.1, as well as annual certification of compliance as described in Standard Condition 1.13.3. Any monthly deviation reports documenting visible emissions observed to cross the property boundary shall include the time, date and duration of the deviation, a description of the cause of the visible emissions, the corrective action taken, and the results of the corrective action.

[WAC 173-401-615(1)(b), 09/16/02]

7M. Semi-Annually – As part of the semi-annual monitoring report, the permittee shall submit parametric monitoring data for parameters that are used to calculate emissions. This may include actual fuel usage, actual hours of operation, actual steam production, etc.

Annually – As part of the annual emissions inventory submittal required under Standard Condition 1.13.4, emissions shall be quantified by multiplying the appropriate recorded operating parameter (fuel usage, hours of operation, steam production, etc..) by an emission factor derived from the most recent source testing. If test-derived factors are unavailable, use the most recent emission factor published by USEPA. In the event that the most recent published data provides a range of emission factors, the calculation shall be performed using the most conservative factor within the provided range. Use of less conservative emission factors may be used only upon written approval by Ecology. In the event that USEPA emission factors are either inappropriate or unavailable, the permittee shall propose an alternative emission factor (or emission estimation method) that may be used upon written approval by Ecology.

Calculations should be adjusted for percent oxygen using 40 CFR 60 Appendix A, Reference Method 19. Pollutant emission rate and concentration must be expressed in the same units as the limit(s) specified in the applicable requirement(s). The emission inventory submittal shall include a statement clearly indicating the emission factor that is being used, justification for the use of the emission factor, clear identification of all operating parameters used in the calculational method, and an example of the calculational method used.

[WAC 173-401-615(1)(b), 09/16/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Conditions 3.4, 3.4.1, 3.4.2]

8M. Incinerator source testing as referenced shall be conducted as follows:

- Opacity – by December 31, 2007 and annually thereafter
- PM, CO, and HCL – by December 31, 2007. If the initial test demonstrates compliance, WSU may forego testing for the subsequent two years. If any test indicates noncompliance with an emission limit, testing shall be conducted annually for at least 3 years. In no case shall more than 36 months elapse between source tests.
- Dioxins/Furans, NO_x, Pb, Cd, Hg, Cr^{+6}, Ni – whenever PM, CO or HCL emission limits are exceeded during source testing, or as required by Ecology.

Semi-Annually – As part of the semi-annual monitoring report, the permittee shall submit parametric monitoring data for parameters that are used to calculate emissions. This may include actual fuel usage, actual hours of operation, material throughput, production, etc.

Annually – As part of the annual emissions inventory submittal required under Standard Condition 1.13. 4, emissions shall be quantified by multiplying the appropriate recorded operating parameter (fuel usage, hours of operation, etc..) by an emission factor derived from the most recent source testing.

Calculations should be adjusted for percent oxygen using 40 CFR 60 Appendix A, Reference Method 19. Pollutant emission rate and concentration must be expressed in the same units as the limit(s) specified in the applicable requirement(s). The emission inventory submittal shall include a statement clearly indicating the emission factor that is being used, justification for the use of the emission factor, clear identification of all operating parameters used in the calculational method, and an example of the calculational method used.

[WAC 173-401-615(1)(b), 09/16/02]

COLLEGE AVENUE STEAM PLANT NATURAL GAS FIRED BOILERS #1 AND #2

9M. The following conditions shall apply to the testing required for College Avenue Steam Plant boilers #1 and #2.

1) Alternative Testing – The testing specified shall be conducted unless alternate or equivalent tests are requested in writing by the permittee and approved of by Ecology.

   [Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.2], [40 CFR 60.8(b), 7/1/02]

2) Number of Test Runs – Unless specifically noted below, testing of each boiler shall consist of three separate runs of at least 60-minutes each.

   [Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.4], [40 CFR 60.8(f), 7/1/02]

3) Throughput during Testing – During testing, each boiler shall be operated at a minimum of ninety percent (90%) of rated capacity (90% of 99.4 MMBTU/hour = 89.5 MMBTU/hour). Operation of each boiler during testing at less than ninety percent (90%) may be proposed but will result in an operational restriction that will be amended to this Approval Order.

   [Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.5], [40 CFR 60.8(c), 7/1/02]

4) Notification of Performance Testing – The permittee shall provide written notification to Ecology of their intent to conduct any performance test at least 30-days before such test is scheduled to begin. A written test plan, including a description of the method(s) proposed, shall be submitted for approval to Ecology at least thirty (30) calendar days prior to the start of any performance test.

   [Order No. 01AQER-3336, Issued 11/7/01, Approval Conditions 2.6, 2.7], [40 CFR 60.8(d), 7/1/02]

5) Notification of Inability to Conduct Performance Test – If the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least 24-hours before the test.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.8], [40 CFR 60.8(d), 07/01/02]

6) Boiler Operator during Testing – The boilers shall be operated and controlled by normal plant operators during the period when the performance testers are on-site to conduct testing and during actual testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.9], [40 CFR 60.8(c), 07/01/02]

7) Periodic Performance Testing – Following initial boiler compliance testing, subsequent performance testing for NOx, CO and VOC while combusting natural gas shall be conducted on the boiler once every five calendar years unless an alternate frequency is requested in writing by the permittee and approved of by Ecology. Ecology may require performance testing for PM in the future if visible emissions from the stack exceed the 10% opacity limit.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.10]

8) Performance Testing Results – The results of all initial performance and any subsequent periodic performance testing shall be sent to the Ecology no later than 60-days following such testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.11], [40 CFR 60.8(a), 7/1/02]

9) Opacity readings per RM 9 will be required if any visible emission except water vapor are observed from the boiler exhaust stack during source testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 3]

10M. The following monitoring, recordkeeping, and reporting requirements shall apply specifically to natural gas fired College Avenue Steam Plant boilers #1 and #2.

1) The permittee shall conduct monitoring and associated recordkeeping in accordance with the following.

a) The operation of each boiler shall be monitored for any malfunction. In the event of a malfunction, the permittee shall record the date, time, duration, cause, and any associated corrective action taken with respect to the malfunction, in addition to clearly identifying the boiler.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.1], [40 CFR 60.7(b), 07/01/02]

b) The permittee shall monitor and record boiler fuel consumption for each boiler on a calendar month basis as well as a daily basis. This recordkeeping shall be accomplished via fuel billing statements and/or meter readings.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.2], [40 CFR 60.48c(g), 07/01/02]

c) The permittee shall maintain a file of all source testing results, including initial source testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.3], [40 CFR 60.7(f), 07/01/02]

d) The permittee shall maintain an O&M manual as well as all maintenance records.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.4]

2) The permittee shall conduct reporting in accordance with the following. All reporting shall be performed in accordance with Standard Condition 1.13.

a) In the event of any malfunction, the permittee shall submit to Ecology a report that clearly identifies the boiler and includes the date, time, duration, cause, and any associated corrective action taken with respect to the malfunction.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 7.1], [WAC 173-401-630(1), 09/16/02]

b) Total natural gas consumption by each boiler shall be reported to Ecology once every three (3) months following startup of the boilers. The report shall state the total natural gas usage for each boiler during each of the preceding three (3) months, and shall be submitted no later than thirty (30) days following the end of the three month period being reported.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 7.2]

c) Estimated annual emissions of PM, SO_X, NO_X, CO, VOC and total TAP's from the boilers for the previous calendar year shall be submitted to Ecology as part of the annual emissions inventory.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 7.3]

11M. The O&M manual(s) for equipment that has the potential to affect emissions associated with the natural gas fired College Avenue Steam Plant boilers #1 and #2 shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual(s) must include the following:

1) Normal operating parameters,
2) Instrumentation necessary to monitor operating parameters,
3) A maintenance schedule,
4) A summary and description of the monitoring and recordkeeping requirements and procedures.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Conditions 4 and 8.5]

GRIMES WAY STEAM PLANT

12M. The following conditions shall apply to the monitoring, recordkeeping, and reporting required for emission units located at the Grimes Way Steam Plant.

1) The permittee shall conduct monitoring in accordance with the following.

   a) Hours of operation of each emission unit including hours operating on #2 distillate oil.

2) The following recordkeeping specific to the emission units at the Grimes Way Steam Plant shall be retained for a period of five (5) years and kept in an organized, legible manner readily available for inspection by Ecology personnel.

   a) Fuel usage records retained shall include total usage of each type of fuel by emission unit per calendar month as well as overall facility totals for each fuel by calendar year. This recordkeeping shall be accomplished via fuel bills and/or meter readings. All #2 distillate oil purchase records shall specify the fuel sulfur content or otherwise identify the fuel as low sulfur diesel.

   b) Annual total hours of operation of each emission unit including hours operating on #2 distillate oil.

   c) Occurrence and duration of any malfunction in the operation of each boiler and RICE generator. The record shall include identification of the boiler and/or RICE generator, date, time, duration and/or cause, as applicable. This requirement may be combined with actions taken to comply with the requirements of standard condition 1.13.1.

   d) Copies of all reports containing source testing results. A copy of the O&M manual and maintenance records.

   e) A copy of the O&M manual and maintenance records.

3) Reporting specific to the emission units at the Grimes Way Steam Plant shall be performed in accordance with the following.

   a) Occurrence and duration of any malfunction per the recordkeeping requirement above shall be sent to Ecology. This notification shall comply with the requirements of standard condition 1.13.1.

   b) Fuel consumption by type for each boiler and RICE generator shall be submitted to Ecology quarterly (every three months). Three month periods shall commence following completion of the operational testing for the boilers and RICE generators. Each report shall be due no later than thirty (30) days following the end of the three month period, and shall be certified by the responsible official or designated alternate.

   [Order No. 03AQER-5744, Issued 09/12/03, Approval Conditions 5, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.2, 6.1, 6.2, 6.3, 6.4, 6.5, 7.1, 7.3], [WAC 173-401-615(1)(b), 09/16/02]

13M. The following conditions shall apply to the testing required for emission units at the Grimes Way Steam Plant:

1) Following initial performance testing, each emission unit shall be tested annually for NO_X, CO, and VOC. Once a unit has passed for three (3) consecutive years, the testing frequency may be reduced to once every five (5) years.

2) Following initial performance testing, each RICE generator shall be tested for formaldehyde at least once every five (5) years.

3) During testing, opacity shall be measured at least once during each test run by certified personnel using EPA method 9. Separate RM 9 forms shall be completed for each test run, and copies shall be included in the test report.

4) Initial performance testing for PM-10 is not required. Testing for PM-10 or other pollutants of concern may be required by Ecology in the future.

5) The specified testing shall be conducted unless alternate or equivalent test methods are requested in writing by the permittee and approved of by Ecology.

6) The permittee shall provide testable emission points, sampling ports, safe access to sampling points and ports, and utilities for sampling and testing.

7) Unless specifically noted otherwise in this Order, testing of each piece of energy equipment shall consist of three separate runs of at least sixty (60) minutes each. Boilers shall be tested while operating on natural gas and separately while operating on #2 distillate oil.

8) During testing, each piece of energy equipment shall be operated at a minimum of ninety percent (90%) of rated capacity (Example: 90% of 98.495 MMBtu/hour = 88.65 MMBtu/hour). Operation of energy equipment during testing at less than ninety percent (90%) may be proposed, but will result in an operation restriction that will be amended to this approval order.

9) The permittee shall provide written notification to Ecology of their intent to conduct any performance test at least thirty (30) days before such test is scheduled to begin.

10) A written test plan, including a description of the method(s) proposed, shall be submitted for approval to Ecology at least thirty (30) calendar days prior to the start of any performance test.

11) If the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least twenty-four (24) hours before the test at the address provided above or via telephone or email.

12) The energy equipment shall be operated and controlled by normal steam plant operators during the period when the performance testing are on site to conduct testing and during actual testing.

13) Following initial performance testing, subsequent performance testing while combusting the approved fuels shall be conducted on the energy equipment annually until the equipment has passed for three (3) consecutive years then thereafter once every five (5) calendar years unless an alternate frequency is requested in writing by the permittee and approved of by Ecology.

14) The results of all initial performance and all other periodic performance testing shall be sent to Ecology at the above address. One copy of the completed test report shall be submitted no later than sixty (60) days after the last day of testing.

[Order No. 03AQER-5744, Issued September 12, 2003, Approval Conditions 2.1, 2.2, 2.2.1, 2.2.1.1, 2.2.1.2, 2.2.1.3, 2.2.1.4, 2.2.1.5, 2.2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 3.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4], [40 CFR 60.8(a), (b), (c), (d), (e), (f), 07/01/03], [WAC 173-401-615(1)(b), 09/16/02], [WAC 173-400-105(4), 1/10/05]

14M. A site specific O&M manual for the boilers and RICE generators shall be developed and followed. Manufacturer's instructions may be referenced. Emissions that result from failure to follow the requirements of the O&M manual or manufacturer's instructions may be considered proof that the boilers and RICE generators were not properly maintained and operated. The O&M manual shall be updated to reflect any modifications of the equipment or its operating procedures. The O&M manual shall at a minimum include a description of:

1) Normal operating parameters,
2) Instrumentation to monitor operating parameters,
3) A maintenance schedule,
4) Monitoring and record keeping requirements, and
5) Monitoring procedures.

[Order No. 03AQER-5744, Issued 09/12/03, Approval Conditions 4, 4.1, 4.2, 4.3, 4.4, 4.5, 8.5]

INCINERATOR

15M. The following conditions shall apply to the monitoring, recordkeeping, and reporting required for the incinerator.

1) The permittee shall conduct monitoring in accordance with the following.

a) Continuous Emissions Monitoring System (CEMS) to measure opacity, which meets the approval requirements of the Environmental Protection Agency shall remain installed. The CEMS opacity meter shall conform to all provisions of Title 40, CFR Part 60, Appendix B, Performance Specification 1 - Specifications and Test Procedures for Opacity Continuous Emissions Monitoring Systems in Stationary Sources. The CEMS opacity meter shall be operated using quality assurance procedures conforming to EPA 340/1-86-010, Recommended Quality Assurance Procedures of Opacity CEMS. The CEMS shall be installed and operating correctly prior to any source testing.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 3.1, 5.1, 5.2, 5.3, 8.6]

b) WSU shall install, calibrate to manufacturers' specifications, maintain, and operate devices or establish methods, for continuously monitoring and recording as noted, the following information and operating parameters. The monitoring and recordkeeping outlined shall take place at all times except during startup and shutdown.

i) Waste charge rate and type shall be recorded once per hour. The limit as specified shall not be exceeded without a revised NOC approval order issued by Ecology.

ii) Total waste throughput for the previous twelve (12) month period shall be recorded. The limit as specified shall not be exceeded without a revised NOC approval order issued by Ecology.

iii) Maximum flue gas temperature (record once per minute).

iv) Minimum secondary combustion chamber temperature (record once per minute).

v) Minimum horsepower or amperage of the scrubber liquor pump (record once per minute).

vi) Minimum pressure drop across the wet scrubber (record once per minute).

vii) Minimum liquor flow rate (record once per minute).

viii) Minimum scrubber liquor pH (record once per minute).

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 1.2, 8.1, 8.8], [40 CFR 60.53c(h)(8), 60.57c(a), 60.58c(b)(1), (2)(viii), (ix), (x), (xi), (xii), (xiii), (xiv), 7/1/02]

c) WSU shall install, calibrate to manufacturers' specifications, maintain, and operate a device or method for measuring the use of the bypass stack. The documentation shall include the date, time and duration of all instances when the bypass stack is used.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.7], [40 CFR 60.57c(b), 07/01/02]

2) The following recordkeeping specific to the incinerator shall be retained for a period of five (5) years and kept in an organized, legible manner readily available for inspection by Ecology personnel.

[40 CFR 60.53c(h)(9), 7/1/02], [40 CFR 60.58c(f), 07/01/02]

a) Opacity measurement information as determined by CEMS.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.6], [40 CFR 60.58c(b)(2)(i), 07/01/02]

b) All required monitoring data at all times during incinerator operation except during periods of monitoring equipment malfunction, calibration, or repair. Valid monitoring data shall be obtained for a minimum of seventy-five percent (75%) of the operating hours for each day and for ninety percent (90%) of the operating days per calendar quarter.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.2], [40 CFR 60.57c(d), 60.58c(b)(2)(iii), 07/01/02]

c) Records shall include identification of all calendar days on which the operating parameter data were not obtained. This identification document shall include an identification of the operating parameters not measured, reasons for not obtaining the data and a description of corrective actions taken.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.3], [40 CFR 60.58c(b)(3), 07/01/02]

d) Records of all malfunctions and situations that result in possible excess emissions releases. All situations where the incinerator was operated while the air pollution control equipment was not functioning properly qualify as possible excess emissions release incidents.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.4], [40 CFR 60.58c(b)(4), 07/01/02]

e) Records shall include identification of all calendar days and times on which the operating parameters deviated from the applicable limits that have been established by the permittee. This documentation shall include a description of the deviations, reasons for such deviations and a description of corrective actions taken.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.5], [40 CFR 60.58c(b)(5), 07/01/02]

f) The total hours of operation for each day, month and calendar year shall be recorded.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.9], [WAC 173-401-630(1), 09/16/02]

g) The total natural gas usage for each calendar year shall be recorded.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.10]

h) All initial performance test results. Periodic performance test results shall be retained in accordance with Standard Condition 1.27.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.11], [40 CFR 60.58c(b)(6), 07/01/02]

i) All maintenance records.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.12]

j) A record of all WSU incinerator operators that are certified per WAC 173-300, along with their certification and renewal dates.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.13], [40 CFR 60.58c(b)(9), (10), 07/01/02]

k) A record of efforts to create an on-going awareness of proper waste management practices among all users of the incinerator's disposal services as part of the waste management plan.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.14], [40 CFR 60.55c, 7/1/02]

l) A summary of the applicable standards under 40 CFR 60 Subpart Ec (40 CFR 60.50c – 60.58c).

[40 CFR 60.53c(h)(1), 7/1/02]

m) A description of the basic combustion theory applicable to a medical/infectious waste incinerator.

[40 CFR 60.53c(h)(2), 7/1/02]

n) Procedures for receiving, handling, and charging waste.

[40 CFR 60.53c(h)(3), 7/1/02]

o) Incinerator startup, shutdown, and malfunction procedures.

[40 CFR 60.53c(h)(4), 7/1/02]

p) Procedures for maintaining proper combustion air supply levels.

[40 CFR 60.53c(h)(5), 7/1/02]

q) Procedures for operating the incinerator and associated air pollution control systems within the established standards.

[40 CFR 60.53c(h)(6), 7/1/02]

r) Procedures for responding to periodic malfunction or conditions that may lead to malfunction.

[40 CFR 60.53c(h)(7), 7/1/02]

s) Procedures for handling ash.

[40 CFR 60.53c(h)(10), 7/1/02]

t) The permittee shall maintain records documenting the annual operator review of monitoring, recordkeeping and reporting requirements. Such records shall include the name of the operator(s) as well as the date the review occurred.

[WAC 173-401-615(1)(b), 09/16/02], [40 CFR 60.58c(b)(8), 07/01/02]

u) Documentation generated during the planning and siting of the incinerator.

[40 CFR 60.58c(b)(7), 07/01/02]

v) Records of calibration of devices required for monitoring the specific operating parameters stated in 1)b) of this MRRR.

[40 CFR 60.58c(b)(11), 07/01/02]

3) Reporting specific to the incinerator shall be conducted in accordance with the following.

[40 CFR 60.53c(h)(9), 7/1/02]

a) Any planned modification to the plant or operating procedures shall be reported to Ecology.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 1.3]

b) Any six minute averaged emission in excess of ten-percent (10%) opacity shall be reported to Ecology on a monthly basis no later than thirty (30) days after the end of the month during which the deviation is discovered. The report should include the following information for each deviation event:

i) The date, time, and duration of the deviation.

ii) The magnitude of the deviation.

iii) An estimate of excess emissions.

iv) The probable cause of the deviation.

v) Any corrective action taken or planned and the results of such action.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.8], [WAC 173-401-630(1), 09/16/02]

c) The following information shall be sent to Ecology. Reporting shall be submitted once per reporting period in accordance with Standard Condition 1.13.2 with the exception of information required under item xv) which shall be submitted within monthly deviation reports per Standard Condition 1.13.1.

[Order No. DE 98AQ-E124, Approval Condition 9.18], [40 CFR 60.58c(d), (e), 07/01/02]

i) The site specific range of values for the following operating parameters as established during initial or subsequent source testing. This should include the high and low values for each parameter as established by source testing.

a. Maximum flue gas temperature.

b. Minimum secondary combustion chamber temperature.

c. Minimum horsepower or amperage of the liquid pump to the wet scrubber.

d. Minimum pressure drop across the wet scrubber.

e. Minimum scrubber liquor flow rate.

f. Minimum scrubber liquor pH.

g. Maximum charge rate

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 9.1, 9.2]

ii) The highest and lowest values as measured for each operating parameter over the previous twenty four (24) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.3]

iii) A statement indicating whether any omissions, situations or deviations occurred during the prior twelve (12) month period. If any did occur, a brief statement describing the omission, situation, or deviation.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.4], [WAC 173-401-630(1), 09/16/02]

iv) Identification of days on which any of the required operating parameter data were not obtained, with identification of the parameter not measured, the reason and a description of any corrective action taken..

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.5]

v) The nature and details of malfunctions, including the date, time, duration and any corrective action taken.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.6]

vi) The actual recorded data outlining any deviations from established operating parameter upper or lower limits. The report should compare the actual recorded operating parameter values with the appropriate established parameter limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.7]

vii) Information regarding all instances when the bypass stack was utilized.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.10]

viii) Total waste throughput by waste type (medical/infectious waste, low-level radioactive waste, and pathological waste) for the previous twelve (12) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.11]

ix) The total hours of operation for each month and previous twelve (12) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.12]

x) Information regarding any occurrences when waste throughputs or hours of operation exceeded the applicable limits.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.13]

xi) Total natural gas usage for the six (6) month period being reported.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.14]

xii) A list of all incinerator operators that operated the incinerator for the six (6) month period being reported, as well as a copy of each operators certification.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.15]

xiii) All records of efforts to create an on-going awareness of proper waste management practices among users of WSU incinerator's disposal services as part of the waste management plan that took place during the six (6) month period being reported.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.16]

xiv) The results of any performance testing shall be submitted no later than 60 days following such testing.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.17]

xv) Monthly deviation reports shall include any malfunctions, days for which operating parameter data was not collected, and days for which recorded operating parameter data deviated from applicable limits, as well as any other deviations from permit conditions. These monthly reports shall follow the guidelines in Standard Condition 1.13.1.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.18], [WAC 173-401-630(1), 09/16/02], [WAC 173-401-615(1)(b), 09/16/02], [WAC 173-401-630(1), 09/16/02]

16M. The applicable testing methods shall be conducted according to the following frequency guidelines.

1) Opacity from the incinerator stack shall be measured annually (no more than 12 months from the previous test) using EPA Reference Method 9.

2) Testing of PM, CO and HCL emissions using the test methods specified in Section 2.4 shall be conducted before December 31, 2007. If the performance test indicates compliance with the applicable emission limit, WSU may forego a performance test for that pollutant for the subsequent 2 years.

3) At a minimum, performance testing for PM, CO and HCL emissions shall be conducted every third year, or no more than 36 months following the previous performance test.

4) If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 3.1, 3.2, 3.3, 3.5], [40 CFR 60.56c(c)(1), (c)(2), 7/1/02]

17M. Periodic performance testing for SO_2, NOx, Pb, Cd, Hg, Cr^{+6} and Ni using the test methods specified in Section 4 shall be conducted whenever PM, CO or HCL emission limits are exceeded during stack testing, or as required by Ecology .

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 2.8, 3.8, 3.9, 3.10, 3.11, 3.12]

18M. Testing for Dioxins/Furans shall be conducted according to the following conditions.

1) The minimum sample time shall be four (4) hours per test run.

2) Test results for total dioxins/furans shall be reported as grains per dry billion standard cubic feet at 7% O_2 based on toxic equivalency factors published in Table 2 of 40 CFR 60, Subpart Ec.

3) Periodic performance testing shall be conducted whenever PM, CO or HCL emission limits are exceeded during stack testing, or as required by Ecology .

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 2.8, 3.4]

19M. The following shall apply regarding the emission limits for specified pollutants. All operating parameters shall be measured as three (3) hour rolling averages, calculated each hour as the average of the previous three (3) operating hours.

1) Operation of the facility simultaneously above the maximum charge rate and below either the minimum pressure drop across either wet scrubber or the minimum horsepower or amperage to either scrubber (each measured on a 3-hour rolling average) shall constitute a violation of the PM emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.2], [40 CFR 60.56c(f)(1), 07/01/02]

2) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, Dioxins/Furans, HCl, Pb, Cd and Hg emission limits.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.7], [40 CFR 60.56c(f)(6), 07/01/02]

3) Operation of the facility simultaneously above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) shall constitute a violation of the CO emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.3], [40 CFR 60.56c(f)(2), 07/01/02]

4) Operation of the facility simultaneously above the maximum charge rate and below the minimum scrubber liquor pH for either scrubber (each measured on a 3-hour rolling average) shall constitute a violation of the HCl emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.5], [40 CFR 60.56c(f)(4), 07/01/02]

5) Operation of the facility simultaneously above the maximum charge rate, below the minimum secondary chamber temperature, and below either minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) shall constitute a violation of the Dioxins/Furans emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.4], [40 CFR 60.56c(f)(3), 07/01/02]

6) Operation of the facility simultaneously above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) shall constitute a violation of the Hg emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.6], [40 CFR 60.56c(f)(5), 07/01/02]

7) Emission limits shall apply at all times except during periods of startup, shutdown, or malfunction, provided that no waste is charge to the affected facility during startup, shutdown, or malfunction.

[40 CFR 60.56c(a), 7/1/02]

20M. The O&M manual(s) for equipment that has the potential to affect emissions associated with the incinerator shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual shall be subject to the following minimum requirements:

1) The O&M manual(s) shall include the incinerator's operation and maintenance, as well as the quench section, the packed spray tower, the venturi scrubber, and mist eliminator operation and maintenance.

2) The O&M manual shall fully describe all instrumentation for the incinerator and scrubbers.

3) The O&M manual(s) for the sensors and instruments used to monitor the operating parameters listed shall incorporate quality control and quality assurance provisions. Manufacturers' instructions may be referenced.

4) The O&M manual(s) must include the following:

a) Normal operating parameters for the control systems, sensors, and instruments,

b) A maintenance schedule for the control systems, sensors, and instruments,

c) Monitoring and recordkeeping requirements for the control systems, sensors, and instruments,

d) A description of the monitoring procedures, for the control systems, sensors, and instruments,

e) Actions for abnormal control system, sensor, or instrumentation operation, and

f) Procedures for the proper handling and disposal of incinerator ash.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 5.4, 6]

21M. The following conditions shall apply to the testing required for the incinerator.

1) The permittee shall provide written notification to Ecology of the intent to conduct any performance test, as well as a written test plan that includes a description of the methods(s) proposed at least thirty (30) calendar days prior to the start of any testing

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.2, 7.4, 7.5]

2) During any periodic performance testing, the incinerator shall:

Operate at a maximum charge rate of less than 500 pounds per hour (3-hour average). *Maximum charge rate* is defined in 40 CFR 60.51c, and corresponds to a 3-hour average charge rate of 454 pounds per hour.

3) Testing shall consist of three separate runs with a minimum sampling time of one-hour per test run (unless otherwise approved by Ecology).

   [Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.5], [40 CFR 60.56c(b)(1), (2), 7/1/02]

4) Use of alternate test methods must be requested in writing by the permittee and approved by Ecology.

   [Order No. DE 98AQ-E124, **Issued 8/7/98**, Approval Condition 2.6]

5) The use of the bypass stack during any performance test shall invalidate that particular performance test.

   [Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.7], [40 CFR 60.56c(b), 7/1/02]

6) In the event that the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least 24 hours before the test.

   [Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 7.6]

7) The permittee may conduct a repeat performance test within thirty (30) days of violation of applicable operating parameter(s) to demonstrate that the facility is not in violation of the applicable emission limit(s). Such a repeat performance test shall be conducted under the identical operating parameters that resulted in an emission violation.

   [Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 10.8], [40 CFR 60.56c(h), 07/01/02]

8) WSU may conduct a repeat performance test at any time to establish new values for the operating parameters. Ecology may request a repeat performance test at any time.

   [Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 10.9], [40 CFR 60.56c(j), 07/01/02]

22M. BACT/T-BACT shall consist of the following. Generally, the permittee proposed the use of a quench section, a caustic solution packed spray tower, a venture scrubber using caustic solution, and mist eliminator to control air pollution emissions from the incinerator. In addition, BACT shall consist of the following with regard to specific pollutants.

1) Particulate Matter – The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to control PM emissions

2) Carbon Monoxide – The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to control CO emissions.

3) Nitrogen Oxides – The use of natural gas as pre-heating and auxiliary fuel.

4) Sulfur Dioxide – The use of natural gas as pre-heating and auxiliary fuel.

5) Total Organic Carbon – The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to control TOC emissions.

6) Opacity - The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to limit visible stack emissions.

7) Fugitive Dust Emissions

   a) On-Site Roads – The pavement of roads, chemical treatment of roads with approved binders, or water application to on-site roads as required to minimize fugitive dust.

   b) Incinerator Ash Handling – Only transferring the ash from the incinerator to sealable, non-combustible, non-melting containers within the enclosed incinerator building, followed by disposal of the ash at an approved site.

8) Cooling Tower – The use of a high efficiency (0.005% drift) drift eliminator.

[Order No. DE 98AQ-E124, Issued 8/7/98, Section 3. BACT and Section 4. T-BACT

SEED PROCESSING FACILITY

23M. The following conditions shall apply to the monitoring, recordkeeping, and reporting required for the seed processing facility.

1) Monitoring

   a) EPA RM 9 for visible emissions on the debearder cyclone shall be performed once each calendar month that the debearder process is operated. The permittee shall perform the testing while the debearder process is in operation and during the stage of the process that has the greatest potential to produce visible emissions.

   b) Visible emission monitoring as described by **4M** shall apply to all potential points of particulate matter emissions at the seed processing facility except for the debearding process. The permittee shall perform the observations while the associated processes are in operation and during the stage of the process that has the greatest potential to produce visible emissions.

2) Recordkeeping

   a) The permittee shall maintain all original RM 9 test forms and visible emission monitoring forms (as required by **4M**) for a period of five (5) years. All forms shall be kept in a readily accessible manner for inspection by Ecology personnel.

3) Reporting

1) In the event that any RM 9 test documents a deviation above the 20% opacity limit, the permittee shall report the details of the deviation as required under Standard Condition 1.13.1. The following minimum information shall be included in the monthly deviation report.

i) The date, time, and approximate duration of the deviation.

ii) The magnitude of the deviation.

iii) An estimate of excess emissions.

iv) The probable cause of the deviation.

v) Any corrective action taken or planned and the results of such action.

[WAC 173-401-615(1)(b), 09/16/02]

COMPOST FACILITY

24M. At least once per month, as well as any time visible emissions/fugitive dust are observed, the permittee shall perform brief, walk-around surveys for the purpose of determining the presence of visible emissions/fugitive dust crossing the facility site boundary. The surveys shall be conducted while the facility is in operation, and shall include observation for any visible emissions, including fugitive emissions, regardless of the source.

Complete control of fugitive dust from the compost facility is not considered possible, regardless of the control measures taken. In the event that visible emissions are observed, the permittee shall verify that the facility is being operated according to standard procedures, that all feasible dust control measures are being taken, and that the fugitive emissions are minimal. If these conditions are met, no corrective action is required. The permittee shall record the date of the survey, the name of the observer, the weather at the time of the survey, an indication of whether any visible emissions/fugitive dust were observed to cross the property boundary, and an assessment of procedures, dust control measures and the magnitude of the fugitive emissions.

If corrective action is required, the permittee shall submit a report as part of the monthly reporting of deviations as described in Standard Condition 1.13.1., as well as annual certification of compliance as described in Standard Condition 1.13.3. Deviation reports shall include the time, date and duration of the deviation, a description of the cause of the visible emissions, the corrective action taken, and the results of the corrective action.

[WAC 173-401-615(1)(b), 09/16/02]

25M. Odor evaluation shall be performed daily as described in the most current version of the WSU Compost Facility Operating Procedures. In addition, the permittee shall evaluate whether odors are detectable at the facility boundary. If unreasonable odors are present or continued complaints received, Ecology will order the permittee to take specific measures to control odors. These measures may include installation of additional pollution control devices.

Recordkeeping shall include information documenting that the odor evaluation took place each day, the name of the person performing the survey and an indication of whether any offensive and/or abnormal odors were detectable.

Reporting shall consist of monthly reporting of deviations as described in Standard Condition 1.13.1, as well as annual certification of compliance as described in Standard Condition 1.13.3. Any monthly deviation reports documenting odors detected shall include the time, date and duration of the deviation,

a description of the cause of the odors, the corrective action taken, and the results of the corrective action.

In addition, the permittee shall submit to Ecology on an annual basis the most current Compost Facility Operating Procedures and the Whitman County Dept. of Public Health permit. The new versions of these documents shall be submitted no later than thirty (30) days following the date on which they are either modified or issued.

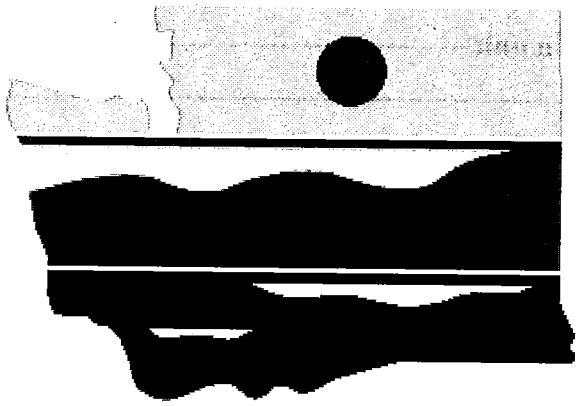
[Order No. DE 95AQ-E148, Issued 07/27/95, Approval Condition 2.1], [WAC 173-401-615(1)(b), 09/16/02]

26M. The O&M manual for the Compost Facility shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual shall at a minimum include the most current Whitman County Dept. of Public Health permit and WSU Compost Facility Operating Procedures.

[Order No. DE 95AQ-E148, Issued 07/27/95, Approval Condition 3]

4. Radioactive Air Emissions License – Washington State Department of Health

Not included in this document. Contact the WSU Radiation Safety Office for the permit.



WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

WASHINGTON STATE DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE
4601 NORTH MONROE
SPOKANE, WASHINGTON 99205-1295

FINAL STATEMENT OF BASIS
FOR
AIR OPERATING PERMIT NUMBER 07AQ-E211
WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

AOP	Air Operating Permit
ASIL	Acceptable Source Impact Level
BACT	Best Available Control Technology
BTU	British Thermal Units
°C	Degrees Celsius
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CEMS	Continuous Emission Monitoring System
dscf/m	Dry Standard Cubic Foot per minute
Ecology	Washington State Department of Ecology
E.I.T.	Engineer in Training
EPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit
FCAA	Federal Clean Air Act
ft^3	Cubic foot
gr/dscf	Grain per dry standard cubic foot
HMIWI	Hospital-Medical-Infectious Waste Incinerator
hr	Hour
MMBTU	Million British Thermal Units
MRRR	Monitoring, Recordkeeping, and Reporting Requirement
MVAC	Motor Vehicle Air Conditioner
N_2	Nitrogen gas
NOC	Notice of Construction
NO_x	Oxides of Nitrogen
NSPS	New Source Performance Standard
O_2	Oxygen
O&M	Operation & Maintenance
P.E.	Professional Engineer
PM	Particulate Matter
PM-10	Particulate Matter with aerodynamic diameter $\leq$ 10 micrometers
ppm	Parts per million
QIP	Quality Improvement Plan
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
RICE	Reciprocating Internal Combustion Engine
RM	EPA Reference Method from 40 CFR Part 60, Appendix A
scfm	Standard Cubic Feet per Minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
T	Temperature
TAP	Toxic Air Pollutant
TPY	Tons Per Year
TSP	Total Suspended Particulate
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
yr	Year

Boiler & RICE Unit Identification

This section has been included to clarify the identification of boilers and RICE's referenced throughout this SOB as well as the associated AOP.

Emission Unit

Boiler #1; College Avenue Steam Plant ..... 99MM Btu/hour, natural gas-fired
Boiler #2: College Avenue Steam Plant ..... 99MM Btu/hour, natural gas-fired
Boiler #3: Grimes Way Steam Plant ..... 99 MM Btu/hour, distillate/natural gas
Boiler #4: Grimes Way Steam Plant ..... 99 MM Btu/hour, distillate/natural gas
Boiler #5: Grimes Way Steam Plant ..... 99 MM Btu/hour, distillate/natural gas
RICE #1: Grimes Way Steam Plant ..... 1100 KW RICE, natural gas-fired
RICE #2: Grimes Way Steam Plant ..... 1100 KW RICE, natural gas-fired
RICE #3: Grimes Way Steam Plant ..... 1750 KW RICE, distillate-fired

Selected Emission Units – Annual Potential To Emit in Tons Per Year (tpy)

Emission Units	PM-10 (typ)	CO (tpy)	NO_X (tpy)	SO_2 (tpy)	VOC (tpy)
College Avenue Steam Plant Boilers #1 and #2 – Natural Gas Fired[1]	3.84	19.05	12.36	0.30	2.57
Grimes Way Steam Plant Boilers #3, #4, and #5 Combined – Natural Gas and Distillate Fired	16.20	2.10	53.20	1.80	1.00
Grimes Way Steam Plant RICE #1 and #2 Combined	1.10	0.03	15.35	0.03	0.05
Grimes Way Steam Plant RICE #3	0.83	0.05	20.00	2.36	0.01
Hospital/Medical/Infectious Waste Incinerator (Incinerator)	0.11	0.001	1.13	0.006	0.04
Animal Feed Preparation Plant	7.62	--	--	--	--
Agronomy Seed Processing Plant	0.53	--	--	--	0.47
Total	30.23	21.23	102.00	4.49	4.14

1.0 Introduction

This document sets forth the legal and factual basis for the permit conditions in a FINAL 3rd Revision to the AOP issued by the State of Washington Department of Ecology for a public university located in Pullman, Washington. This document is called a "statement of basis" and is required by Washington

[1] College Avenue Steam Plant Potential to Emit from AOP renewal application

State regulations [Chapter 173-401 WAC]. A statement of basis does not contain enforceable permit conditions. Enforceable permit conditions are contained in the AOP itself.

2.0 Facility Identifying Information

2.1 Company Name ---------- Washington State University

2.2 Facility Name---------- Pullman, Washington Campus

2.3 Unified Business Identification Number ----------385-003-280

2.4 Facility Address----------Pullman, Washington 99164

2.5 Responsible Official----------Greg Royer, Vice President for Business Affairs

Mailing Address----------P.O. Box 641045 Pullman, Washington 99164-1045

2.6 Facility Contact ---------- Gene Patterson, Environmental Health and Safety

2.7 Facility Contact Phone Number ---------- (509) 335-3041

3.0 Basis for Title V Applicability

Washington State University, Pullman campus, is subject to Title V, Air Operating Permit Regulations, due to the emission of, or the potential to emit in excess of 100 tons per year of oxides of nitrogen (NO_X). WAC 173-401-200(17)(b) identifies any source that directly emits or has the potential to emit one hundred tpy or more of any air pollutant as a major source. Major sources are required to obtain Title V permits under 173-401-300(1)(a)(i).

4.0 Attainment Classification

The facility is located in an area that is classified as attainment for all criteria pollutants as of May 2007.

5.0 Title V Facility Timeline

5.1 December 8, 1994 ---------- Source became subject to Title V AOP Program

5.2 December 2, 1996 ---------- Original Title V AOP is issued (Order No. DE96AQ-E139)

5.3 December 2, 2001 ----------Order No. DE96AQ-E139 expired

5.4 July 25, 2002 ---------- Final Renewal Permit Issued (Order No. 02AQER-4553)

5.5 August 1, 2002 ----------Order No. 02AQER-4553 Effective Date

5.6 August 1, 2007 ----------Order No. 02AQER-4553 expires

5.7 May 24, 2007----------Draft Order No. 07AQ-E211 Issued

5.8 May 29, 2007 ---------- Public Comment Period Begins

5.9 June 28, 2007---------- Public Comment Period Ends

5.10 June 29, 2007----------EPA Review Period Begins

5.11 July 11, 2007 ---------- EPA Review Period Ends

5.12 July 30, 2007 ---------- Final Order No. 07AQ-E211 Issued

5.13 July 31, 2012 ----------Order No. 07AQ-E211

6.0 Facility Description and General Information

6.1 General Campus Description – Washington State University (WSU), located in Pullman, Washington, is a comprehensive institution of higher learning. The campus is most active during the school year from August through May. The present population of the Pullman campus is approximately 17,000 students. The summer campus population is approximately 30 percent of the school year population. The WSU Pullman campus occupies approximately 1800 acres containing 120 building groups totaling over 400 major and minor buildings. Building ages vary from new to almost 100 years old. Roads vary from four lane equipped with traffic lights to a few unpaved sections in little used areas of the campus. The WSU campus encompasses resident and commuting student and faculty facilities, many research and teaching facilities, laboratories, a veterinary hospital, medical research, animal and agricultural research and facilities, farm land, grain and seed storage and mixing facilities, and a composting facility. The campus is heated by steam from natural gas-fired boilers #1 and #2 at the College Avenue Steam Plant, and natural gas/diesel-fired boilers #3, #4 and #5 at the Grimes Way Steam Plant. Two natural gas-fired reciprocating internal combustion engine (RICE) generators and one diesel-fired RICE generator at the Grimes Way Steam Plant provide backup electrical power. Buildings beyond the steam system are heated by individual natural gas fired furnaces and boilers. Buildings with food preparation, laboratory demonstration, or experimental facilities are equipped with exhaust hoods for building ventilation. The campus operates a *Medical/Infectious Waste Incinerator* (which also combusts low-level radioactive waste and pathological waste) to destroy waste generated by the veterinary hospital, various research laboratories and animal holding areas.

6.2 Washington State Department of Health Radioactive Air Emissions License – As required by WAC 246-247-060(1)(e) the radioactive air emissions license as issued by the Department of Health must be incorporated into the Air Operating Permit. The Department of Health license has been issued to WSU and has been incorporated as Section 4 of the AOP associated with this SOB. The license covers radioactive air emissions from multiple facilities on campus as specified by the license. WAC 246-247-075 and WAC 246-247-080 give the Department of Health authority over monitoring, testing, quality assurance, inspections, reporting and recordkeeping at sources of radioactive air emissions. The AOP does not require any monitoring, recordkeeping or reporting for facilities at WSU with respect to radioactive air emissions, other than that required by the radioactive air emissions license.

7.0 Significant Facility Emission Units/Processes

7.1 Facility Wide (Section 2.1 in AOP)

7.2 College Avenue Steam Plant Boilers #1 & 2 – Natural gas-fired (Section 2.2 in AOP)

7.3 Grimes Way Steam Plant (Section 2.3 in AOP)

7.4 Hospital/Medical/Infectious Waste Incinerator (HMIWI) (Section 2.4 in AOP)

7.5 Animal Feed Preparation Plant (Section 2.5 in AOP)

7.6 Agronomy Seed Processing Plant (Section 2.6 in AOP)

7.7 Compost Facility (Section 2.7 in AOP)

8.0 Insignificant Emission Units and Activities

8.1 The following insignificant emission unit categories were proposed by the permittee in the Title V Renewal Application materials submitted to Ecology and have been found to meet the requirements outlined in WAC 173-401-530.

8.1.1 WAC 173-401-530(1)(d) – *Emission unit or activity generates only fugitive emissions.* The permittee has unpaved roads and parking lots. Designation of an emission unit or activity as insignificant for purposes of the chapter does not exempt the unit or activity from any applicable requirement.

8.1.2 WAC 173-401-530(1)(a) and WAC 173-401-531 – *Actual emissions of all regulated air pollutants from a unit or activity are less than the emissions thresholds.* The permittee has established (via recordkeeping of products and amount used) that the actual emissions from both the Housing and McCluskey paint booths have been below the significance levels in the recent past. However, in order to continue to establish these emission units as insignificant, the permittee must continue to maintain records of products and amounts used. This data will be submitted to Ecology as emission inventory data. Similar data must also be submitted related to the operation of the paint booth recently installed in the Johnson Annex. This booth is expected to qualify as an insignificant emission unit based on actual emissions.

8.2 The following insignificant emission unit categories were proposed by the permittee in the Title V Renewal Application materials submitted to Ecology and have been found to meet the requirements outlined in WAC 173-401-532 as categorically insignificant.

8.2.1 Lubricating oil storage tanks (WAC 173-401-532(3))

8.2.2 Storage tanks, reservoirs and pumping and handling equipment of any size, limited to soaps, lubricants, hydraulic fluid, vegetable oil, grease, animal fat, aqueous salt solutions or other materials and processes using appropriate lids and covers where there is no generation of objectionable odor or airborne particulate matter (WAC 173-401-532(4))

8.2.3 Pressurized storage of oxygen, nitrogen, carbon dioxide, air, or inert gases (WAC 173-401-532(5))

8.2.4 Storage of solid material, dust-free handling (WAC 173-401-532(6))

8.2.5 Vehicle exhaust from auto maintenance and repair shops (WAC 173-401-532(7))

8.2.6 Vents from rooms, buildings and enclosures that contain permitted emissions units or activities from which local ventilation, controls and separate exhaust are provided (WAC 173-401-532(9))

8.2.7 Internal combustion engines for propelling or powering a vehicle (WAC 173-401-532(10))

8.2.8 Brazing, soldering and welding equipment and oxygen-hydrogen cutting torches for use in cutting metal where in components of the metal do not generate HAPs or HAPs precursors (WAC 173-401-532(12))

8.2.9 Metal melting and molten metal holding equipment and operations wherein the components of the metal do not generate HAPs or HAP precursors. Electric arc furnaces are not considered for listing as insignificant (WAC 173-401-532(21))

8.2.10 Plant upkeep including routine housekeeping, preparation for and painting of structures or equipment, re-tarring roofs, applying insulation to buildings in accordance with applicable environmental and health and safety requirements and paving or stripping parking lots (WAC 173-401-532(33))

8.2.11 Cleaning and sweeping of streets and paved surfaces (WAC 173-401-532(35))

8.2.12 Steam cleaning operations (WAC 173-401-532(39))

8.2.13 Portable drums and totes (WAC 173-401-532(42))

8.2.14 Lawn and landscaping activities (WAC 173-401-532(43))

8.2.15 General vehicle maintenance including vehicle exhaust from repair facilities (WAC 173-401-532(45))

8.2.16 Comfort air conditioning or air cooling systems, not used to remove air contaminants from specific equipment (WAC 173-401-532(46))

8.2.17 Natural draft hoods, natural draft stacks, or natural draft ventilators for sanitary and storm drains, safety valves, and storage tanks subject to size and service limitations expressed elsewhere in this section (WAC 173-401-532(47))

8.2.18 Natural and forced air vents and stacks for bathroom/toilet facilities (WAC 173-401-532(48))

8.2.19 Office activities (WAC 173-401-532(49))

8.2.20 Personal care activities (WAC 173-401-532(50))

8.2.21 Fire fighting and similar safety equipment and equipment used to train fire fighters excluding fire drill pits (WAC 173-401-532(52))

8.2.22 Materials and equipment used by, and activity related to operation of infirmary; infirmary is not the source's business activity (WAC 173-401-532(53))

8.2.23 Fuel and exhaust emissions from vehicles in parking lots (WAC 173-401-532(54))

8.2.24 Structural changes not having air contaminant emissions (WAC 173-401-532(67))

8.2.25 Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy, e.g., blueprint activity, photocopiers, mimeograph, telefax, photographic developing, and microfiche (WAC 173-401-532(70))

8.2.26 Repair and maintenance activities, not involving installation of an emission unit and not increasing potential emissions of a regulated air pollutant (WAC 173-401-532(74))

8.2.27 Batteries and battery charging (WAC 173-401-532(77))

8.2.28 Solid waste (as defined in the Washington Administrative Code) containers (WAC 173-401-532(79))

8.2.29 Totally enclosed conveyors (WAC 173-401-532(86))

8.2.30 Steam vents and safety relief valves (WAC 173-401-532(87))

8.2.31 Air compressors, pneumatically operated equipment, systems and hand tools (WAC 173-401-532(88))

8.2.32 Steam leaks (WAC 173-401-532(89))

8.2.33 Process water and white water storage tanks (WAC 173-401-532(94))

8.2.34 Demineralizer tanks (WAC 173-401-532(95))

8.2.35 Clean condensate tanks (WAC 173-401-532(96))

8.2.36 Chipping (WAC 173-401-532(112))

8.2.37 Debarking (WAC 173-401-532(113))

8.2.38 Pond dredging (WAC 173-401-532(116))

8.2.39 Non-PCB oil filled circuit breakers, oil filled transformers and other equipment that is analogous to, but not considered to be, a tank (WAC 173-401-532(118))

8.2.40 Electric or steam-heated drying ovens and autoclaves (WAC 173-401-532(119))

8.2.41 Sewer manholes, junction boxes, sumps and lift stations associated with wastewater treatment systems (WAC 173-401-532(120))

8.3 The following insignificant emission units were proposed by the permittee in the Title V Renewal Application materials submitted to Ecology and have been found by Ecology to meet the requirements outlined in WAC 173-401-533 as insignificant on the basis of size or production rate.

8.3.1 WAC 173-401-533(2)(f) – *Combustion sources less than 5 hundred thousand BTU/hr heat input using any commercial fuel containing less than 0.4% by weight of sulfur for coal and less than 1% by weight sulfur for other fuels.* The permittee has seventeen (17) emergency generators that fall under this category.

8.3.2 WAC 173-401-533(2)(e) – *Combustion sources less than 5 million BTU/hr heat input using exclusively natural gas, butane, propane and/or LPG.* The permittee has approximately thirteen (13) high pressure boilers, nineteen (19) low pressure boilers, two hundred thirteen (213) hot water heaters, one hundred thirty-three (133) furnaces, two (2) outdoor fine arts kilns or furnaces, and one (1) fine arts welder.

8.3.3 WAC 173-401-530(1)(a) – *Actual emissions of all regulated air pollutants from a unit or activity are less than the emission thresholds established in WAC 173-401-530(4).* The permittee proposed that since actual emissions from the McCluskey and Housing paint booths have been below the threshold levels in the past, both paint booths be designated as insignificant. Ecology has determined that the permittee must continue to maintain paint usage records in order to establish that the emissions from the paint booths continue to be below the threshold levels.

8.4 The following insignificant emission units were proposed by the permittee in the Title V Renewal Application materials submitted to Ecology and have not been found by Ecology to meet the requirements outlined in WAC 173-401-533 as insignificant on the basis of size or production rate.

8.4.1 WAC 173-401-533(3)(c) – *Chemical or physical analytical laboratory operations or equipment including fume hoods and vacuum pumps.* The permittee has approximately eight hundred and fifty (850) fume hoods, and twenty-five (25) vacuum pumps. Due to

the sheer number of the hoods and vacuum pumps, Ecology has determined that case-by-case determination will require significant time and effort. Ecology will re-open and amend the AOP as necessary pending the results of further evaluation.

9.0 Comments and Corresponding Responses

9.1 Comments received during public comment periods and EPA review periods for the original issuance as well as revisions are on file at Ecology's Eastern Region Office in Spokane, along with Ecology's response to the comments.

10.0 Requirements Determinations/Explanations

10.1 Initial or one-time requirements that have not been included in the AOP as ongoing applicable requirements.

10.1.1 40 CFR 60.54c(a), (c), Siting requirements for new HMIWI's. An analysis of the impacts of the facility shall be performed to consider various impacts on a site specific basis.

10.1.1.1 Extensive analysis was performed with regard to the construction of the new incinerator, including the Environmental Impact Statement process. Records documenting the processes can be found in the WSU Incinerator files at the Ecology's Eastern Region Office.

10.1.2 40 CFR 60.56c(b), The owner or operator of affected HMIWI's shall conduct an initial performance test to determine compliance with the emission limits.

10.1.2.1 This testing occurred on November 16-18, 1999, and February 29 – March 2, 2000, and was conducted by Amtest Inc. A copy of the Emissions Test Report is located in the source test file at Ecology's Eastern Regional Office in Spokane, Washington. The permittee has notified Ecology that the emissions test report incorrectly stated that the testing occurred in December rather than the actual date in November.

10.1.3 Order No. DE 98AQ-E124, Approval Conditions 2.1, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, Within sixty (60) days of initial startup of the incinerator, the permittee shall conduct performance testing, and compliance with associated ASIL's shall be verified using modeling acceptable to Ecology.

10.1.3.1 This testing occurred on November 16-18, 1999, and February 29 – March 2, 2000, and was conducted by Amtest Inc. A copy of the Emissions Test Report is located in the source test file at Ecology's Eastern Regional Office in Spokane, Washington. The modeling was conducted by Kirk D. Winges and is located in the WSU Incinerator files at the above Ecology office.

10.1.4 40 CFR 60.56c(d)(1), Establishment of appropriate minimum and maximum values for the operating parameters included in Table 3 of subpart Ec following initial performance testing.

10.1.4.1 The appropriate minimum and maximum values for the operating parameters were established following the initial performance testing. The values established are located in the source test report file at Ecology's Eastern Region Office.

10.1.5 Order No. DE 98AQ-E124, Approval Conditions 4 – 4.7, Establishment of appropriate minimum and maximum values for the operating parameters included in Table 3 of subpart Ec following initial performance testing.

10.1.5.1 The appropriate minimum and maximum values for the operating parameters were established following the initial performance testing. The values established are located in the source test report file at Ecology's Eastern Region Office.

10.1.6 40 CFR 60.58c(a), Submittal of notifications regarding commencement of construction, intent to construct, anticipated date of construction commencement, siting documentation, the type of waste to be combusted, maximum design burning capacity, anticipated maximum charge rate and other related information.

10.1.6.1 Extensive correspondence occurred between Ecology and the permittee with regard to the construction of the new incinerator. Within this correspondence, the permittee provided the required information. Documentation can be found in the WSU Incinerator files at the Ecology's Eastern Region Office.

10.1.7 40 CFR 60.58c(c)(1), (2) and Order No. DE 98AQ-E124, Approval Condition 7.8, No later than 60 days following the initial performance testing of the incinerator, the permittee shall submit the initial performance test data as well as the values for the site specific operating parameters.

10.1.7.1 The initial performance test reports, as well as the appropriate minimum and maximum values for the operating parameters were received by Ecology on May 2, 2000. The testing occurred on December 16-18, 1999 and February 29-March 2, 2000. The reports are located in the WSU source test report file at Ecology's Eastern Region Office.

10.1.8 Order No. DE 98AQ-E124, Approval Conditions 7.2, 7.3, The permittee shall provide written notification to Ecology of the anticipated date of startup as well as the date of actual startup of the incinerator.

10.1.8.1 Notification stating the anticipated date of startup as August 9, 1999 was received by Ecology on July 16, 1999. This actual startup date was modified to August 2, 1999 in correspondence received by Ecology on July 21, 1999. This correspondence is located in the WSU incinerator files at Ecology's Eastern Region Office.

10.1.9 Order No. DE 98AQ-E124, Approval Condition 7.1, The permittee shall provide written notification to Ecology of the date construction on the incinerator commenced no later than thirty (30) calendar days after such date.

10.1.9.1 Based on the records of both Ecology and the permittee, this notification requirement of the cited Order was not met. However, it is clear from the substantial correspondence between Ecology and the permittee that clear lines of communication had been established, and Ecology was clearly aware that construction of the incinerator was underway.

10.1.10 40 CFR 60.58c(c)(3), No later than 60 days following the initial performance testing of the incinerator, the permittee shall submit the waste management plan.

10.1.10.1 The waste management plan was received by Ecology on May 12, 1999.

10.1.11 Order No. DE 98AQ-E124, Approval Condition 7.9, The permittee shall prepare and submit a waste management plan to Ecology.

10.1.11.1 The waste management plan was received by Ecology on May 12, 1999.

10.1.12 Order No. DE 98AQ-E124, Approval Conditions 6, 7.7, The permittee shall develop and submit to Ecology a site specific O&M manual for all equipment associated with the incinerator that has the potential to affect emissions to the atmosphere.

10.1.12.1 The O&M manual was developed and a copy received by Ecology on May 2, 2000. The manual is located in the WSU facility files at Ecology's Eastern Region Office.

10.1.13 40 CFR 60.58c(d), An initial annual report shall be submitted no later than one (1) year following submittal of the initial performance testing results, operating parameter minimum and maximum limits, and waste management plan.

10.1.13.1 The first annual report was received by Ecology on February 16, 2000.

10.1.14 40 CFR 60.58c(f), An initial semi-annual report shall be submitted no later than six (6) months following submittal of the initial performance testing results, operating parameter minimum and maximum limits, and waste management plan.

10.1.14.1 The first semi-annual report concerning the incinerator was received by Ecology on August 2, 1999.

10.1.15 Order No. 01AQER-3336, Approval Conditions 5.1, 5.2, Notification of anticipated startup of the natural gas fired boilers #1 and #2 at the College Avenue Steam Plant shall be provided in writing to Ecology postmarked not more than sixty (60) calendar days or less than thirty (30) calendar days before such date.

10.1.15.1 Notification stating the date of startup as the week beginning December 17, 2001 was sent to Ecology by the permittee on December 17, 2001. This correspondence is located in the WSU Boilers 9 & 10 permit file at Ecology's Eastern Region Office.

10.1.16 Order No. 01AQER-3336, Approval Conditions 5.1, 5.3, and 40 CFR 60.7(a)(3), Notification of actual date of startup of the natural gas fired boilers #1 and #2 at the College Avenue Steam Plant shall be provided in writing to Ecology within fifteen (15) days of such date.

10.1.16.1 Notification stating the date of startup as the week beginning December 17, 2001 was sent to Ecology by the permittee on December 17, 2001. This correspondence is located in the WSU Boilers 9 & 10 permit file at Ecology's Eastern Region Office.

10.1.17 Order No. 01AQER-3336, Approval Conditions 5.1, 5.4, Notification regarding completion of the O&M manual for the boiler system (boilers #1 and 2 at the College Avenue Steam Plant) shall be submitted in writing to Ecology within thirty (30) days of initial startup of the boilers.

10.1.17.1 Notification documenting the completion of the O&M manuals for boilers #1 and #2 was received by Ecology on July 23, 2002. This correspondence is located in the permit file for Order No. 01AQER-3336 at Ecology's Eastern Regional Office in Spokane, Washington.

10.1.18 Order No. DE 95AQ-E148, Approval Condition 3, Within sixty (60) days of initial startup of the facility expansion, the O&M manual as developed for the Compost Facility shall be submitted to Ecology for approval.

10.1.18.1 The O&M manual was received by Ecology on August 7, 1995. This correspondence is located in the WSU Compost Facility permit file at Ecology's Eastern Region Office.

10.1.19 Order No. 03AQER-5744, Approval Condition 8.2, The order approving construction of the Grimes Way Steam Plant becomes void if construction is not commenced within eighteen (18) months of receipt of the final order.

10.1.19.1 While Ecology has not received specific correspondence citing the date that construction on the plant commenced, correspondence with the permittee throughout late 2003 clearly indicates that construction has commenced.

10.1.20 The following requirements clarified miscellaneous issues with regard to the applicable emission unit and were not, in actuality, approval conditions. These NOC conditions have not been included in the AOP as ongoing applicable requirements.

10.1.20.1 Order No. DE 79-421 Approval Condition 3, Sulfur Dioxide Emission

This approval condition states that total annual sulfur dioxide emissions will be determined by USEPA Region X in Seattle, Washington.

10.1.20.2 Order No. 03AQER-5744 Approval Condition 8.9, More Restrictive Limitation.

This approval condition clarifies that where multiple requirements in the referenced Order include conflicting limitations on emissions, the more restrictive emission limitation will apply.

11.0 Monitoring, Recordkeeping, and Reporting Requirement (MRRR) Sufficiency Explanations – The following section provides brief discussions regarding the reasoning behind the MRRR's included as part of the AOP. The criteria is that each MRRR must be sufficient to assure compliance with the associated condition, emission standard or work practice.

11.1 MRRR **1M** – No specific monitoring can reasonably be required for these requirements. The nature of the requirements makes it necessary to rely on the good faith of the permittee to conscientiously monitor site operations and to promptly report any deviations.

11.2 MRRR **2M** – This monitoring is used for conditions that require the source to maintain a certain status quo (e.g., O&M manual accessible to employees in operation of the equipment; maintaining replacement parts for routine repairs to monitoring equipment). To assure compliance with these provisions, the permittee is simply required to check that there has been no change in the status quo. Since such a change is unlikely, an annual inspection was deemed adequate.

11.3 MRRR **3M** – This MRRR was designed to provide sufficient response to complaints regarding facility emissions affecting the landowners neighboring or in the affected vicinity of the facility. Timeframes were chosen to provide the permittee with adequate time to respond appropriately as well as ensuring that complaints not go unnoticed.

11.4 MRRR **4M** – A monthly visible emission observation is considered to be sufficient monitoring for general process units with regard to the opacity standard. The specifics of the monitoring described have been designed to provide relatively frequent evaluation of each potential emission

point, while requiring visible emission testing using EPA RM 9 only when visible emissions are observed. The monitoring was designed with the goal of providing the permittee with sufficient opportunity to respond to upsets appropriately while at the same time avoiding significant, prolonged environmental degradation. With regard to the use of visible emission evaluation surveys as a monitoring technique related to particulate matter standards, the method was chosen due to the fact that most of the general process units to which this is applicable are not large enough to justify performance testing using EPA RM's 5 and/or 202. Visible emission observations provide a convenient alternative method to source testing for the purpose of evaluating the performance of such units.

11.5 MRRR **5M** – The monitoring has been designed to require periodic reviews of Operation and Maintenance manuals, original Notice of Construction application materials, and other such documentation as appropriate in order to evaluate whether current operational practices are being conducted in a manner consistent with the information upon which permitting has been based. The recordkeeping and reporting required ensure that practices which are not consistent with the submitted information will addressed in a timely manner.

11.6 MRRR **6M** – The monitoring has been designed to require periodic walk-around surveys as the most simple and direct method to determine the presence of such emissions. These surveys, in conjunction with a good faith effort on the part of the permittee to operate in accordance with the conditions of the AOP, are considered sufficient monitoring.

11.7 MRRR **7M** – The monitoring as specified has been designed based on the condition that all associated equipment is maintained in proper working condition. Using emission factors in conjunction with operational parameters is a feasible method of estimating emissions from an emission unit for which performance testing may not be feasible. The monitoring was designed with the goal of providing the permittee with sufficient opportunity to respond to upsets appropriately while at the same time avoiding significant environmental degradation.

Additionally, the periodic requirement to report the necessary data provides assurance that the facility has continued to operate and that the applicable New Source Review Orders have not become discontinued.

11.8 MRRR **8M** – This monitoring has been specified to include the estimation of emissions based on the use of emission factors as described above. In addition, periodic source testing has been added to the monitoring due to the size of the emission unit and the increased importance of emissions of the corresponding pollutants in relation to emissions of other pollutants.

11.9 MRRR **9M** – This MRRR establishes the minimum testing requirements that must be satisfied for natural gas fired boilers #1 and 2 at the College Avenue Steam Plant in order to establish reasonable assurance of compliance with associated limits.

11.10 MRRR **10M** – This MRRR establishes the minimum monitoring, recordkeeping, and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to natural gas fired boilers #1 and 2 at the College Avenue Steam Plant.

11.11 MRRR **11M** – This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the requirement to keep the O&M manual for boilers #1 and 2 at the College Avenue Steam Plant updated.

11.12 MRRR **12M** – This MRRR establishes the minimum monitoring, recordkeeping, and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the emission units located at the Grimes Way Steam Plant.

11.13 MRRR **13M** – This MRRR establishes the minimum testing requirements that must be satisfied for the emission units at the Grimes Way Steam Plant in order to establish reasonable assurance of compliance with associated limits.

11.14 MRRR **14M** – This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the requirement to keep the O&M manual for the emission units located at the Grimes Way Steam Plant updated.

11.15 MRRR **15M** – This MRRR establishes the minimum monitoring, recordkeeping, and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the incinerator.

11.16 MRRR **16M** – This MRRR establishes the minimum guidelines governing the testing requirements that must be satisfied for the incinerator in order to establish reasonable assurance of compliance with associated limits. The guidelines are included specifically as required by 40 CFR 60 and the NOC permit.

11.17 MRRR **17M** – This MRRR establishes the minimum guidelines governing the testing requirements that must be satisfied for the incinerator in order to establish reasonable assurance of compliance with associated limits. The guidelines are included specifically as required by 40 CFR 60 and the NOC permit.

11.18 MRRR **18M** – This MRRR establishes the minimum guidelines governing the testing requirements that must be satisfied for the incinerator in order to establish reasonable assurance of compliance with associated limits. The guidelines are included specifically as required by 40 CFR 60 and the NOC permit.

11.19 MRRR **19M** – This MRRR establishes the minimum monitoring, recordkeeping, and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the incinerator. The MRRR establishes the specific conditions which constitute a violation with regard to the incinerator operating parameters.

11.20 MRRR **20M** – This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the requirement to keep the O&M manual for the incinerator updated.

11.21 MRRR **21M** – This MRRR establishes the minimum monitoring, recordkeeping, and reporting information necessary for reasonable assurance of compliance with the appropriate testing requirements applicable to the incinerator.

11.22 MRRR **22M** – This MRRR establishes the equipment and operating procedures required in order to for reasonable assurance of compliance with the appropriate requirements applicable to the incinerator.

11.23 MRRR **23M** – Due to past observations of significant opacity emissions by Ecology personnel, past documented visible emissions in excess of 20% opacity, and the fact that significant and frequent visible emission monitoring has never been required for the Seed Processing Plant, the monitoring as specified is required to provide reasonable assurance of compliance with the opacity and grain loading standards.

11.24 MRRR **24M** – The monitoring has been designed to require periodic walk-around surveys and subsequent visible emissions testing using RM 9 as necessary as the most simple and direct method to determine the presence of such emissions. These surveys, in conjunction with a good faith effort on the part of the permittee to operate in accordance with the conditions of the AOP, are considered sufficient monitoring.

11.25 MRRR **25M** – This MRRR establishes the minimum monitoring, recordkeeping, and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the Compost Facility.

11.26 MRRR **26M** – This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the requirement to keep the O&M manual for the Compost Facility updated.

12.0 Streamlining Explanations

12.1 40 CFR 60.52c(a) – Emissions of particulate matter from the incinerator. This section of the CFR limits emissions of particulate matter from the incinerator to 0.015 grains per dry standard cubic foot, corrected to seven percent oxygen. This applicable requirement has not been included in the AOP because Order No. DE98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.2) that limits particulate matter emissions from the incinerator to 0.015 grains per dry standard cubic foot corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.2 40 CFR 60.52c(a) – Emissions of carbon monoxide from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of carbon monoxide to 40 ppm corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.3) that limits carbon monoxide emissions from the incinerator to 40 ppm corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.3 40 CFR 60.52c(a) – Emissions of dioxins/furans from the incinerator. This section of the CFR limits emissions of dioxins/furans from the incinerator to 0.26 grains per billion dry standard cubic foot, corrected to seven percent oxygen. This applicable requirement has not been included in the AOP because Order No. DE98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.2) that limits dioxin/furan emissions from the incinerator to 0.26 grains per billion dry standard cubic feet corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.4 40 CFR 60.52c(a) – Emissions of hydrogen chloride from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of hydrogen chloride to 15 ppm corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.5) that limits hydrogen chloride emissions from the incinerator to 15 ppm corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.5 40 CFR 60.52c(a) – Emissions of sulfur dioxide from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of sulfur dioxide to 55 ppm corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.6) that limits sulfur dioxide emissions from the incinerator to 55 ppm corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as

stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.6 40 CFR 60.52c(a) – Emissions of nitrogen oxides from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of nitrogen oxides to 250 ppm corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.7) that limits nitrogen oxides emissions from the incinerator to 250 ppm corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.7 40 CFR 60.52c(a) – Emissions of lead from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of lead to 0.03 grains per thousand dry standard cubic feet corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.8) that limits lead emissions from the incinerator to 0.03 grains per thousand dry standard cubic feet corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.8 40 CFR 60.52c(a) – Emissions of cadmium from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of cadmium to 0.02 grains per thousand dry standard cubic feet corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.9) that limits cadmium emissions from the incinerator to 0.020 grains per thousand dry standard cubic feet corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.9 40 CFR 60.52c(a) – Emissions of mercury from the incinerator – This section of the CFR applies to the WSU incinerator by limiting emissions of mercury to 0.24 grains per thousand dry standard cubic feet corrected to seven percent oxygen on a dry basis. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.10) that limits mercury emissions from the incinerator to 0.240 grains per thousand dry standard cubic feet corrected to seven percent oxygen on a dry basis. Since the condition included in the NOC order is clearly as stringent and is expressed in the same units as the requirement in §60.52c(a), it is appropriate to apply streamlining to this requirement.

12.10 40 CFR 60.52c(b) – Stack opacity from the incinerator – This section of the CFR applies to the WSU incinerator by limiting stack opacity to ten percent (10%) as averaged over six (6) minutes. This applicable requirement has not been included in the AOP because Order No. DE 98AQ-E124, 1st Amendment includes a condition (Approval Condition 3.1) that limits stack opacity to ten percent (10%) as averaged over six (6) minutes. Since the condition included in the NOC order is as stringent and is expressed in the same units as the requirement in §60.52c(b), it is appropriate to apply streamlining to this requirement.

13.0 Clarifications and Interpretations

13.1 Section 1 - Standard Conditions – For permit conditions required by Washington State regulations that have been included in the SIP, two dates are given. The first date is the date for the regulation that was adopted into the SIP. The second date is for the most up-to-date version of the regulation. State-only enforceable permit conditions are identified with the symbol (S).

13.2 WAC 173-401-620(1) – Acid Rain Provisions. The permittee currently is not an affected party as specified in the referenced section of the WAC. Due to this, no permit conditions relating to the acid rain provisions of the FCAA have been included in the AOP.

13.3 WAC 173-401-510(2)(h)(i) – Compliance Plan. A compliance plan has been included as section 4. of the AOP.

13.4 Administrative Order No. DE 97AQ-E157 – On November 24, 1997, the permittee was issued Administrative Order No. DE 97AQ-E157 regarding the installation of the new pathological waste incinerator. The actions outlined within this Order have been completed, and the new incinerator constructed. All required actions have been completed and do not represent ongoing requirements. No changes to the AOP were made.

13.5 Ecology Approved Emission Factors – Several Monitoring, Recordkeeping, and Reporting requirements require emissions calculations to be performed using emission factors that have been approved by Ecology. The determination as to whether emission factors are approvable is made in accordance with the guidance found in WAC 173-400-103(1), specifically that each emission factor must be a "published, verifiable emission factor that is applicable to the source." With regards to the emission factors utilized by the permittee, the emission factors included in the AOP renewal application have been found to be Ecology approvable. However, this does not preclude Ecology from requiring a modification in emission factors used as better information becomes available.

13.6 Condition 2.1.1 of AOP, Visible Emissions – WAC 173-400-040(1), (1)(a), and (1)(b) restrict visible emissions from all sources of air emissions throughout the source to 20% opacity for no longer than three (3) minutes in any one hour. While it is clear from the time periods contained within the regulation that Ecology Method 9A ("Source Test Manual – Procedures for Compliance Testing", State of Washington, Department of Ecology, 07/12/90) was the test method intended to be used to verify compliance, this permit has specified EPA Reference Method 9 as the test method utilized as part of MRRR **4M**. Ecology has determined that reasonable assurance of compliance with the regulation may be obtained by conducting RM 9 upon observance of visible emissions, as specified within **4M**.

13.7 Section 2.1 of AOP, Facility Wide – The requirements included under this section apply to all emission units facility wide with the exception of insignificant emission units as described under section 8.0 of this statement of basis. Emission unit specific requirements included in sections 2.2 through 2.13 of the AOP shall take precedence over requirements included in section 2.1 *with regard to monitoring, recordkeeping and reporting requirements*. For example, since the opacity of the exhaust from the Hospital/Medical/Infectious Waste Incinerator is required to be continually monitored using an opacity CEMS, the permittee is not required to perform monthly visual emissions surveys as required by **4M**.

13.8 Sulfur content of "pipeline quality" natural gas – Reasonable assurance of compliance with requirements contained within the AOP limiting emissions of sulfur compounds (SO_2) is

obtained through monitoring, recordkeeping, and reporting requirements that utilize published emission factors. Emission factors have been historically based on an assumption regarding the sulfur content of natural gas. Ecology may review the sulfur limits in permits if the sulfur content in natural gas supplies is found to be significantly higher than that used to determine SO_2 limits in this permit.

13.9 Incinerator operational parameters, three-hour rolling average – Limitations on operational parameters for the incinerator are stated in terms of a three-hour rolling average by 40 CFR 60, Subpart Ec as well as the NOC permit. Calculations for compliance evaluation therefore cannot be performed until the incinerator has been operating for at least three hours in order to provide the data necessary to calculate the three-hour rolling average for each operational parameter.

13.10 Incinerator Operating Parameters Clarification – Order No. DE 98AQ-E124, the construction permit for the incinerator, outlines the required operational parameters that must be monitored to provide assurance of compliance with the emission limitations. The incinerator has emission control equipment that includes a venturi scrubber (for particulate matter removal) and a packed column spray tower (for removal of acid gases). The packed column spray tower is referred to as the "condenser" in the WSU operation and maintenance manual. Depending on the interpretation of the wording within the Order, it could be read to require that liquor pH and pressure drop be monitored across both the venturi scrubber and the packed column spray tower.

The venturi scrubber removes particulate matter by accelerating the flue gas in the venturi throat, while water droplets are sprayed into the gas stream at a lower velocity. The pressure drop is a vital operational parameter since this reflects the velocity difference between the particulate matter in the gas stream and the water droplets, and thus gives an indication of the efficiency of the venturi scrubber. The liquid pH is not an operational parameter that would indicate the efficiency of the venturi since the particulate matter removal mechanism (as described above) is not significantly affected by liquid pH. Accordingly, Ecology wished to clarify that, for the venturi scrubber, the pressure drop is an important operational parameter and must be monitored, while the liquid pH is not an important operational parameter and need not be monitored.

The packed column spray tower removes acid gases from the flue gas and collects the acidic compounds in the packed column liquid. The packed column relies on maximizing the liquid to gas contact by causing the flue gas to flow through the packing material countercurrent to the direction of the liquid flow. Acid gas removal using a packed column relies on the fact that many acid gases are soluble in water, and through the liquid/gas contact, the acid gases are absorbed into the liquid and thus removed from the flue gas. Effective removal of acid gasses requires the pH of the packed column liquid to be basic ($pH > 7$) in order to facilitate removal of the acid gases. The liquid pH is a vital operational parameter since the packed tower liquid must be basic in order to facilitate removal of the acid gases. The pressure drop across the packed tower is not an operational parameter that would indicate the efficiency of the packed tower since the acid gas removal mechanism (as described above) is not significantly affected by the pressure drop. Accordingly, Ecology wished to clarify that, for the packed column spray tower, the liquid pH is an important operational parameter and must be monitored, while the pressure drop across the packed column is not an important operational parameter and need not be monitored.

Some requirements applicable to the incinerator include terms defined in 40 CFR 60, Subpart Ec – *Standards of Performance for Hospital/Medical/Infectious Waste Incinerators.* To avoid confusion and misinterpretation of applicable requirements, the regulatory definitions are listed below:

- *Hospital/medical/infectious waste incinerator* means any device that combusts any amount of hospital waste and/or medical/infectious waste.
- *Hospital waste* means discards generated at a hospital (limited to human patients), except unused items returned to the manufacturer.
- *Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or State standards for unrestricted release.
- *Maximum charge rate* means 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.
- *Maximum flue gas temperature* means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.
- *Medical/infectious waste means* any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals is listed in paragraphs (1) through (7) of this definition.
- *Medium HMIWI* means a continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour.
- *Minimum horsepower or amperage* means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.
- *Minimum pressure drop across the wet scrubber* means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.
- *Minimum scrubber liquor flow rate* means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.
- *Minimum scrubber liquor pH* means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.
- *Minimum secondary chamber temperature* means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, or dioxin/furan emission limits.
- [1]*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

13.11 MRRR 7M and 8M of AOP – The correction for oxygen content as prescribed by 7M and 8M should be performed according to the method outlined in 40 CFR 60 Appendix A, Reference Method 19.

13.12 Condition 3.4 of Order No. 03AQER-5744 – In discussion with the NOC permit engineer, it was clarified that the intent of this condition is to require the permittee to use operational data from

[1] This material would be classified as *medical/infectious waste* if it met the definition in §12.6

the Grimes Way Steam Plant emission units along with past testing results to estimate actual emissions over time periods, as well as to conduct visual emission monitoring in accordance with the requirements of the most recent AOP. There is an apparent conflict within the statement "Visible emission surveys shall be performed once per day as in the current WSU Air Operating Permit for Boilers No. 1 and No. 2." This condition shall be interpreted to mean that visible emission monitoring shall be conducted according to the requirements of the most recent AOP, not once per day.

13.13 BACT for RICE Generators at the Grimes Way Steam Plant – During the NOC permitting for the Grimes Way Steam Plant, the permittee elected to take operational limits on the three (3) RICE units in order to avoid installation of control technology that would reduce emissions of NO_X. This determination was made based primarily on economic impacts. The purpose of condition 2.8.15 of this AOP is to require that the BACT determination be reevaluated in the event that the permittee requests to increase any of the operational limits that apply to the RICE generators. The condition is meant to require that any new BACT evaluation be based on the total modified potential to emit from the unit(s), not just the increase in emissions resulting from the change in the operational limit.

13.14 Use of No. 1 Distillate Fuel at the Grimes Way Steam Plant – The NOC order approving the Grimes Way Steam Plant (Order No. 03AQER-5744) allows use of No. 2 distillate fuel. Ecology wishes to clarify that this language was not intended to prohibit use of No. 1 distillate fuel in place of No. 2 at the Grimes Way Steam Plant.

13.15 Incinerator Records Collection – Condition 15M 3) c) of the AOP incorporates the recordkeeping requirement originating from 40 CFR 60.58c(b)(3). The requirement specifies that records be kept which document "calendar days" for which required data has not been collected. The permittee has requested that Ecology clarify whether the records must identify the actual hours and times of the recordkeeping lapses or simply the whole day. Ecology's view is that the CFR requirement is simply to identify the calendar days when said recordkeeping lapses occur. However, if the records do not identify the specific duration and time of the lapses, it will be assumed that the lapse occurred for the duration of the day identified.

13.16 Incinerator Operating Parameter Reporting – Condition 15M 3) c) i) requires reporting of the highest and lowest values for incinerator operating parameters. The permittee has requested that Ecology clarify the averaging time for these highest and lowest values. Ecology's view is that the permittee should report values in terms of the frequency that they are recorded, as required under condition 15M 2) b). For example, since waste charge rate must be recorded once per hour, the permittee should report the highest and lowest one hour charge rate.

13.17 Incinerator Emergency and Bypass Stack Reporting – Condition 15M 3) c) v) and vii) require that the permittee report the nature and details of any emergency pertaining to the incinerator as well as any instance when the bypass stack is used. The permittee has requested that Ecology clarify whether these conditions apply only during normal operations or include startup, shutdown, and emergency conditions. 40 CFR 60.58c(d)(8) requires that *any* use of the bypass stack be reported. Ecology's view is that any emergencies must also be reported. The pertinent information should be reported within the monthly deviation reports as required by 15M 3) c) xv).

13.18 T-BACT for the Grimes Way Steam Plant – At the request of the permittee, the purpose of this note is to clarify that condition 2.3.17 of the AOP does not require emission testing for any TAP's not specifically cited within the testing requirements for the plant. This condition simply establishes the control equipment and procedures that have been established as T-BACT for various pollutants and pollutant groups.

14.0 Appendix A – University Map