



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

10354

Title V Operating Permit

PERMIT NUMBER: 3500063003

DATE OF PERMIT: May 20, 2015

Date of Last Revision: May 20, 2015

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

University of Utah
Building 605
125 South Fort Douglas Blvd
Salt Lake City, UT 84112

Permitted Location:

University of Utah
200 S University Ave
Salt Lake City, UT 84112

UTM coordinates: 429,440 m Easting, 4,512,800 m Northing
SIC code: 8221 (Colleges, Universities, & Professional Schools)

By:

Bryce C. Bird, Director

Prepared By:

Robert Grandy

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in
Section I: General Provisions of this permit.

Annual Certification Due: December 3, and on that date of every calendar year that this permit is in force.

Renewal application due: November 20, 2019

Permit expiration date: May 20, 2020

Definition of “prompt”: written notification within 14 days.

ABSTRACT

Emissions from the University of Utah are primarily due to the operation of: boilers, comfort heating equipment, and emergency generators.

Boilers located throughout the campus are covered by "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" found in 40 CFR Part 60 Subpart Dc. Two large boilers located in Building 303 predate those regulations.

A cogeneration unit located Building 303 is subject to "Standards of Performance for Stationary Combustion Turbines" found in 40 CFR, Part 60, Subpart KKKK.

Some emergency generators located on campus are subject to "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" found in 40 CFR part 60, subpart IIII and the "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" found in 40 CFR Part 63, Subpart ZZZZ.

For emissions units subject to the subparts of 40 CFR part 60, the general provisions of 40 CFR part 60 Subpart A apply. For emissions units subject to the subparts of 40 CFR part 63, the general provisions of 40 CFR part 63 Subpart A apply.

The University of Utah is a major source of carbon monoxide (CO) and oxides of nitrogen (NO_x).

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V renewal application (Project #OPP0103540019)	5/20/2015	-Renewal
Title V administrative amendment - enhanced AO (Project #OPP0103540018)	12/20/2013	<p>-Remove Boiler #5 rated 105 MMBtu/hr, Building 303</p> <p>-Add Boilers #5 and #6 each rated 50 MMBtu/hr, Building 303</p> <p>-Increase the combined capacity of small generators to 9,835 hp.</p> <p>-Add small diesel fired emergency generators to buildings: 372, 587, 892, Ambulatory Center Parking Structure, Student Life Center, School of Dentistry, Beverly T. Sorenson Arts and Ed Center.</p> <p>-Add large diesel fired emergency generators to buildings: 85, 151, 521/525, 526, 555, 556.</p> <p>-Add Ivor Thomas Lab Flash Iron-making including 3.78 MMBtu/hr Bench reactor system.</p>
Title V administrative amendment - enhanced AO (Project #OPP0103540017)	04/30/2013	<p>-Various administrative changes.</p> <p>-Incorporate changes to 40 CFR Part 63 subpart ZZZZ, and Part 60 subpart IIII.</p> <p>-Changes resulting from issuance of DAQE-AN103540024-13.</p> <p>-Replace 8.4 MMBtu/hr boiler (Building 853 Boiler) with two (2) 2 MMBtu/hr boilers.</p> <p>-Add another 13.5 MMBtu/hr boiler to Building 587.</p> <p>-Add Small Diesel Fired Emergency Generators to: buildings 112, 512, and 801.</p> <p>-Increase the combined capacity for Small Diesel Fired Emergency Generators from 7,144 hp, to 7,773 hp.</p> <p>-Increase the combined capacity for Large Diesel Fired Emergency Generators from 44,063 hp, to 47,250 hp.</p> <p>-Add the following generators subject to NSPS IIII and MACT ZZZZ: bldg 7 (197 hp); bldg 28 (42 hp); bldg 53 (103 hp); bldg 57 (232 hp); bldg 84 (162 hp); bldg 85 (1,848 hp); bldg 112 (232 hp); bldg 205 (42 hp); bldg 512 (103 hp);</p> <p>-Remove natural gas fired generator from building 500.</p>

		<p>-Change various natural gas limits on boilers to a site-wide limit of 1,624,680,000 Scf per rolling 12-month period.</p>
Title V administrative amendment - enhanced AO (Project #OPP0103540016)	01/25/2012	<p>-Changes resulting from issuance of DAQE-AN103540023-11.</p> <p>-Replaced 22 hp emergency gasoline fired generator at Building 84 with a 160 hp diesel powered emergency generator. This generator is classified as "new" under 40 CFR ZZZZ, and subject to that regulation.</p> <p>-Added 697 hp diesel fired emergency generator resulting from purchase of building 865.</p> <p>-Added 10 MMBtu natural gas fired boiler resulting from purchase of building 865.</p> <p>-Added Federal Register published revisions to 40 CFR part 63, ZZZZ and 40 CFR part 60, IIII.</p>
Title V administrative amendment - enhanced AO (Project #OPP0103540015)	08/29/2011	<p>Changes resulting from issuance of DAQE-AN0103540022-11:</p> <p>Added 20.67 MMBtu/hr NG boiler subject to NSPS, 40 CFR 60, Subpart Dc. Located in building 151.</p> <p>Added the following emergency generators subject to 40 CFR Part 60, Subpart IIII, NSPS Stationary CI IC Engines:</p> <p>Three (3) 1,175 hp emergency generators to building 151.</p> <p>One (1) 34 hp diesel fired emergency generator in the North Chiller Plant (building 149)</p> <p>One (1) 2,923 hp diesel fired emergency generator in the Skaggs Pharmacy (building 581)</p> <p>One (1) 229 hp diesel fired emergency generator in the Emergency Operations Center (building 801)</p> <p>One (1) 732 hp diesel fired emergency generator in the David Eccles School of Business (building 79)</p> <p>Added notification requirement for the new equipment pursuant with R307-401-18.</p> <p>Re-ordered the emissions unit list to match the AO</p> <p>Combined Huntsman Cancer Institute - NSPS Boilers and Huntsman Cancer Institute - Small Boilers.</p>

		<p>Removed the hours limit for the West Expansion Boilers.</p> <p>Added Building 582 (School of Pharmacy Building) Natural gas fired boiler that is rated at 17.0 MMBtu/hr. The boiler is subject to NSPS, 40 CFR 60, Subpart Dc.</p> <p>Renamed Diesel-Generators- each rated less than 600 Hp to Small Diesel Fired Emergency Generators. Changed the building numbers. Reduced combined capacity of the generators from 7,148 hp to 6,984 hp.</p> <p>Renamed Diesel-Generators- each rated more than 600 Hp to Large Diesel Fired Emergency Generators. Changed the building numbers. Increased combined capacity of the generators from 33,621 hp to 43,366 hp.</p> <p>Renamed Miscellaneous Natural Gas Fired Generators to Natural Gas Fired Emergency Generators.</p> <p>Revised the sulfur limit for diesel burning equipment to reflect new low sulfur standards.</p> <p>Added time restriction for maintenance checks and readiness testing on the new emergency generators located at the Sorenson Biotechnology Building 151 (USTAR)</p> <p>Revised natural gas limits for Building 303 Boilers. Changes: Added natural gas limit for Building 532 (University Hospital).</p> <p>Added natural gas limit for Building 151 (USTAR).</p> <p>Added natural gas limit for School of Pharmacy Building 582 emergency boiler.</p> <p>Added reviewer comment regarding GHG applicability.</p>
Title V renewal application (Project #OPP0103540014)	07/07/2010	Addition of more specific requirements for emergency generators subject to 40 CFR part 60, subpart IIII and 40 CFR part 63, subpart ZZZZ.
Title V administrative amendment - enhanced AO (Project #OPP0103540011)	01/18/2010	<p>Changes are being made from the replacement of AO DAQE-AN0103540019-08 with DAQE-AN0103540021-09.</p> <ol style="list-style-type: none"> 1. -Replacing the gasoline generator in Bldg 588 (nursing building) with a 399 hP diesel Generator. 2. - Adding one diesel emergency generator rated at 2,220 hP to Bldg 5 (Utah Museum of Natural History). 3. -Replacing the 13.5 MM Btu boiler in Building 526 with

		<p>a 25.2 MM Btu boiler (the new boiler will be located in building 532 of the Hospital West Expansion).</p> <p>4. -Revised building numbers.</p>
Title V administrative amendment - enhanced AO (Project #OPP0103540010)	07/03/2008	<p>Changes: are being made from the replacement of AO DAQE-AN0103540018-08 and consolidation of DAQE-AN03540012-06 to the new AO DAQE-AN0103540019-08.</p> <ol style="list-style-type: none"> 1. One NSPS natural gas fired boiler rated at 25.2 MMBtu is being added with the University Hospital West Expansion. 2. One diesel emergency generator rated at 78 hp is being added to building 892. 3. Diesel generators have been organized into two groups: greater than 600 hp, and less than 600 hp. 4. The number of University Hospital Ethylene Oxide Sterilizers has been corrected. 5. MACT requirement for reciprocating engines has been added (40 CFR part 63, subpart ZZZZ). 6. Review comment added regarding applicability of 40 CFR Part 63, Subpart HHHHHH to the paint booth.
Title V administrative amendment - enhanced AO (Project #OPP0103540009)	3/30/2009	<p>Changes are being made from the replacement of AO DAQE-AN0103540016-07 to the new AO DAQE-AN0103540018-08.</p> <p>The changes involve the installation of four additional generators. They will be located in the Humanities bldg, North Medical Towers bldg 701, Research Park bldg 874, and School of Social Work bldg 26.</p>
Title V administrative amendment - enhanced AO (Project #OPP0103540008)	03/05/2008	<p>The changes from the previous AO DAQE-AN0354014-07 to the new AO DAQE-AN0103540016-07, are:</p> <ol style="list-style-type: none"> 1. Add two natural gas fired boilers (Building 587) rated at up to 13.501 MMBtu/hr, each. 2. Add one natural gas fired boiler (Building 853) (Health Profession Education), rated at up to 8.369 MMBtu/hr. 3. Add one natural gas boiler (Building 523 Moran Eye Center), rated at up to 8.165 MMBtu/hr. 4. Add one natural gas boiler (Building 33 Rice Eccles Stadium), rated at up to 5.25 MMBtu/hr.

		<p>5. Add one diesel fired emergency backup generator (Building 1-Park Building), rated at 896 hp (668 kW).</p> <p>6. Replaced two dual fueled boilers (natural gas and coal Boilers #1 and #2, at Building 303 High Temperature Water Plant (HTWP)) with one natural gas fired turbine (Solar's SoLoNox TM) with waste heat recovery unit (WHRU) coupled with a supplementary natural gas fired duct burner. Electrical power generated by cogeneration unit will be only used by U of U facilities. However, if in the future U of U supplies more than one third of the gas turbine potential electrical output capacity to any power distribution system for sale, the gas turbine will be considered as utility unit.</p> <p>7. Removed references associated with coal use since the coal handling systems have been dismantled.</p> <p>8. After the cogeneration unit becomes operational stack testing for High Temperature Water Plant boilers #3-#5 will not be required due to their limited use as backup units to the cogeneration unit.</p> <p>9. Add Carpentry Shop Dust Collector in Building 350.</p> <p>10. Add two diesel fired emergency backup generators, each rated at 1000 kW, for Building 526 (Hospital Central Plant).</p> <p>11. Add one diesel fired emergency backup generator rated at 150 kW for Buildings 701 and 702 (Medical Towers).</p> <p>12. Add one diesel fired emergency generator in Bldg 12 (Sutton Building) rated 670 bhp,</p> <p>13. Add one small ethylene oxide sterilization unit with less than 1 ton of ethylene consumption,</p> <p>14. Changed natural gas fired emergency backup generators combined total from 620 kW to 300 kW, AO Condition 8.D</p> <p>15. Changed 10 percent opacity limit to 20 percent for diesel fired emergency generators for Rice-Eccles Stadium and Student Housing; AO Conditions 39 and 40. 10 percent was inadvertently put instead of 20 opacity limit.</p> <p>16. Removed one diesel fired emergency backup generator in Building 63 rated at 47 hp (35 kW).</p> <p>17. Removed listing of miscellaneous boilers with heat rating up to 5 MMBtu/hr.</p>
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		18. Removed hourly limits for all emergency generators for maintenance operations. Limit for the emergency use for electricity production only during periods when electric power from the utilities is interrupted, remains.
Title V administrative amendment by source	12/17/2006	Various changes made as noted in the Engineering Review comments at the end of this modified permit.
Title V administrative amendment by source (Project #OPP0103540004)	10/26/2006	Various changes made as noted in the Engineering Review comments at the end of this modified permit.
Title V administrative amendment by source (Project #OPP0103540003)	09/17/2006	Addition of nine emergency back-up generators.
Title V administrative amendment by source (Project #OPP0103540002)	01/10/2005	Consolidation of Approval Orders, removal of redundant conditions, addition of new equipment, addition of facilities newly under University control, deletion of facilities no longer under University control, and to update requirements. Further details are included in the review comments at the end of this permit.
Title V initial application (Project #OPP0103540001)	12/03/2002	

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A Federal Enforcement.

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B Permitted Activity(ies).

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C Duty to Comply.

- I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))
- I.C.2 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. (R307-415-6a(6)(b))
- I.C.3 The permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director 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 the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))
- I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D. **Permit Expiration and Renewal.**

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E. **Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Director takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Director any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F. **Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G. **Permit Fee.**

I.G.1 The permittee shall pay an annual emission fee to the Director consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H. **No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I. **Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J Inspection and Entry.

- I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director or an authorized representative to perform any of the following:
- I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))
- I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))
- I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))
- I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))
- I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K Certification.

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L Compliance Certification.

- I.L.1 Permittee shall submit to the Director an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))
- I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;
- I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;
- I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was

continuous or intermittent. The certification shall be based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

I.L.1.d Such other facts as the Director may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Director: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M **Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Director to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N **Emergency Provision.**

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the 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 preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

- I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))
- I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))
- I.N.2.c 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. (R307-415-6g(3)(c))
- I.N.2.d The permittee submitted notice of the emergency to the Director within two 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. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))
- I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))
- I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))
- I.O **Operational Flexibility.**
- Operational flexibility is governed by R307-415-7d(1).
- I.P **Off-permit Changes.**
- Off-permit changes are governed by R307-415-7d(2).
- I.Q **Administrative Permit Amendments.**
- Administrative permit amendments are governed by R307-415-7e.
- I.R **Permit Modifications.**
- Permit modifications are governed by R307-415-7f.
- I.S **Records and Reporting.**
- I.S.1 Records.
- I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

- I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))
- I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.
- I.S.1.b.2 The date analyses were performed.
- I.S.1.b.3 The company or entity that performed the analyses.
- I.S.1.b.4 The analytical techniques or methods used.
- I.S.1.b.5 The results of such analyses.
- I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.
- I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.
- I.S.2 Reports.
- I.S.2.a Monitoring reports shall be submitted to the Director every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))
- I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))
- I.S.2.c The Director shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit. Deviations from permit requirements due to breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))
- I.S.3 Notification Addresses.
- I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Director are to be sent to the following address or to such other address as may be required by the Director:
- Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000
- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Director:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications, applications, etc.:

Environmental Protection Agency, Region VIII
Office of Partnerships and Regulatory Assistance Air and Radiation Program
(mail code 8P-AR)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T Reopening for Cause.

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Director or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Director determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a 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. (R307-415-7g(2))

I.U Inventory Requirements.

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

Title IV and Other, More Stringent Requirements

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

- II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))
- II.A.1 **Permitted source**
(Source-wide)
- II.A.2 **Misc. Parts Washers (subject to R307-335-2)**
Miscellaneous parts washers located on campus using VOC containing solvents and subject to R307-335-2. Does not include parts washers using citrus based solvents.
- II.A.3 **Building 32 West Boiler (Rice-Eccles Stadium)**
Natural gas fired boiler rated at up to 14.7 MMBtu/hr. Subject to NSPS, 40 CFR, Part 60, Subpart Dc.
- II.A.4 **Building 33 Boiler (Clark Football Center)**
Natural gas fired boiler rated at 5.25 MMBtu/hr.
- II.A.5 **Building 151 (Sorenson Biotechnology Bldg - USTAR)**
Natural gas fired boiler that is rated at 20.67 MMBtu/hr. The boiler is subject to NSPS, 40 CFR 60, Subpart Dc.
- II.A.6 **Building 302 Boilers**
Three boilers (40 CFR, Part 60 Subpart Dc). These boilers all have 15% flue gas recirculation, and are fired on natural gas and diesel as a backup fuel. Rating for each boiler is up to 87.5 MMBtu/hr.
- II.A.7 **Building 303 Boilers- High Temperature Water Plant**
Two pre-NSPS boilers (3 & 4) that use natural gas only, each rated at up to 105 MMBtu/hr.
Two NSPS Boilers (5 & 6) that use natural gas, each rated up to 50 MMBtu/hr.
- II.A.8 **Building 303 (Cogeneration Unit).**
One natural gas fired Solar Taurus 70 T7800S (Solar's SoLoNox TM) turbine with one WHRU with duct burner rated at 85 MMBtu/hr. Natural gas turbine is site rated at 7.23 MW with heat input of 72.78 MMBtu/hr. Gas turbine and duct burner are Subject to NSPS, 40 CFR, Part 60, Subpart KKKK.
- II.A.9 **Building 350 Paint Booth and Print Plant**
Includes the paint booth located in Building 350 and equipment located in the printing plant, also located in Building 350.
- II.A.10 **Print Plant**
Printing operations including letter and offset presses.
- II.A.11 **Paint Booth**
Painting operation is used primarily for refinishing wood furniture. Equipped with particulate filters.
- II.A.12 **Building 350 Carpentry Shop Dust Collector**
One Carpentry Shop dust collector.

- II.A.13 **Buildings 521/525/526 Boilers -University Hospital**
Two pre-NSPS boilers supporting the University Hospital. Two boilers rated at up to 10.5 MMBtu/hr located in Building 521/525. One boiler rated up to 13.5 MMBtu/hr located in Building 526 is out of service.
- II.A.14 **Building 532 Boilers (University Hospital).**
Two (2) NSPS boilers (40 CFR, Part 60 Subpart Dc) located in Building 532. These boilers are fired on natural gas using diesel as a backup fuel. Rating for each boiler is up to 25.2 MMBtu/hr.
- II.A.15 **Building 523 Boiler (Moran Eye Center).**
One natural gas fired boiler rated at up to 8.165 MMBtu/hr.
- II.A.16 **Building 555 Boilers (Huntsman Cancer Institute).**
Two natural gas fired boilers that use diesel as backup, each rated at up to 16.8 MMBtu/hr. Subject to NSPS, 40 CFR, Part 60, Subpart Dc.

And two small natural gas fired boilers, that use diesel as backup, each rated at up to 5 MMBtu/hr.
- II.A.17 **Building 556 Boilers (Huntsman Cancer Hospital)**
Two boilers with heat input ratings of up to 6 MMBtu each, fired on either natural gas or fuel oil.
- II.A.18 **Building 565 Boiler- Emma-Eccles-Jones Medical Res**
One boiler with input rating of up to 19 MMBtu, fired on natural gas. This boiler is subject to NSPS, 40 CFR, Part 60, Subpart Dc
- II.A.19 **Building 853 Boiler (Health Professions Education)**
Two (2) natural gas fired boilers that are rated up to 2.0 MMBtu/hr each.
- II.A.20 **Building 581 Boiler (School of Pharmacy Building)**
Natural gas fired boiler that is rated at 17.0 MMBtu/hr. The boiler is subject to NSPS, 40 CFR 60, Subpart Dc.
- II.A.21 **Building 865 Boiler**
One pre-NSPS natural gas fired boiler with heat input rating of 10 MMBtu.
- II.A.22 **Building 587 Boilers**
Two natural gas fired boilers with heat input ratings of 13.5 MMBtu (each). Subject to NSPS, 40 CFR, Part 60, Subpart Dc.
- II.A.23 **Bldg 550 (Clinical Neurosciences Center)**
A boiler listed for identification purposes that is on-site but out of service.
- II.A.24 **Small Diesel Fired Emergency Generators**
Diesel-fired emergency generators, each rated less than 600 Hp, located at:
Buildings 4, 7, 13, 14, 19, 25, 26, 28, 35, 45, 49, 53, 57, 64, 66, 82, 84, 85, 95, 112, 149, 197, 205, 210, 212, 213, 301, 305, 347, 372, 500, 512, 523, 540, 575, 585, 587, 588, 701, 702, 801, 815, 821, 874, 892, Ambulatory Care Center parking structure, Student Life Center, School of Dentistry, and Beverly T. Sorenson Arts & Ed Center.
The emergency generators listed above have a combined capacity of 9,835 hp.
- II.A.25 **Large Diesel Fired Emergency Generators**
Diesel-fired emergency generators supporting the following buildings that are each rated greater than 600 Hp:

Buildings 1, 12, 32, 62, 79, 85, 86, 151, 179, 302, 303, 521/525, 523, 526, 533, 550, 555, 556, 565, 570, 581, 587, 853, 865, 872, and 892.

The emergency generators listed above have a combined capacity of up to 47,250 hp.

- II.A.26 **Generators subject to NSPS IIII and MACT ZZZZ.**
These generators are identified later in this permit along with their specific requirements from NSPS IIII and MACT ZZZZ.
- II.A.27 **Natural Gas Fired Emergency Generators**
Natural gas fired emergency generators with a combined rating of 300 kW. Currently installed natural gas-fired generators are located at Buildings 64, 67, 350, and 685.
- II.A.28 **Olympic Cauldron**
This is a seldom used ornamental monument from the Salt Lake 2002 Olympics (listed for identification purposes only).
- II.A.29 **Fume Hoods**
Fume hoods located in various labs throughout the campus. (listed for identification purposes only).
- II.A.30 **Small Fuel Storage Tanks**
Various fuel tanks located throughout the campus that have no federal applicable requirements; each tank has a storage capacity of 10,000 gallons or less. No unit-specific applicable requirements (listed for identification purposes only).
- II.A.31 **Underground Fuel Storage Tanks**
Located at University Hospital. Two Diesel tanks approximately 20,000 gallons each, one diesel tank approximately 30,000 gallons, and one jet fuel tank approximately 12,000 gallons. No unit specific requirements.
- II.A.32 **University Hospital Ethylene Oxide Sterilizer**
One small sterilization unit using less than 1 ton of ethylene oxide a year (each). Units must comply with the emission standards of 40 CFR 63 Subpart WWWW (National Emission Standards for Hospital Ethylene Oxide Sterilizers).
- II.A.33 **Ivor Thomas Lab Flash Ironmaking**
One 3.78 MMBtu/hr Bench reactor system. No unit specific requirements.

II.B **Requirements and Limitations**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on permitted source (Source-wide).**

II.B.1.a **Condition:**

The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners. [Authority granted under 40 CFR 82.30(b); condition originated in 40 CFR 82 Subpart B].

II.B.1.a.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.

II.B.1.a.2 **Recordkeeping:**

All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.a.3 **Reporting:**

All reports required in 40 CFR 82, Subpart B shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.b **Condition:**

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Authority granted under 40 CFR 82.150(b); condition originated in 40 CFR 82 Subpart F].

II.B.1.b.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.b.2 **Recordkeeping:**

All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.b.3 **Reporting:**

All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.c

Condition:

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected emission unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under R307-401-8(2) and 40 CFR 60.11(d); condition originated in R307-401-8(2) and 40 CFR 60.11(d)].

II.B.1.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.1.c.2

Recordkeeping:

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.d

Condition:

The permittee shall notify the Director in writing when the following equipment has been installed:

Bldg 372 (88 hp), Bldg 587 (268 hp), the Ambulatory Care Center parking structure (382 hp), the Student Life Center (382 hp), School of Dentistry (232 hp), and the Beverly T. Sorenson Arts & Education Center (308 hp)

Boilers: Bldg 303 two (2) 50.0 MMBtu/hr (each) natural gas fired boilers (Boilers 5 & 6)

If construction and/or installation have not been completed by March 30, 2015, the Director shall be notified in writing on the status of the construction and/or installation. At that time, the Director shall require documentation of the continuous construction and/or installation of the operation and may revoke the underlying AO DAQE-AN103540025-13.

[Authority granted under R307-401-18; condition originated in R307-401-18].

II.B.1.d.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.1.d.2

Recordkeeping:

Records of the above referenced notices shall be maintained.

II.B.1.d.3

Reporting:

To ensure proper credit when notifying the Director, send your correspondence to the Director, attn: Compliance Section.

- II.B.1.e Condition:**
- The U of U shall only burn No.1-D S15 or No.2-D S15 fuel oil or better in all equipment permitted for diesel/fuel oil combustion.
- [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN103540025-13].
- II.B.1.e.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.e.2 Recordkeeping:**
- To demonstrate compliance, fuel records shall be kept for all periods when the facility is in operation indicating purchase of No.1-D S15, No.2D S15, Ultra-Low Sulfur, or ULSD fuel.
- II.B.1.e.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.f Condition:**
- Unless stated otherwise in this permit, emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted.
- [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN103540025-13].
- II.B.1.f.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.f.2 Recordkeeping:**
- Records shall be maintained for each generator including: dates of use, reason for use (maintenance, emergency, other), and the duration in the hours of the generator usage.
- II.B.1.f.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.g Condition:**
- The U of U shall not exceed 1,624,680,000 Scf natural gas consumption per rolling 12-month period for all natural gas fired boilers heat rated at 5.0 MMBtu/hr or greater.
- [Authority granted under R 307-401-8(1)(a)[BACT]; condition originated in DAQE-AN103540025-13].
- II.B.1.g.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.

II.B.1.g.2

Recordkeeping:

To demonstrate compliance with a rolling 12-month total, no later than 25 days after the end of each month, a new 12-month total shall be calculated using data from the previous 12 months. Monthly calculations shall be made no later than 25 days after the end of each calendar month based on natural gas fuel purchasing records. The records of consumption shall be kept on a monthly basis.

II.B.1.g.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.h

Condition:

All heat rated boilers 5.0 MMBtu/hr or greater on campus shall be fired on natural gas only except for the following boilers:

- A. Buildings 521, 525, & 532 - University Hospital Boilers
- B. Building 302 boilers 1-3 - HTWP Boilers
- C. Building 555 - Huntsman Cancer Institute Boilers
- D. Building 556 - Huntsman Cancer Hospital Boilers 1-2

These boilers shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings, boiler systems and natural gas pipe lines maintenance and repair and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the U of U. Maintenance firings shall not exceed one percent of the previous year's Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st.

[Authority granted under R 307-401-8(1)(a)[BACT]; condition originated in DAQE-AN103540025-13.]

II.B.1.h.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.1.h.2

Recordkeeping:

To demonstrate compliance, fuel records shall be kept for all periods when a boiler combusts a fuel other than natural gas.

II.B.1.h.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2 **Conditions on Misc. Parts Washers (subject to R307-335-2).**

II.B.2.a **Condition:**

The permittee shall ensure that the following conditions are met:

(1) Each solvent degreaser is equipped with a cover which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if

(a) the volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),

(b) the solvent is agitated, or

(c) the solvent is heated.

(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Waste or used solvent shall be stored in covered containers. Waste solvents or waste materials which contain solvents shall be disposed of by recycling, reclaiming, by incineration in an incinerator approved to process hazardous materials, or by an alternate means approved by the Director.

(4) Tanks, containers and all associated equipment shall be maintained in good operating condition and leaks shall be repaired immediately or the degreaser shall be shutdown.

(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment.

(6) If the solvent volatility is greater than 4.3 kPa (33 mm Hg or 0.6 psi) measured at 38 degrees C (100 degrees F), or if solvent is heated above 50 degrees C (120 degrees F), then one of the following control devices shall be used:

(a) freeboard that gives a freeboard ratio greater than 0.7;

(b) water cover if the solvent is insoluble in and heavier than water;

(c) other systems of equivalent control, such as a refrigerated chiller or carbon absorption.

(7) If used, the solvent spray shall be a solid fluid stream at a pressure which does not cause excessive splashing and may not be a fine, atomized or shower type spray.

[Authority granted under R307-335-4; condition originated in R307-335-4]

II.B.2.a.1 **Monitoring:**

A visual observation shall be conducted monthly for all equipment and applicable work practices.

- II.B.2.a.2 **Recordkeeping:**
- Results of monthly inspections and the volatility of the solvent(s) being used shall be recorded and maintained as described in Provision I.S.1 of this permit.
- II.B.2.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.3 **Conditions on Building 32 West Boiler (Rice-Eccles Stadium).**
- II.B.3.a **Condition:**
- Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.3.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.3.a.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.
- II.B.3.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.3.b **Condition:**
- The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.3.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.3.b.2 **Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.3.b.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

- II.B.3.c **Condition:**
- The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.3.c.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.3.c.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.3.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.4 **Conditions on Building 33 Boiler (Clark Football Center).**
- II.B.4.a **Condition:**
- Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.4.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.4.a.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.
- II.B.4.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.5 **Conditions on Building 151 (Sorenson Biotechnology Bldg - USTAR).**
- II.B.5.a **Condition:**
- The U of U may operate the three (3) diesel fired 1,175 hp emergency generators located at the Sorenson Biotechnology Building 151 (USTAR) for the purpose of maintenance checks and readiness testing, provided that no more than one (1) emergency generator shall be in operation at a time, unless a loss of electrical power to the site necessitates the use of the emergency generators for power production.
- [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

- II.B.5.a.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.5.a.2 Recordkeeping:**
- Records documenting usage shall be kept for each generator showing dates of use, duration of use, and the reason for use (i.e. maintenance checks, readiness testing, or emergency).
- II.B.5.a.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.5.b Condition:**
- For the boiler, the permittee shall keep monthly records of the amounts of each fuel combusted. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.5.b.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.5.b.2 Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.5.b.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.5.c Condition:**
- For the boiler, the permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)].
- II.B.5.c.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.5.c.2 Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.5.c.3 Reporting:**
- The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.5.d **Condition:**

Visible emissions from the boiler shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.5.d.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.5.d.2 **Recordkeeping:**

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.5.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6 **Conditions on Building 302 Boilers.**

II.B.6.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.6.a.1 **Monitoring:**

While burning natural gas, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

An opacity observation shall be made during each semi-annual period* when fuel oil is burned. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

* Semi-annual periods are defined as the periods from January 1st through June 30 th, and July 1st through December 31 st, of each year.

II.B.6.a.2 **Recordkeeping:**

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

- II.B.6.a.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.6.b Condition:**
- The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.6.b.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.6.b.2 Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.6.b.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.6.c Condition:**
- The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A.
- [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)]
- II.B.6.c.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.6.c.2 Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.6.c.3 Reporting:**
- The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.
- II.B.7 Conditions on Building 303 Boilers (High Temperature Water Plant).**
- II.B.7.a Condition:**
- Emissions of NO_x from each of Building 303-Boilers 3-4 shall not exceed 25.0 lb/hr and 187 ppmdv (3% O₂ dry).
- Emissions of NO_x from each of Building 303-Boilers 5-6 shall not exceed 0.25 lb/hr and 9.0 ppmdv (3% O₂ dry).
- [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.7.a.1

Monitoring:

Building 303-Boilers 3-6 shall be tested as follows:

- A. Stack testing frequency: at least every 3 years based on the date of the last stack test.
- B. Sample location: 40 CFR 60, Appendix A, Method 1. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Director. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
- C. Volumetric flow rate: 40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Director.
- D. Stack testing methods: NO_x: 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E or other testing methods approved by the Director.
- E. Calculations: To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
- F. Heat input capacity during testing: The heat input capacity during testing shall be no less than 90% of the maximum heat input capacity achieved in the previous three (3) years.

II.B.7.a.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.7.a.3

Reporting:

Notification: At least 10 days prior to conducting stack testing, the permittee shall notify the Director of the date, time and place of such testing. A source test protocol shall be submitted along with the testing notification sent to the Director by October 1 of each year. The source test protocol shall be approved by the Director prior to testing. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used.

A pretest conference shall be held, if directed by the Director. The pretest conference shall include representation from the permittee, the tester, and the Director.

Sample location: The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Director. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

- II.B.7.b Condition:**
- Visible emissions from boilers 3-6 shall be no greater than 10 percent opacity.
- [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.7.b.1 Monitoring:**
- Natural gas usage shall be verified in lieu of monitoring via visible emissions observations.
- II.B.7.b.2 Recordkeeping:**
- Records of fuel usage shall be maintained to document periods during which natural gas has been burned.
- II.B.7.b.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.7.c Condition:**
- For Boilers 5 & 6 the permittee shall keep monthly records of the amounts of each fuel combusted.
- [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.7.c.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.7.c.2 Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.7.c.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.7.d Condition:**
- For Boilers 5 & 6 the permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A.
- [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)]
- II.B.7.d.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.7.d.2 Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.7.d.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.8

Conditions on High Temperature Water Plant Cogeneration Unit.

II.B.8.a

Condition:

Emissions from the Natural gas turbine and the WHRU duct burner shall not exceed the following:

- A. Natural gas turbine only: NO_x 2.65 lb/hr and 9 ppmdv (15% O₂ dry) per 3-test run average.
- B. Natural gas turbine only: CO 4.48 lb/hr and 25 ppmdv (15% O₂ dry) per 3-test run average.
- C. Natural gas turbine and WHRU duct burner: NO_x 8.97 lb/hr and 15 ppmdv (15% O₂ dry) per 3-test run average.
- D. Natural gas turbine and WHRU duct burner: CO 10.84 lb/hr and 30 ppmdv (15% O₂ dry) per 3-test run average.

[Authority granted under R307-401-8(1)(a) [BACT] and 40 CFR Part 60 Subpart KKKK ; condition originated in DAQE-AN103540025-13].

II.B.8.a.1

Monitoring:

- A. Stack testing frequency for gas turbine alone and for gas turbine and WHRU duct burner combined: annually between the dates December 1 and February 29. The Director may require testing at any time.
- B. Sample location: The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
- C. Volumetric flow rate: 40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Executive Secretary.
- D. Stack testing methods for Nitrogen Oxides (NO_x): 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E or other testing methods approved by the Executive Secretary.
- E. Stack testing methods for carbon monoxide (CO): 40 CFR 60, Appendix A, Method 10, or other testing methods approved by the Executive Secretary.
- F. Calculations: To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
- G. Heat input capacity during testing: The heat input capacity during testing shall be no less than 90% of the maximum heat input capacity achieved in the previous three (3) years.

II.B.8.a.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.8.a.3

Reporting:

Notification: At least 10 days prior to conducting stack testing, the permittee shall notify the Director of the date, time and place of such testing. A source test protocol shall be submitted along with the testing notification sent to the Director by October 1 of each year. The source test protocol shall be approved by the Director prior to testing. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director. The pretest conference shall include representation from the permittee, the tester, and the Director. Sample location: The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Director. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status.

There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.b

Condition:

Visible emissions shall be no greater than 10 percent opacity.

[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.8.b.1

Monitoring:

Recordkeeping shall serve as monitoring.

II.B.8.b.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.8.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.c

Condition:

The turbine and duct burner shall burn natural gas which contains 20 grains of sulfur or less per 100 standard cubic feet and has potential sulfur emissions of less than less than 26 ng SO₂/J (0.060 lb SO₂/MMBtu) heat input

[Authority granted under 40 CFR Part 60 Subpart KKKK; condition originated in 40 CFR Part 60.4330(a)(2) and 60.4365(a)].

- II.B.8.c.1 **Monitoring:**
- Recordkeeping for this permit condition shall serve as monitoring.
- II.B.8.c.2 **Recordkeeping:**
- The permittee shall demonstrate compliance by maintaining records specifying the maximum total sulfur content for natural gas combusted. Acceptable records include: valid contracts, tariff sheets or transportation contracts for the fuel. [40 CFR 60.4365(a)].
- II.B.8.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.8.d **Condition:**
- For the turbine and duct burner, the permittee shall comply with all applicable requirements of 40 CFR 60, Subpart A: General Provisions.
- [Authority granted under 40 CFR Part 60 Subpart A ; condition originated in 40 CFR Part 60 Subpart A].
- II.B.8.d.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.8.d.2 **Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.8.d.3 **Reporting:**
- The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.
- II.B.9 **Conditions on Building 350 Paint Booth and Print Plant.**
- II.B.9.a **Condition:**
- Combined emissions of VOC from the Paint Booth and Print Plant shall not exceed 5.0 tons per rolling 12-month period. Combined HAP emissions from the Paint Booth and Print Plant shall not exceed 1.0 tons per rolling 12-month period. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN103540025-13].
- II.B.9.a.1 **Monitoring:**
- Emissions shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data. Monthly calculations shall be made no later than 20 days after the end of each calendar month.

II.B.9.a.2

Recordkeeping:

VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The records shall include the following data for each material used:

1. Name of the VOC or HAP emitting material, such as; paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.
2. Density of each material used (pounds per gallon).
3. Percent by weight of VOC and HAP in each material used.
4. Gallons of each VOC and HAP emitting material used each month.
5. The amount of VOC and individual HAP emitted monthly by each material used, calculated by the following procedure:

$$\text{VOC} = \frac{(\% \text{ VOC by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times (\text{Gal Consumed}) \times \frac{(1 \text{ ton})}{(2,000 \text{ lb})}$$

$$\text{HAP} = \frac{(\% \text{ HAP by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times (\text{Gal Consumed}) \times \frac{(1 \text{ ton})}{(2,000 \text{ lb})}$$

6. The total amount of VOC and HAP emitted monthly from all materials used.
7. The amount of VOC and HAP reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above, to provide the monthly total VOC and HAP emissions.

II.B.9.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10

Conditions on Print Plant.

II.B.10.a

Condition:

Solvent wiping cloths shall be kept in covered containers when not in use. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN103540025-13].

II.B.10.a.1

Monitoring:

Daily inspections shall be conducted to ensure that solvent laden rags are stored in closed containers when not in use.

II.B.10.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

- II.B.10.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.10.b **Condition:**
- Solvents containing volatile organic compounds (VOC) shall be kept in covered containers when not in use. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN103540025-13].
- II.B.10.b.1 **Monitoring:**
- Daily inspections shall be conducted to ensure that VOC containing solvents are stored in closed containers when not in use.
- II.B.10.b.2 **Recordkeeping:**
- Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.10.b.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.11 **Conditions on Paint Booth.**
- II.B.11.a **Condition:**
- Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.11.a.1 **Monitoring:**
- In lieu of monitoring via visible emissions observations, the spray booth particulate capture system shall be inspected before each use to verify that it is functioning properly. Inspections shall consist of the following observations:
- (A) Inspection for holes in the particulate filters.
 - (B) Inspection of the particulate filters to determine proper installation within the support rack.
 - (C) Inspection of the exhaust fan to ensure that it is operating.
- II.B.11.a.2 **Recordkeeping:**
- Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.11.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.12 **Conditions on Building 350- Carpentry Shop Dust Collector.**

II.B.12.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity except for operation not exceeding 3 minutes in any hour.[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.12.a.1 **Monitoring:**

Opacity observations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.12.a.2 **Recordkeeping:**

A log of opacity determinations shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.12.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.12.b **Condition:**

Operation of the carpentry shop dust collector shall not exceed 1043 hours per rolling 12-month period. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13]

II.B.12.b.1 **Monitoring:**

Hours of operation shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data.

II.B.12.b.2 **Recordkeeping:**

Monthly records documenting dust collector usage shall be kept in a log maintained by the Carpentry Shop Supervisor. Records shall show the date and the duration in hours of dust collector usage.

II.B.12.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.13 **Conditions on Buildings 521/525/526 Boilers-University Hospital.**

II.B.13.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.13.a.1

Monitoring:

While burning natural gas, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

An opacity observation shall be made during each semi-annual period* when fuel oil is burned. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

* Semi-annual periods are defined as the periods from January 1st through June 30 th, and July 1st through December 31 st, of each year.

II.B.13.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.13.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.14

Conditions on Building 532 Boilers (University Hospital).

II.B.14.a

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.14.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.14.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.14.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

- II.B.14.b **Condition:**
- The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.14.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.14.b.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.14.b.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.14.c **Condition:**
- The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)].
- II.B.14.c.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.14.c.2 **Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.14.c.3 **Reporting:**
- The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.
- II.B.15 **Conditions on Building 523 Boiler (Moran Eye Center).**
- II.B.15.a **Condition:**
- Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.15.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.15.a.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.15.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.16

Conditions on Building 555 Boilers (Huntsman Cancer Institute).

II.B.16.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.16.a.1

Monitoring:

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.16.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.16.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.16.b

Condition:

For the 16.8 MMBtu/hr NSPS boilers, the permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN103540025-13].

II.B.16.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.16.b.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.16.b.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.16.c

Condition:

For the 16.8 MMBtu/hr NSPS boilers, the permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].

II.B.16.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.16.c.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.16.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.17

Conditions on Building 556 Boilers (Huntsman Cancer Hospital).

II.B.17.a

Condition:

Visible emissions shall be no greater than 10 percent opacity.

[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.17.a.1

Monitoring:

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.17.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage. For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.17.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.18

Conditions on Building 565 Boiler (Emma -Eccles-Jones Medical Research Center).

II.B.18.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.18.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.18.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.18.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.18.b

Condition:

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)].

II.B.18.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.18.b.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.18.b.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.18.c

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].

II.B.18.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

- II.B.18.c.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.18.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.19 **Conditions on Building 853 Boiler (Health Profession Education).**
- II.B.19.a **Condition:**
- Visible emissions from the boiler shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.19.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.19.a.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.
- II.B.19.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.20 **Conditions on Building 581 Boiler (School of Pharmacy Building).**
- II.B.20.a **Condition:**
- The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].
- II.B.20.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.20.a.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.20.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

- II.B.20.b **Condition:**
- The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)].
- II.B.20.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.20.b.2 **Recordkeeping:**
- All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.20.b.3 **Reporting:**
- The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.
- II.B.20.c **Condition:**
- Visible emissions from the boiler shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.20.c.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.20.c.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.
- II.B.20.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.21 **Conditions on Building 865 Boiler.**
- II.B.21.a **Condition:**
- Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.21.a.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.21.a.2 **Recordkeeping:**
- In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.21.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.22

Conditions on Building 587 Boiler.

II.B.22.a

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.22.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.22.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.22.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.22.b

Condition:

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in 40 CFR 60 (Subpart A)].

II.B.22.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.22.b.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.22.b.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.22.c

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted each day. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)].

- II.B.22.c.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.22.c.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.22.c.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.23 **Conditions on Small Diesel Fired Emergency Generators.**
- II.B.23.a **Condition:**
- Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.23.a.1 **Monitoring:**
- Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.23.a.2 **Recordkeeping:**
- A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.
- II.B.23.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.24 **Conditions on Large Diesel Fired Emergency Generators.**
- II.B.24.a **Condition:**
- Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour.
- [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].
- II.B.24.a.1 **Monitoring:**
- Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.24.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.24.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25

Conditions on Generators Subject to NSPS IIII and MACT ZZZZ.

II.B.25.a

Condition:

The following Pre-2007 model year emergency generators shall comply with the emission standards in 40 CFR Part 60, Subpart IIII, Table 1:

Building 85, emergency generator, 168 Hp.
Building 526, emergency generator, 1475 Hp.
Building 526, emergency generator, 1475 Hp.

[Origin: 40 CFR 60.4205(a); Authority: 40 CFR Part 60, Subpart IIII].

The following emergency generators are 2007 model year and later and shall comply with the emission standards for new non-road CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power:

Building 7, emergency generator, 197 Hp.
Building 12, emergency generator, 670 Hp.
Building 25, emergency generator, 232 Hp.
Building 26, emergency generator, 78 Hp.
Building 28, emergency generator, 42 Hp.
Building 45, emergency generator, 325 Hp.
Building 53, emergency generator, 103 Hp.
Building 57, emergency generator, 232 Hp.
Building 57, emergency generator, 134 Hp.
Building 62, emergency generator, 804 Hp.
Building 64, emergency generator, 373 Hp.
Building 79, emergency generator, 732 Hp.
Building 84, emergency generator, 1602 Hp.
Building 85, emergency generator, 900 Hp.
Building 85, emergency generator, 1,848 Hp.
Building 86, emergency generator, 2011 Hp.
Building 95, emergency generator, 268 Hp.
Building 112, emergency generator, 232 Hp.
Building 149, emergency generator, 34 Hp.
Building 151, emergency generator, 1175 Hp.
Building 151, emergency generator, 1175 Hp.
Building 151, emergency generator, 1175 Hp.
Building 205, emergency generator, 42 Hp.
Building 301, emergency generator, 80 Hp.
Building 303, emergency generator, 804 Hp.
Building 305, emergency generator, 27 Hp.
Building 372, emergency generator, 88 Hp.

Building 512, emergency generator, 103 Hp.
Building 581, emergency generator, 2923 Hp.
Building 587, emergency generator, 268 Hp
Building 588, emergency generator, 335 Hp.
Building 701, emergency generator, 201 Hp.
Building 702, emergency generator, 201 Hp.
Building 801, emergency generator, 229 Hp.
Building 853, emergency generator, 757 Hp.
Building 892, emergency generator, 78 Hp.
Ambulatory Care Center Parking Structure, emergency generator, 382 Hp.
Student Life Center, emergency generator, 382 Hp.
School of Dentistry, emergency generator, 232 Hp.
Beverly T. Sorenson Arts & Education Center, emergency generator, 308 Hp.

[Origin: 40 CFR 60.4205(b); Authority: 40 CFR Part 60, Subpart IIII referenced through 40 CFR Part 63, Subpart ZZZZ].

II.B.25.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.25.a.2

Recordkeeping:

Records of engine certifications shall be maintained indicating compliance with the above referenced standards. Records may include labels attached to engines indicating conformance with U.S. EPA regulations for the appropriate year.

Records shall be maintained demonstrating compliance with the manufacturer's specifications for engine installation and configuration. [40 CFR 60 Subpart IIII]

Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.25.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25.b

Condition:

Emergency generators and control devices (if any) in this group shall be operated and maintained according to the manufacturer's emissions-related written instructions, over the entire life of the engine. The permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the requirements of 40 CFR part 89, as they apply.

[Origin: 40 CFR 60.4206, 40 CFR 60.4211(a)(1)-(3), Authority: 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ.]

II.B.25.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.25.b.2

Recordkeeping:

Records demonstrating proper operation and maintenance shall be maintained.

Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.25.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25.c

Condition:

Emergency generators in this group shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

[Origin: 40 CFR 60.4207(b); Authority: 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ.]

II.B.25.c.1

Monitoring:

The permittee shall either:

- (1) Determine the fuel sulfur content expressed as wt% in accordance with the methods of the American Society for Testing Materials (ASTM);
- (2) Inspect the fuel sulfur content expressed as wt% determined by the vendor using methods of the ASTM; or
- (3) Inspect documentation provided by the vendor that directly or indirectly demonstrates compliance with this provision.

II.B.25.c.2

Recordkeeping:

Fuel receipt records and documentation demonstrating compliance with this provision shall be maintained. [40 CFR 60 Subpart IIII].

Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.25.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25.d

Condition:

Each emergency generator shall be operated according to paragraphs (i) through (iii) below. Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (i) through (iii), is prohibited. Engines not operated according to the requirements in paragraphs (i) through (iii), will not be considered emergency engines and will be subject to requirements for non-emergency engines.

- (i) There is no time limit on the use of emergency engines in emergency situations.

(ii) Emergency engines may be used for any combination of the purposes specified in paragraphs (a) through (c) below for a maximum of 100 hours per calendar year.

(a) Emergency engines may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(b) Reserved.

(c) Periods of voltage or frequency deviations: Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(iii) Emergency engines may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (ii) above.

[Origin: 40 CFR 60.4211(f); Authority: 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 60, Subpart III.]

II.B.25.d.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.25.d.2

Recordkeeping:

Records of monitoring shall be kept on a monthly basis in an operation and maintenance log. Records shall distinguish between maintenance-related hours and emergency use-related hours. If maintenance and testing beyond 100 hours per year are required by Federal, State, or local standards, records of these standards shall also be kept. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4211(e), and 40 CFR 60.4214(b)].

II.B.25.d.3

Reporting:

Emergency engines with a maximum engine power more than 100 HP that operate or are contractually obligated to be available for more than 15 hours per calendar year for the purposes specified above in conditions (ii)(b)-Emergency demand response and (ii)(c)-Periods of voltage or frequency deviations, or that operate for the purposes specified in the above condition (iii) Financial arrangements with another entity, require submittal of an annual report according to the requirements of 40 CFR Part 60.4214(d)(1)-(3).

There are no other reporting requirements for this provision except those specified in Section I of this permit.

II.B.26 **Conditions on Natural Gas Fired Emergency Generators.**

II.B.26.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN103540025-13].

II.B.26.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.26.a.2 **Recordkeeping:**

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.26.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.27 **Conditions on University Hospital Ethylene Oxide Sterilizer.**

II.B.27.a **Condition:**

The permittee shall comply with the applicable requirements of 40 CFR 63 Subpart WWWW (National Emission Standards for Hospital Ethylene Oxide Sterilizers). [Authority granted under 40 CFR part 63, subpart WWWW; condition originated in 40 CFR part 63, subpart WWWW].

II.B.27.a.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR part 63, subpart WWWW.

II.B.27.a.2 **Recordkeeping:**

All records required in 40 CFR part 63, subpart WWWW shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.27.a.3 **Reporting:**

All notifications and reports required in 40 CFR part 63, subpart WWWW shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.C **Emissions Trading**
(R307-415-6a(10))

Not applicable to this source.

II.D **Alternative Operating Scenarios.**
(R307-415-6a(9))

Not applicable to this source.

II.E Source-specific Definitions.

None.

SECTION III: PERMIT SHIELD

A permit shield was not granted for any specific requirements.

SECTION IV: ACID RAIN PROVISIONS

IV.A **This source is not subject to Title IV. This section is not applicable.**

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates	DAQE-AN103540025-13 dated September 30, 2013
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1. Comment on an item regarding 40 CFR part 64, Compliance Assurance Monitoring Applicability : CAM applicability has been evaluated. There are no CAM requirements in this permit. [Last updated December 2, 2013]
2. Comment on an item originating in 40 CFR Part 63, Subpart HHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources: 40 CFR Part 63, Subpart HHHHHH does not apply to the paint booth as long as the University does not use any of the target HAPS identified by the rule. [Last updated December 2, 2013]
3. Comment on an item originating in 40 CFR Part 63, Subpart ZZZZ, regarding, Existing Emergency Generators.: Per 40 CFR Part 63.6590(b)(3), existing institutional emergency stationary RICE located at an area source of HAP emissions, do not have to meet the requirements of subparts ZZZZ and A. No initial notification is necessary.

The following Generators are Exempt/Existing Emergency generators with no requirements under 40 CFR Part 63, Subpart ZZZZ, but having requirements under 40 CFR Part 60, Subpart IIII:

Locations (hp): bldg 85 (168 hp); bldg 526 (1,475 hp); and bldg 526 (1,475 hp).

The following Generators are New Emergency generators under 40 CFR Part 63, Subpart ZZZZ, that reference requirements under 40 CFR Part 60, Subpart IIII:

Locations (hp): bldg 7 (197 hp); bldg 12 (670 hp); bldg 25 (232 hp); bldg 26 (78 hp); bldg 28 (42hp); bldg 45 (325 hp); bldg 53 (103 hp); bldg 57 (232 hp); bldg 57 (134 hp); bldg 62 (804 hp); bldg. 64 (373 hp); bldg 79 (732 hp); bldg 84 (1620 hp); bldg 85 (900 hp); bldg 85 (1,848 hp); bldg 86 (2,011 hp); bldg. 95 (268 hp); bldg 112 (232 hp); bldg 149 (34 hp); bldg 151 (1,175 hp); bldg 151 (1,175 hp); bldg 205 (42 hp); bldg 301 (80 hp); bldg 303 (804 hp); bldg 305 (27 hp); bldg. 372 (88 hp); bldg 512 (103 hp); bldg 581 (2,923 hp); bldg. 587 (268 hp); bldg 588 (335 hp); bldg 701 (201 hp); bldg 702 (201 hp); bldg 801 (229 hp); bldg 853 (757 hp); bldg 892 (78 hp); Ambulatory Care Center Parking Structure (382 hp); Student Life Center (382 hp); School of Dentistry (232 hp); Beverly T. Sorenson Arts & Education Center (308 hp). [Last updated December 2, 2013]

4. Historical Comments on items originating in AO (DAQE-AN0354010-04) : The following changes were made thru the issuance of AO DAQE-AN0354010-04 and are included in this Title V Permit:
 - 1) DAQE-081-02: AO condition #11 required that the boilers use natural gas only. The boilers are natural gas by design. In the new consolidated AO, the natural gas design feature is included in the emissions unit description and is no longer listed as a distinct permit condition.
 - 2) DAQE-081-02: AO condition #12 required generators to use 0.5 percent sulfur fuels or less in the generators. That condition was subsumed by a more stringent limitation in AO condition #11 which required #1 or #2 fuel oils. Since #1 and #2 fuel oils contain less than 0.5 percent sulfur by weight, AO condition #12 was therefore unnecessary and was not carried forward into this permit.

- 3) DAQE-265-01: AO condition #11 required the generators to use 0.5 percent sulfur fuels or less in the generators. That condition was subsumed by a more stringent limitation in AO condition #10 which required #1 or #2 fuel oils. Since #1 and #2 fuel oils contain less than 0.5 percent sulfur by weight, AO condition #11 was therefore unnecessary and was not be carried forward into the new permit.
 - 4) DAQE-264-01: AO condition #10 required that the boilers and comfort heating equipment use natural gas only. The boilers and comfort heating equipment are natural gas by design. In the new consolidated AO, the natural gas design feature was included in the emissions unit description and was not listed as a distinct permit condition.
 - 5) DAQE-264-01: AO condition #4 incorrectly listed building 822 as the location for a 208 kW diesel generator. The building number was corrected to 821.
 - 6) DAQE-128-01: AO condition #13 included the requirement that natural gas be used as primary fuel. UH Boilers (AO condition #6.A(6)-(8)), and boilers included in Misc. Equipment (AO condition #6.B.), can burn only natural gas by design. Hence, the natural gas design feature was listed in the new permit as part of the emissions unit description. A separate permit requirement for natural gas as primary fuel was retained for the LC Boilers (AO condition #6.A(1)-(5))because they have dual fuel capability.
 - 7) DAQE-128-01: AO condition #6 listed four portable emergency diesel fired generators that have been removed and are no longer on site. Hence, these units are not included in the consolidated AO. The emergency diesel generator-building list from AO condition #6 was also updated to change building 240 to building 213. Buildings 3, 4, 19, 35, 82, 697, 801, and 853 were also be added.
 - 8) DAQE-712-99: AO condition #4 required annual training for all employees operating equipment. The Title V permit for the University of Utah includes record keeping and reporting conditions that sufficiently demonstrate whether or not equipment is being operated properly. For that reason, the annual employee training program was unnecessary and was not carried forth into the new AO.
 - 9) DAQE-712-99: AO condition #9 required the paint booth to be equipped with particulate filters. In the new AO, that design requirement was included as part of the emissions unit description.
 - 10) DAQE-962-96: AO conditions #6 and #7 establ [Last updated December 2, 2013]
5. Historical comments, modifications made 10/26/06 : The changes from the previous AO (DAQE-AN0354010-04) to the new AO (DAQE-AN0354014-06) include:
- (1) Replace two diesel fired emergency generators for the newly constructed John A. Moran Eye Center (formerly Moran Eye Center Phase II-Diesel Generators) rated at 300 kW and 700 kW with two diesel fired emergency generators rated up to 400 kW and 1250 kW bhp).
 - (2) Increase the combined capacity for "Diesel-Generators" emissions unit description from 9,885 kW to 12,020 kW.
 - (3) Add a new diesel fired emergency backup generator to "Diesel-Generators" The location is Building 85. The generator is rated up to 600 kW.

- (4) Revise building numbers for "Diesel-Generators" emissions unit description. Deleted buildings are: 3, 86, 179, and 801. Added buildings are: 85 and 526.
- (5) University Hospital diesel fired emergency backup generators upgraded. One 500 kW generator and one 1000 kW generator replaced with two 1100 kW generators. These generators are found in building 526 (under the "Diesel-Generators" emissions unit description.)
- (6) All references to the U-furnace are deleted because it has been removed from service and dismantled.
- (7) Eccles Critical Care Pavilion has been deleted from this permit because the boilers and generators were never installed.
- (8) For the emissions unit "Underground Fuel Storage Tanks," Subpart Kb was removed as an applicable requirement since these tanks meet the size and vapor pressure requirements of 40 CFR 60.110b (b) and (c).
- (9) "LC Boilers" renamed "Building 303 Boilers"
- (10) Ratings for UH (University Hospital) Boilers changed:
- Two boilers changed from 9.88 MMBTU/hr to 10.5 MM Btu/hr (Building 521/525).
One boiler changed from 9.83 MM Btu/hr to 13.5 MM Btu/hr (Building 526).
- (11) "UC NSPS Boilers" renamed "Building 302 NSPS Boilers"
- (12) UC Diesel Emergency Generator renamed Building 302 Diesel Emergency Generator.
- (13) Fuel Storage Tanks (NSPS) name has been changed to "Underground Fuel Storage Tanks." NSPS requirement has been removed due to change in Federal Regulations.
- (14) Change Moran Eye Center Phase I to Building 550.
- (15) Change Moran Eye Center Phase II to Building 523. Change generators to 400 and 1250 kW.
- (16) Change Health Sciences Education Building to Building 575.
- (17) Change Emma-Eccles-Jones Medical Research Center to Building 565.
- (18) Opacity limit for diesel generators has been revised from 10 percent to 20 percent.
- (19) Natural gas equipment less than 5 MM Btu/hr at Huntsman Cancer Hospital Added to Misc Equipment.
- (20) "New Student Housing Emergency Diesel Generators" renamed to "Student Housing Emergency Diesel Generators"
- (21) Combustion Lab U-furnace deleted from permit.
- (22) "Huntsman Cancer Institute (Phase I)" changed to "Building 555 Huntsman Cancer Institute".

(23) Huntsman Cancer Institute Phase II " changed to "Building 556 Huntsman Cancer Hospital."

(24) Add requirements for 40 CFR Part 82 Subparts B and F.

(25) Also a correction was made to the visible emissions monitoring Requirement for "Diesel generators- 4223 bhp Combined." Monitoring changed from calendar year to annual per the original AO requirement. [Last updated December 2, 2013]

6. Historical Comments on items originating in AO (DAQE-AN0354016-07) :

-For the turbine and duct burner together, the NO_x emissions limit (25 ppm) from 40 CFR 60.4420 Table 1, has been subsumed by AO condition 22C which is more stringent (15 ppm) and has been included in this Title V permit..

-The initial performance testing requirement for NO_x given by 60.4400(a), and 60.8, is covered by AO condition 22.E. which is included in this Title V permit.

-The NO_x testing frequency from 40 CFR 60.4340(a) allows testing on a two year basis. That requirement has been subsumed by AO condition 22(E) which is included in this Title V permit and requires testing every year and is thus more stringent.

-The written report required by 40 CFR 60.4375(b) for annual NO_x performance tests is covered by AO condition 22.L. which is included in this Title V permit. [Last updated February 14, 2008]

[Last updated December 2, 2013]

7. Historical comments on items originating in AO (DAQE-AN0354014-06): Modifications made 10/26/06 :

- 1) DAQE-962-96: AO condition #4 was not carried forward into the new AO. Condition #4 was from an older version of the AO boiler-plate comprised of general requirements. That particular training requirement is no longer generally applied to all sources receiving new approval orders. Training requirements are reserved for special cases when appropriate. For this particular case, the Combustion Lab, the training requirement was deemed unnecessary.
- 2) DAQE-962-96: AO condition #9E required daily record keeping of natural gas usage. That requirement was not carried over into the new AO because there is no daily limit for natural gas usage.
- 3) DAQE-0607-93: AO condition #5 was not carried forward into the new AO. Condition #5 required posting of the AO and employee training. That particular condition is from an older version of the AO boiler-plate comprised of general requirements and is no longer generally applied to all sources receiving new approval orders. Training requirements are reserved for special cases when appropriate. For this particular case, training for the fume hoods and posting of the AO is not deemed necessary as safe operation of the fume hoods is covered by OSHA and the Standard Operating Practices (SOPs) described in the University of Utah's "Chemical Hygiene Plan of the University of Utah" and "Safety and Health Manual".
- 4) DAQE-0607-93: AO condition #9 placed an opacity limit of 10% on laboratory Fume Hoods. The purpose of these hoods is for controlling fumes, not smoke. For that reason, an opacity limit on these hoods is not necessary and will not be included in the new AO.

- 5) Two NSPS boilers and an emergency generator were added to the Eccles Critical Care Pavilion.
- 6) The four boilers at the Huntsman Cancer Institute (Phase I) were retrofitted to burn both natural gas and diesel.
- 7) Two non-NSPS boilers and two emergency generators were added to the Huntsman Cancer Institute-Phase II.
- 8) One NSPS boiler and one emergency generator were added to the Emma Eccles Jones Medical Research Center.
- 9) One 500 kW diesel emergency generator were added to the Moran Eye Center Phase I.
- 10) An out of service boiler located at the Moran Eye Center Phase I, were listed for identification purposes only.
- 11) Two emergency generators were added to the Moran Eye Center-Phase II.
- 12) One emergency generator was added to the Health Sciences Education Building.
- 13) Several insignificant emissions units were listed for identification purposes only.
- 14) One Cauldron/ 2002-Winter-Olympics monument, was listed for identification purposes only.
- 15) UH Boilers are designated as natural gas/diesel design boilers. [Comment last updated on 12/06/2004]

[Last updated December 2, 2013]

8. Historical Comments on items originating in AO (DAQE-AN0354016-07), Incorrect NSPS citation in Approval order: Condition 25 of AO AN0103540016-07 cites 40 CFR Part 60, Subpart Dc as an applicable requirement for the duct burner. However, that equipment is exempted per 40 CFR Part 60.40c(e) (units subject to Subpart KKKK are exempt from Dc). [Last updated February 12, 2008] [Last updated December 2, 2013]
9. Comment regarding Boiler MACT 40 CFR Part 63, Subpart JJJJJ: This regulation does not apply to the boilers at the University of Utah. They meet the exemption for and definition of Gas-fired boiler (Periodic testing of liquid fuel does not exceed a combined total of 48 hours during any calendar year). [Last updated December 2, 2013]
10. Historical Comment regarding Greenhouse Gases (GHGs): GHG applicability has been reviewed and evaluated for AO DAQE-AN0103540022-11 and there are no GHG requirements included in this permit. [Last updated December 2, 2013]