THE UNIVERSITY OF ARIZONA

Risk Management Services
Administrative Services
Division of Business Affairs

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August 1, 2014

Rupesh Patel
Air Permit Manager
Pima County Department of Environmental Quality
33 North Stone Avenue, Suite 700
Tucson, AZ 85701

Re: Title V Air Quality Permit Renewal Application
Air Quality Permit No. 2371
University of Arizona

Dear Mr. Patel:

The University of Arizona is submitting to the Pima County Department of Environmental Quality the enclosed *Title V Air Quality Permit Renewal Application*. This permit renewal application was prepared in accordance with PCC 17.12.280. We understand that PDEQ does not require a processing fee to accompany this renewal application.

If you have any questions or comments concerning this renewal application, please contact Lloyd Wundrock at 520-349-1001.

Sincerely,

Steven C. Holland
Assistant Vice President, Risk Management Services

cc: Manny Aquitania, EPA Region 9
Lloyd M. Wundrock, UA, RMS
Roger Felty, ARCADIS
Meredith Gracey, ARCADIS

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University Of Arizona

Title V Air Quality Permit Renewal Application

Air Quality Permit #2371

August 2014

ARCADIS

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PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT APPLICATION
COMPLETENESS CHECKLIST

Reference	Requirement	Permit Application Section # or Attachment
Application Form	Has the Standard Application form been completed?	Section 1
Application Form	Has the responsible official signed the application form?	Section 1
PCC 17.12.510	Have the appropriate application fees been included with the application, if required?	NA
PCC 17.12.160(h)	Has the Certification of Truth, Accuracy, and Completeness been included?	Section 11
Filing Instructions 1.	Has a description of each process unit been included?	NA
Filing Instructions 2.	Has a product and raw material description been included?	NA
Filing Instructions 3.	Has a complete description of Alternate Operating Scenarios been included?	NA
Filing Instructions 5.	Has a Flow Diagram for all processes been provided?	NA
Filing Instructions 6.	Has a Material Balance been included (if applicable)?	NA
Filing Instructions 7.	Has the Emission Sources form been completed and does it include potential emissions of regulated air pollutants (including fugitives)?	Section 5 & Appendix D
Filing Instructions 8.	Have all applicable SIP requirements been identified?	Section 7
Filing Instructions 8.	Have all applicable NSPS requirements been identified?	Section 7
Filing Instructions 8.	Have all applicable NESHAP requirements been identified?	Section 7
Filing Instructions 8.	Have all applicable Installation Permit requirements been identified?	NA
Filing Instructions 9.	Have any proposed exemptions and insignificant activities been included (if applicable)? If so, has the applicant provided sufficient evidence?	Section 5
Filing Instructions 10.a, 10.c	Have the maximum annual and hourly process rates for each piece of equipment which generates air emissions been included?	Table 2, Section 5 & Appendix D
Filing Instructions 10.b, 10.d	Have the maximum annual and hourly process rates for the whole plant been included?	NA

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
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Reference	Requirement	Permit Application Section # or Attachment
Filing Instructions 10.e	Has the fuel type and maximum usage (hourly and annual) information been included?	Section 5 & Appendix D
Filing Instructions 10.f	Has the raw material maximum hourly, monthly or quarterly and annual usage information been included?	NA
Filing Instructions 10.g	Have the Operating Schedules (hour/day, days/year, days/week, % annual production by season) been included?	Section 5 & Appendix D
Filing Instructions 10.h	Have any limitations on operations and work practice standards affecting emissions been included (if applicable)?	Section 5 & Section 8
Filing Instructions 11	Does the application include an equipment list with the type, name, make, model, serial number, and date of manufacture?	Table 1
Filing Instructions 12	Does the application include the necessary stack information including: stack identification, description, exit height, inside dimensions, exit gas temperature and velocity, and building dimensions?	Section 9
Filing Instructions 13	Does the application include a site diagram which includes: property boundaries, adjacent streets/roads, directional arrow, elevation, equipment layout, location of emission points, emission areas and air pollution control equipment and the closest distance between emissions and property boundary?	Figures 1 & 2
Filing Instructions 14.a	Have the applicable test methods for determining compliance been included?	NA
Filing Instructions 14.b	Does the application include an identification, location and description of Pollution Controls?	Section 5 & Appendix D
Filing Instructions 14.c	Has the rated and operating efficiency of pollution controls been included?	Appendix D
Filing Instructions 14.d	Has the data used to establish efficiency been provided?	Section 5 & Appendix D
Filing Instructions 14.e	Has evidence that the new or modified source will not violate any Ambient Air Quality Standards or PSD increments been provided?	NA

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
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Reference	Requirement	Permit Application Section # or Attachment
Filing Instructions 16.a-d	Has a Compliance Plan been included? (The compliance plan must address acid rain provisions, if applicable.)	NA
Filing Instructions 16.a	Does the application include a description of the Compliance Status of the source with respect to all applicable requirements (for construction/operating sources?)	Section 11
Filing Instructions 16.a, 16.b	Has a description of how the new source or alteration will comply with applicable requirements been included (for new sources or modifications to existing sources)?	Section 11
Filing Instructions 16.b.i	Does the application include a statement that the source will continue to comply with the applicable requirements with which they currently comply (for constructed/operating sources)?	Section 11
Filing Instructions 16.b.ii	Has a statement that the source will meet requirements which become effective before or after permit issuance been included?	Section 11
Filing Instructions 16.b.iii	Has a compliance schedule with remedial measures, and an enforceable sequence of actions with milestones leading to compliance been included for applicable requirements with which the source does not currently comply?	NA
Filing Instructions 16.c	Has a Schedule for Submission of Progress Reports (at least every 6 months) been included (for sources required to have a compliance schedule)?	NA
Filing Instructions 17.a	Has a Compliance Certification by a responsible official been included?	Section 11
Filing Instructions 17.a.i	Does the application include an identification of the applicable requirements which are the basis of the certification?	NA
Filing Instructions 17.a.ii	Has a Statement of Methods Used to Determine Compliance been included?	NA
Filing Instructions 17.a.iii	Has a Schedule for Submission of Compliance Certifications (at least annually) been provided?	NA

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
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Reference	Requirement	Permit Application Section # or Attachment
Filing Instructions 17.a.iv	Does the application include a statement indicating the compliance status with respect to any applicable enhanced monitoring and compliance certification requirements (if applicable)?	NA
Filing Instructions 17.b	Does the application include an acid rain compliance plan (if applicable)?	NA
Filing Instructions 19	Have the calculations on which all information is based been included in the application?	Section 5
Supplemental Checklist for New Major Sources or Major Modifications to Sources Located in Non-Attainment Areas		
Filing Instructions 18.a.i	Does the application include a LAER determination and the data and information used to determine LAER?	NA
Filing Instructions 18.a.ii	Has a certification pursuant to 17.16.560.A.2 been included? Such certification should list and describe all existing major sources owned and operated by the applicant and a statement of compliance.	NA
Filing Instructions 18.a.iii	For sources subject to the offset requirements of 17.16.560.A.3, does the application include a demonstration of the manner in which the source or modification meets the requirements of 17.16.570?	NA
Filing Instructions 18.a.iv	Does the application include the analysis descried in 17.16.560.B, if required (only for VOC or CO sources in photochemical oxidant or CO Non-attainment areas)?	NA
Supplemental Checklist for New Major Sources or Major Modifications to Sources Located in Attainment Areas		
Filing Instructions 18.b.i	Does the application include a demonstration of the manner in which the new source or modification will meet the requirements of 17.16.590?	NA
Filing Instructions 18.b.ii	Does the application include a BACT determination and the data and information used to determine BACT?	NA
Filing Instructions 18.b.iii	Does the application include an air impact analysis as per 17.16.590 and 17.16.600?	NA

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
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Reference	Requirement	Permit Application Section # or Attachment
Filing Instructions 18.b.iv	If the applicant seeks an exemption from any of the requirements of 17.16.590, does the applicant include sufficient information to demonstrate compliance with the requirements of the subsections under which an exemption is sought?	NA
Supplemental Checklist for Applications which include a Notice of Confidentiality		
PCC 17.12.170	Does the notification precisely identify information in the application which is to be considered confidential?	NA
PCC 17.12.170	Does the notification contain sufficient supporting information to allow the Control Officer to evaluate whether the information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, is likely to cause substantial harm to the person's competitive position?	NA
PCC 17.12.170	Has the county attorney concurred in the confidentiality determination?	NA

NA – not applicable for this source.

1. DESCRIPTION OF FACILITY AND PROCESSES

1.1 FACILITY LOCATION AND DESCRIPTION

The University of Arizona (UA) is located in Tucson, Arizona, at approximately 32°14'00" north latitude and 110°56'59" west longitude. The location of the University is provided in Figure 1. The University area totals approximately 392 acres. A site layout with facility boundaries is included as Figure 2. A Building List is provided in Appendix A. The property is bounded by the University of Arizona, Medical Center (UAMC), small commercial businesses, and residential housing to the north, and residential housing and small commercial businesses to the east, south, and west.

The UA is a non-profit, public institution with primary roles of education, research and community service. The facility operates under SIC code 8221 and NAICS code 611310.

1.2 STANDARD PDEQ APPLICATION FORM

A standard Pima County Department of Environmental Quality (PDEQ) application form has been completed by the UA and is provided on the following page.

1.3 PRODUCT/PROCESS DESCRIPTION

The UA does not currently operate any processes that are considered "production manufacturing" (e.g., production manufacturing of materials, equipment, etc.). Therefore, the UA would not be considered a manufacturing facility, rather an incidental user of chemical compounds for education, research, and maintenance activities.

The UA is subject to air permitting due to emissions of regulated pollutants generated primarily by fuel-fired equipment. The emission sources at the UA include:

- 24 natural gas boilers;
- 34 diesel emergency generators;
- 50 natural gas emergency generators;
- 2 diesel non-emergency generators;
- 2 natural gas turbines;

- 1 natural gas pathological incinerator;
- 1 paint spray booth.

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Program
33 N. Stone Avenue ▪ Suite 700 ▪ Tucson, AZ 85701 ▪ Phone: (520) 243-7400

STANDARD PERMIT APPLICATION FORM FOR CLASS I SOURCES

(As required by A.R.S. § 49-480, and Title 17 of the Pima County Code)

1. **Permit to be issued to (Arizona Corporate Commission Registered Name):** University of Arizona

2. **Mailing Address:** P.O. Box 210300
   City: Tucson **State:** AZ **ZIP:** 85721-0300

3. **Plant Name (if different than item #1):** same

4. **Name (or names) of Owner or Operator:** University of Arizona
   FAX #: (520) 621-3706 **Phone:** (520) 621-1790
   Email: sholland@email.arizona.edu

5. **Name of Owner's Agent:** University of Arizona
   FAX #: (520) 621-3706 **Phone:** (520) 621-1790

6. **Plant/Site Manager/Contact Person:** Lloyd Wundrock
   FAX #: (520) 621-3706 **Phone:** (520) 349-1001
   Email: lloydw@email.arizona.edu

7. **Proposed Equipment/Plant Location Address:** University of Arizona
   City: Tucson **State:** AZ **ZIP:** 85721
   Indian Reservation (if applicable): N/A **T/R/S, Lat/Long, Elev:** Sections 6 & 7/T14S/R14E

8. **General Nature of Business:** Colleges, Universities, and Professional Schools
   Standard Industrial Classification Code: 8221 **State Permit Class:** II

9. **Type of Organization:** ☐ Corporation ☐ Individual Owner ☐ Partnership ■ Government Entity ☐ Other

10. **Permit Application Basis** ***(Check all that apply):*** ☐ New Source ☐ General Permit
    ■ Renewal *Revision:* ☐ Administrative ☐ Minor ☐ Significant **Existing Permit #** 2371
    Date of Commencement of Construction or Modification: N/A
    Is any of the equipment to be leased to another individual or entity? ☐ Yes ■ No

11. **Signature of Responsible Official of Organization:** Steven C. Holland
    Official Title of Signer: Assistant Vice President, Risk Management and Safety

12. **Typed or Printed Name & E-mail of Signer:** Steven C. Holland
    Date: 8/1/14 **Telephone Number:** (520) 621-1790

2. ALTERNATE OPERATING SCENARIOS AND PRODUCTS

2.1 ALTERNATE OPERATING SCENARIOS

An alternate operating scenario is not currently planned at the UA.

2.2 ALTERNATE OPERATING SCENARIO PRODUCTS

There will be no "products" associated with potential alternate operating scenarios.

3. PROCESS FLOW DIAGRAM

A process flow diagram is not applicable to the operations at the UA.

4. MATERIAL BALANCES

This section is not applicable because emission calculations are not based on a material balance. Emission calculations are discussed in detail in Section 5.0.

5. EMISSIONS RELATED INFORMATION

5.1 CHARACTERIZATION OF SOURCE ACTIVITIES

Certain types of activities (characterized as "insignificant" or "trivial") are exempt and do not need to be accounted for in the Title V permit application. Pursuant to Pima County Code (PCC) 17.04.340.A, the approved list of insignificant or trivial activities consists of de minimis activities that are exempt from the permitting process.

5.1.1 Insignificant Activities (PCC 17.04.340.A.114)

Assorted small activities and equipment operations that are insignificant sources of emissions may occur on the UA campus. The UA believes these various assorted small activities and equipment comprise an insignificant emissions group and should be excluded from the calculation of the facility's Potential-to-Emit, the air permit equipment list, and emission inventory submittals. Representative insignificant equipment and activities at the UA may include, but are not necessarily limited to:

- natural gas-fired residential furnaces, heat pumps, and small heaters; and natural gas-fired art kilns [all units less than one million British Thermal Units per hour (1.0 MMBtu/hr) heat input];
- small natural gas-fired boilers and water heaters (all less than 1.0 MMBtu/hr heat input);
- small degreasing, painting, coating, photography, and duplicating activities;
- normal landscaping, building and equipment maintenance, and janitorial/custodial activities;
- manual transferring of chemicals from one container to another with capacities of less than 250 gallons;
- gasoline storage tanks with a capacity of 10,000 gallons or less;
- diesel and fuel oil storage tanks with a capacity of 40,000 gallons or less;
- lab equipment used exclusively for chemical and physical analyses;
- hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, precision parts, leather, or metals, plastics, fiberboard, masonry, carbon, glass, or wood;
- commercial food preparation.

5.1.1.1 Cooling Towers

Further, the UA proposes to exclude the 11 cooling towers on the UA campus as insignificant equipment due to the following:

- The UA is not a major source of hazardous air pollutants and therefore, the cooling towers are not subject to the compliance requirements of 40 CFR 63, Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers;
- The UA does not use chromium-based water treatment chemicals in its cooling towers and a certified declaration stating such is provided in Appendix B;
- The particulate emissions from cooling towers are negligible and the UA believes these sources are an insignificant emission group.

5.1.2 Trivial Activities (PCC 17.04.340.A.237)

The United States Environmental Protection Agency (USEPA) and PDEQ classify certain activities as trivial (e.g., emission sources and activities without specific applicable regulations and with extremely small emissions) and can be omitted from the Title V permit application (PCC 17.04.340.A.237). The following is a list of UA sources and activities that are classified as trivial by PDEQ:

- mobile sources (i.e., forklifts, automobiles, etc.) operated on-site;
- air conditioning units used for human comfort;
- ventilation units used for human comfort not exhausting air pollutants into ambient air;
- non-commercial food preparation;
- janitorial/custodial services and products;
- internal combustion engines used for landscaping purposes;
- laundry activities; excluding dry-cleaning and steam boilers;
- bathroom/toilet ventilation units;
- plant maintenance and upkeep activities, including grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation and paving of parking lots;
- repair or maintenance shop activities;
- brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that do not result in emissions of hazardous air pollutant (HAP) metals;
- air compressors and pneumatically operated equipment including hand tools;
- batteries and battery charging stations;
- storage tanks, vessels, and containers holding or storing liquid substances that will not emit any volatile organic compounds (VOC) or HAP;
- storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, and animal fat, and nonvolatile aqueous salt solutions, if appropriate lids and covers are used;

- natural gas pressure regulator vents;
- electric or stem-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam;
- bench-scale laboratory equipment used for physical or chemical analysis, but not laboratory fume hoods or vents;
- routine calibration and maintenance of laboratory equipment or other analytical instruments;
- equipment used for quality control, quality assurance, or inspection purposes, including sampling equipment used to withdraw materials for analysis;
- hydraulic and hydrostatic testing equipment;
- fugitive emissions related to movement of passenger and facility vehicles;
- process water filtration systems and demineralizers;
- fire suppression systems;
- steam cleaning operations and steam sterilizers.

In addition to the above equipment and activities, the UA believes the following equipment is also "trivial", due to low or no emissions and a lack of applicable requirements, and should not be included in this permit renewal application:

- office space heaters (heat input less that 300,000 Btu/hr);
- office equipment and consumer products (e.g., correction fluid, adhesives, printer and copier toner, blueprint machines, paper shredding, printers, copiers, fax machines, etc.);
- non-manufacturing paper trimmer/binders;
- safety devices including fire extinguishers;
- electric motors;
- garbage handling;
- circuit breakers;
- acid, solvent, and other chemical storage cabinets.

5.1.3 University Research and Development Laboratories

University research and development (R&D) laboratories are not a significant source of regulated air pollutants, and therefore should not be included in the air quality permit. The UA position paper for these activities is included as Appendix C.

5.1.4 Regulated Sources

Regulated sources at the UA are detailed below. Emissions from these sources form the basis for this Title V renewal application.

5.1.4.1 Fossil Fuel Fired Equipment

- Boilers - The UA utilizes 24 small boilers (rated at less than 100 MMBtu/hr) to generate steam and provide heat throughout the UA facility:
  - Six natural gas-fired small boilers; non-fugitive, controlled emissions (low nitrogen oxide (NOx) combustors)
  - 18 natural gas-fired small boilers; non-fugitive, uncontrolled emissions
- Turbines – The UA utilizes two turbines firing pipeline quality natural gas to provide electricity to the UA:
  - One 7-megawatt (MW) gas turbine located at the Central Heating and Refrigeration Plant (CHRP); non-fugitive, controlled emissions (low NOx combustor and carbon monoxide (CO) catalyst)
  - One 5-MW gas turbine located at the Arizona Health Sciences Center Heating and Refrigeration Plant (AHSC); non-fugitive, controlled emissions (low NOx combustor)
- Emergency Generators – The UA utilizes 84 emergency generators to provide back-up emergency power generation throughout the facility.
  - 26 diesel fuel fired emergency generators rated at less than 600 horsepower (hp); non-fugitive, uncontrolled emissions
  - 8 diesel fuel fired emergency generators rated at 600 hp or more; non-fugitive; uncontrolled emissions
  - 50 pipeline quality natural gas emergency generators; non-fugitive; uncontrolled emissions

- Non-Emergency Diesel Generators – The UA utilizes two diesel generators as needed for non-emergency purposes. These units are rated at less than 600 hp; non-fugitive; uncontrolled emissions.

- Pathological Incinerator – The UA utilizes one natural gas pathological incinerator rated at 800,000 Btu/hr located at the University Animal Care facility. The pathological incinerator is typically operated less than 10 days in a 6-month period.

5.1.4.2 Small painting activities

- One paint spray booth located at the Facilities Management Shops (Building 206A).

5.2 EMISSION SOURCE SUMMARY

Table 1 summarizes the UA regulated emission sources. Equipment that is on the current list but the UA is proposing to remove is indicated with a strikethrough. The summary also provides the manufacturer, model, serial number, maximum rated capacity, and model year, if available. Based on correspondence with PDEQ, the UA is not required to provide summary of physical parameters (i.e., stack heights, stack height above structures, stack diameter, exit temperature, exit flow rate, and exit velocity) for this permit renewal application.[1] The Site Layout (Figure 2) identifies the locations of sizeable permitted equipment on campus.

5.3 EMISSION RATE ESTIMATES

The following information summarizes the data, assumptions, and methodologies used to estimate the air emissions from each source at the UA. Potential to emit (PTE) calculation sheets are provided in Appendix D.

---

[1] June 25, 2014 email correspondence between Roger Felty (ARCADIS) and Rupesh Patel (PDEQ).

5.3.1 Small Boilers Rated at Less Than 100 MMBtu/hr, Controlled Emissions (Firing Pipeline Quality Natural Gas)

Emissions, based on maximum heat input capacity (in Btu/hr) and emission factors, are calculated as follows:

- The maximum heat input capacity (in Btu/hr) is obtained from the manufacturer.
- Operating hours per year are assumed to be 8,760.
- Appropriate emission factors are selected based on emission tests conducted in 2002, 2003, and 2008 (NOx and CO) and AP-42, Section 1.4. Five of the six boilers are equipped with low NOx combustor technology; boiler 460305 is equipped with an economizer, rather than a low NOx combustor.
- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the capacity, times the annual operating hours, and making the appropriate unit conversions.

5.3.2 Small Boilers Rated at Less Than 100 MMBtu/hr, Uncontrolled Emissions (Firing Pipeline Quality Natural Gas)

Emissions, based on maximum heat input capacity (in Btu/hr) and emission factors, are calculated as follows:

- The maximum capacity input (in Btu/hr) is obtained from the manufacturer.
- Operating hours per year are estimated at 8,760.
- Appropriate emission factors are selected from AP-42, Section 1.4 in pounds per million standard cubic feet (lb/MMscf).
- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the capacity, times the annual operating hours, and making the appropriate unit conversions.

5.3.3 Emergency Generators Rated at Less Than 600 hp (Firing Diesel Fuel)

Emissions, based on maximum fuel use and emission factors, are calculated as follows:

- The fuel use in gallons per hour (fuel) is obtained from manufacturer data, if available. If manufacturer fuel use data is not available, the fuel use is estimated from the engine kilowatt or horsepower rating using the procedure in Appendix D.
- The generators, including New Source Performance Standards (NSPS) subject emergency generators, have a limit of 100 operating hours per year for non-emergency use.
- The heating value for diesel fuel is estimated at 137,000 Btu/hr (AP-42, Appendix B). The brake specific fuel consumption of 7,000 Btu/hp-hr (AP 42, Table 3.4-1) is used to convert lb/MMBtu to lb/hp-hr.
- Emission factors are obtained from manufacturer data, if available. If manufacturer emission factors are not available, appropriate emission factors are selected from AP-42, Section 3.3 in lb/MMBtu fuel input or lb/hp-hr.
- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the fuel use, times the annual operating hours, and making the appropriate unit conversions.

5.3.4 Emergency Generators Rated at 600 hp Or More (Firing Diesel Fuel)

Emissions, based on maximum fuel use and emission factors, are calculated as follows:

- The fuel use in gallons per hour (fuel) is obtained from manufacturer data, if available. If manufacturer fuel use data is not available, the fuel use is estimated from the engine kilowatt or horsepower rating using the procedure in Appendix D.
- The generators, including New Source Performance Standards (NSPS) subject emergency generators, have a limit of 100 operating hours per year for non-emergency use.
- The heating value for diesel fuel is estimated at 137,000 Btu/hr (AP-42, Appendix A). The brake specific fuel consumption of 7,000 Btu/hp-hr (AP 42, Table 3.43-1) is used to convert lb/MMBtu to lb/hp-hr.
- Emission factors are obtained from manufacturer data, if available. If manufacturer emission factors are not available, appropriate emission factors are selected from AP-42, Section 3.4 in lb/MMBtu fuel input.

- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the fuel use or the engine capacity in kilowatts, times the annual operating hours, and making the appropriate unit conversions.

5.3.5 Emergency Generators (Natural Gas)

Emissions, based on maximum fuel use and emission factors, are calculated as follows:

- The fuel use in cubic feet per hour (fuel) is obtained from manufacturer data, if available. If manufacturer fuel use data is not available, the fuel use is estimated from the engine kilowatt or horsepower rating using the procedure in Appendix D.
- The generators, including New Source Performance Standards (NSPS) subject emergency generators, have a limit of 100 operating hours per year for non-emergency use.
- The heating value for natural gas fuel is estimated at 1,020 Btu/hr (AP-42). The brake specific fuel consumption of 7,500 Btu/hp-hr (API/OOC Gulf of Mexico Air Quality Task Force) is used to convert lb/MMBtu to lb/hp-hr.
- Appropriate emission factors are selected from AP-42, Section 3.2 in lb/MMBtu fuel input.
- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the fuel use, times the annual operating hours, and making the appropriate unit conversions.

5.3.6 Natural Gas Turbines

Emissions, based on maximum fuel use and emission factors, are calculated as follows:

- The fuel use in MMBtu/hr is provided by the manufacturer based on the equipment rating (7 MW or 5 MW) and operating temperature.
- Operating hours per year are assumed to be 8,760.
- Appropriate emission factors are selected from emissions tests conducted in 2002/2003 and AP-42, Section 3.1 in lb/MMBtu fuel input.

- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the fuel use, times the annual operating hours, and making the appropriate unit conversions.

5.3.7 Pathological Waste Incinerator

Emissions, based on capacity and emission factors, are calculated as follows:

- The capacity in pounds per hour is obtained from manufacturer data.
- Operating hours per year are assumed to be 3,060 based on the UA operating schedule of 5 days per week, 51 weeks per year, and the air quality permit limitation, which states the incinerator may only be operated from sunrise to sunset, which is assumed to be 12 hours per day.
- Appropriate emission factors are selected from the emissions test conducted on August 22, 2006 and AP-42, Section 2.3 in lb/ton.
- PTE (in tons/year) is calculated by multiplying the appropriate emission factor times the annual operating hours, times the capacity, and making the appropriate unit conversions.

5.4 ESTIMATED POLLUTANT EMISSION RATE SUMMARY

The facility's annual PTE from the regulated emission sources are summarized below. Detailed calculations are provided in Appendix D. The emissions include all regulated pollutants, such as criteria pollutants (nitrogen oxides – NOx, carbon monoxide – CO, sulfur dioxide – SO_2, particulate matter – PM_{10} and $PM_{2.5}$), hazardous air pollutants (HAPs), and volatile organic compounds (VOCs).

Estimated Pollutant Emissions Rate Summary (tons per year)

Facility Summary	NO_x	CO	SO_2	VOC	PM_{10}	$PM_{2.5}$	HAPs
Uncontrolled Fugitives	0	0	0	0	0	0	0
Controlled Fugitives	0	0	0	0	0	0	0
Uncontrolled Non-Fugitives	52.78	40.90	2.59	3.18	2.91	2.91	0.80
Controlled Non-Fugitives	64.88	32.30	2.89	8.97	15.08	15.08	3.23
Totals:	**117.66**	**77.20**	**5.48**	**12.15**	**17.99**	**17.99**	**4.04**

6. PROPOSED MODIFICATIONS TO EXISTING PERMIT

6.1 EQUIPMENT TO BE ADDED AND REMOVED FROM CURRENT PERMIT

The UA identified several pieces of equipment in the equipment list of the permit (Attachment 2) that do not meet the definition of regulated sources, are no longer on-site, or have been decommissioned. The majority of this equipment has been replaced by similar equipment. The UA has submitted the proper permit revisions and notifications to PDEQ for these equipment changes. The exception to this is the three portable engines in the table below. For these engines, the UA is requesting with this Title V renewal submittal that they be removed from the permit because they are portable engines that do not remain in one location for more than 12 consecutive months. Below is a summary of these changes along with details regarding when the equipment changes were requested:

Equipment ID	Type of Equipment	Primary fuel	Manufacturer	Added or Removed
460205	Emergency Generator	Diesel	Caterpillar	Added [A]
460307	Boiler	Natural Gas	Miura	Added [B]
460308	Boiler	Natural Gas	Miura	Added [B]
460309	Boiler	Natural Gas	Miura	Added [B]
670112	Emergency Generator	Diesel	Caterpillar	Added [C]
760101	Emergency Generator	Diesel	Caterpillar	Added [D]

Equipment ID	Type of Equipment	Primary fuel	Manufacturer	Added or Removed
760103	Emergency Generator	Diesel	TBD	Added [D]
890102	Emergency Generator	Natural Gas	Olympian	Added [E]
1370001	Emergency Generator	Diesel	Cummins	Added [F]
1510102	Boiler	Natural Gas	Parker	Removed [G]
1510103	Boiler	Natural Gas	Parker	Added [G]
2010406	Emergency Generator	Natural Gas	Caterpillar	Removed [H]
2010407	Emergency Generator	Diesel	Caterpillar	Added [H]
2050207	Emergency Generator	Natural Gas	EM Bemac II	Removed [I]
2050211	Emergency Generator	Natural Gas	Caterpillar	Added [I]
45B0001	Emergency Generator	Diesel	Cummins	Added [J]
58E0001	Emergency Generator	Diesel	Cummins	Added [K]
58A0113	Emergency Generator	Natural Gas	Kohler	Removed [K]
440110	Arc Welder (portable)	Gasoline	Lincoln Ranger 305G	Request Removal [L]
440114	Arc Welder	Gasoline	Miller Bobcat 250	Removed [M]
440116	Lincoln Arc Welder (portable)	Diesel	Kubota	Request Removal [L]
1740002	Pump (portable)	Gasoline	Industrial Plus	Request Removal [L]

[A] Equipment ID 460204 was requested to be removed from the permit and Equipment ID 460205 was requested to be added to the permit in a Minor Permit Revision submitted to PDEQ in April 2012. This replacement is expected to take place in Spring 2015. Equipment ID 460204 shall remain on the permit until the replacement has been completed.

[B] This equipment was requested to be added to the permit in a Notice of Facility Change Allowed Without Permit Revision submitted to PDEQ on March 19, 2014.

[C] This equipment was requested to be added to the permit in a Notice of Facility Change Allowed Without Permit Revision submitted to PDEQ on August 2, 2013.

[D] In a minor permit revision submitted to PDEQ on August 2, 2010, equipment ID 760101 was reported as being replaced by a new unit (760102). The replacement unit was never installed. The replacement unit is expected to be installed FY 2014-2015. In a minor permit revision in April 2012, it was requested that equipment ID 760101 be added back onto the permit. It also requested that equipment ID 760103 be added to the permit.

[E] This equipment was requested to be added to the permit in a Notice of Facility Change Allowed Without Permit Revision submitted to PDEQ on March 19, 2014.

[F] This equipment was requested to be added to the permit in a Notice of Facility Change Allowed Without Permit Revision submitted to PDEQ on March 10, 2014.

[G] Equipment ID 1510102 was requested to be removed from the permit and Equipment ID 1510103 was requested to be added to the permit in an Addendum to Minor Permit Revision for UA North End Zone (NEZ) Generator submitted to PDEQ on March 14, 2013.

[H] Equipment ID 2010406 was requested to be removed from the permit and Equipment ID 2010407 was requested to be added to the permit in a Notice of Facility Change Allowed Without Permit Revision submitted to PDEQ on May 6, 2014.

[I] Equipment ID 2050207 was requested to be removed from the permit and Equipment ID 2050208 was requested to be added to the permit in a Minor Permit Revision submitted to PDEQ in April 2012. Due to the fact that ID 2050208 is already assigned, this has been renamed as 2050211.

[J] This equipment was requested to be added to the permit in a Notice of Facility Change Allowed Without Permit Revision submitted to PDEQ on December 14, 2012.

[K] Equipment ID 58A0113 was requested to be removed from the permit and Equipment ID 58E0001 was requested to be added to the permit in a Minor Permit Revision submitted to PDEQ on June 26, 2012.

[L] This equipment is not a stationary source. This equipment is mounted on a vehicle/trailer and does not remain in one location for 12 consecutive months. With this submittal, the UA is requesting this equipment be removed from Operating Permit 2371.

[M] This equipment is no longer on-site. This equipment was sent to Surplus Property and placed in public auction.

6.2 CORRECTIONS TO EQUIPMENT INFORMATION

The UA is submitting a correction to the equipment identification number of a diesel emergency generator, added to the permit in the April 2012 Minor Permit Revision, which was identified as 2050208 in that submittal. Due to a naming/designation conflict with an existing boiler, the new equipment identification number of this generator will be 2050211. This equipment correction is indicated in Table 1.

The UA is submitting an additional correction that should be made to the emergency generator identified as 1170201, which was replaced in 2009. The emergency generator 1170201 was renamed Spare 6, and then subsequently renamed 730106. The emergency generator that replaced 1170201 in 2009 should be identified as 1170202 in the permit, but is currently identified as 1170201. This causes confusion when reviewing the history of the equipment; therefore, 1170201 should be renamed 1170202. This equipment correction is indicated in Table 1.

6.3 MODIFICATIONS TO VOLUNTARY OPERATIONAL LIMITS

The UA is proposing modifications to the voluntary operational limits currently in place for stationary engines of model year 2006 and older. Currently, these engines have a voluntary limit of operating 200 hours per year. Since the last permit renewal in 2006, these engines have become subject to operational requirements in 40 CFR 63, Subpart ZZZZ for existing stationary reciprocating internal combustion engines. Subpart ZZZZ imposes an operational limit of 100 hours per year for non-emergency purposes and unlimited operation for emergencies for these engines. With this submittal, the UA is requesting that the operational limits for these engines be changed from 200 hours per year to 100 hours per year for non-emergency purposes and unlimited operation for emergencies. No other changes in voluntary operational limits are requested. The proposed voluntary operating limits are listed in Table 2.

7. DESCRIPTION OF APPLICABLE REQUIREMENTS

Sources of air emissions in Pima County are subject to a number of air quality regulations. PDEQ has been delegated authority by the USEPA to administer the applicable federal regulations and Arizona's State Implementation Plan (SIP), as it pertains to Pima County sources.

7.1 REGULATORY OVERVIEW

While the USEPA has authority to review Title V air permit applications, PDEQ is the primary permitting agency and will review this Title V permit renewal application. Table 3 summarizes the regulations applicable to UA operations.

7.2 CLEAN AIR ACT AMENDMENTS OF 1990 TITLE III – HAZARDOUS AIR POLLUTANTS PROGRAM

Title III of the Clean Air Act Amendments revised the previous National Emission Standards for Hazardous Air Pollutants (NESHAPs) program by adding a new air toxics control program. Its primary focus is to reduce emissions of hazardous air pollutants (included in a USEPA-designated list of 187 compounds) from stationary sources. Originally, Title III applied to sources that emitted more than 10 tpy of any single HAP or 25 tpy of any combination of HAPs (major source of HAPs). Based on the facility's PTE (summarized in Section 5.4), the UA is not a major source of HAPs. However, EPA recently promulgated additional requirements for sources that emit less than 10 tpy of any single HAP or 25 tpy of any combination of HAPs (area sources of HAPs). The UA is an area source of HAPs and must comply with applicable NESHAP regulations. The following sections provide an applicability discussion for area source NESHAP regulations that could apply to the UA.

7.2.1 NESHAP Subpart ZZZZ – Existing Stationary Engines Constructed Before June 12, 2006

The requirements of this subpart apply to stationary reciprocating internal combustion engines (RICEs) located at major and area sources of HAP emissions that were constructed before June 12, 2006. The UA has several emergency RICEs and one non-emergency RICE that are potentially subject to this subpart.

The UA has several emergency stationary compression ignition and spark ignition RICEs that were constructed before June 12, 2006. According to 40 CFR 63.6585(f) and (f)(3), existing institutional emergency stationary RICEs located at an area source of HAP emissions are not subject to this subpart, as long as each emergency stationary RICE meets the following conditions:

- The RICE does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for emergency demand response.
- The RICE does not operate or is not contractually obligated to be available for more than 15 hours per calendar year during a deviation of voltage or frequency of 5 percent or greater below the standard.
- The RICE does not operate to supply power as part of a financial arrangement with another entity.

Each emergency stationary RICE at the UA that was constructed before June 12, 2006 meets these conditions, and are therefore exempt from the requirements of this subpart. However, in order to meet the definition of an "emergency engine" under this subpart, each emergency stationary RICE must be operated according to the following requirements:

- There is no time limit on the use of an emergency stationary RICE in emergency situations.
- Maximum of 100 hours per calendar year for maintenance and testing.
- Maximum of 50 hours per calendar year for non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the100 hours per calendar year for maintenance and testing.

The UA has one non-emergency stationary RICE that was constructed before June 12, 2006 (Equipment ID 1740101). This RICE is subject to certain provisions in this subpart, including:

- Operate and maintain the engine according to manufacturer's emissions-related written instructions or develop a maintenance plan.
- Except during periods of startup:
    - Change oil and filter every 1,000 hours of operation or annually, whichever comes first
    - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
    - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- During period of startup, minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

7.2.2 NESHAP Subpart CCCCCC – Gasoline Dispensing Facilities

The UA does not operate any gasoline dispensing facilities within the boundaries of the UA Campus; therefore, the UA is not subject to the requirements of NESHAP Subpart CCCCCC.

7.2.3 NESHAP Subpart HHHHHH – Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

The requirements of this subpart apply to the following painting operations:

- Paint stripping that uses methylene chloride-containing paint stripping formulations
- Spray application of coatings to motor vehicles and mobile equipment
- Spray application of coatings to a plastic or metal substrate where the coatings contain compounds of chromium, lead, manganese, nickel, or cadmium.

The UA has one spray paint booth that is operated by Facilities Management (FM) and is located near the Arizona Health Sciences Center (AHSC). FM spray applies Pro-Cryl acrylic primer and Syn-Lustro alkyd gloss enamel to metal furniture such as desks, cabinets, bookcases, and shelving. Most of the painting is done by spray application in the FM paint booth unless the piece is too large to fit in the booth or is permanently fixed in place, such as fencing. Some painting is done with brush or roller.

FM does not use any paint stripping agents that contain methylene chloride. The UA does not spray apply coatings to motor vehicles or mobile equipment, or to a plastic or metal substrate where coatings contain compounds of chromium, lead, manganese, nickel, or cadmium. Based on this information, these painting operations are not subject to the requirements of NESHAP Subpart HHHHHH.

7.2.4 NESHAP Subpart JJJJJJ – Area Sources: Industrial, Commercial, and Institutional Boilers

The requirements of this subpart apply to industrial, commercial and institutional boilers that are located in area sources of HAP emissions. According to 40 CFR 63.11195, gas-fired boilers are exempt from the requirements of this subpart. A gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. The UA operates gas-fired boilers; therefore, the boilers are not subject to the requirements of NESHAP Subpart JJJJJJ.

7.3 CODE OF FEDERAL REGULATIONS, TITLE 40

The following Code of Federal Regulations, Title 40 regulations are applicable to the UA:

- 40 CFR Part 60 Subpart A – General Provisions – applicable facility-wide
- 40 CFR Part 60 Subpart Dc – New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units – applicable to the nine boilers rated between 10 MMBtu/hr and 100 MMBtu/hr, and installed after June 9, 1989.
- 40 CFR Part 60 Subpart GG – NSPS for Stationary Gas Turbines – applicable to the two natural gas turbines with a heat input at peak load greater than 10 MMBtu/hr, and installed after October 3, 1977.
- 40 CFR Part 60, Subpart IIII - NSPS for Stationary Compression Ignition Internal Combustion Engines – applicable to 16 diesel emergency generators with a maximum engine power less than or equal to 3,000 hp, displacement less than 10 liters/cylinder, and manufactured after April 1, 2006.
- 40 CFR Part 60, Subpart JJJJ - NSPS for Stationary Spark Ignition Internal Combustion Engines – applicable to two natural gas emergency generators which have a maximum engine power greater than 25 hp and were manufactured on or after January 1, 2009.
- 40 CFR Part 82 Subpart F – Protection of Stratospheric Ozone, Recycling and Emission Reduction – applicable facility-wide

The following CFR Title 40 regulations were reviewed and determined to be <u>not</u> applicable to UA:

- 40 CFR Part 60, Subpart Ce – Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators – if the incinerator combusts pathological waste, low level radioactive waste, or chemotherapeutic waste, as defined in 40 CFR 60.51, and notifies the PDEQ of this exemption and maintains quarterly combustion records for the incinerator, then the incinerator is not subject to this subpart. The University Animal Care (UAC) incinerator (Building #104) only combusts pathological waste (carcass) and all required records are maintained; therefore, it is not subject to this subpart.

- 40 CFR Part 60, Subpart E – Standards of Performance for Incinerators – this subpart is applicable to incinerators with a charging rate of 45 metric tons per day or more. The UAC incinerator has a maximum charging rate of 1.47 metric tons per day; therefore, it is not subject to this subpart. A typical charge is less than 300 pounds and is operated less than 10 days in a 6-month period.

- 40 CFR Part 60, Subpart Ec – Standards of Performance for New Stationary Sources: Hospital/Medical/Infectious Waste Incinerators – this subpart is applicable to incinerators that were constructed after June 10, 1996 or modified after March 16, 1998. The UAC incinerator was constructed in 1989; therefore, it is not subject to this subpart.

- 40 CFR Part 60, Subpart CCCC – Standards of Performance for Commercial and Industrial Solid Waste Incineration Units – this subpart is applicable to incinerators that were constructed after June 4, 2010 or modified after August 7, 2013. The UAC incinerator was constructed in 1989; therefore, it is not subject to this subpart.

- 40 CFR Part 60, Subpart EEEE – Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006 – this subpart is applicable to incinerators that were constructed after December 9, 2004 or modified after June 16, 2006. The UAC incinerator was constructed in 1989; therefore, it is not subject to this subpart.

- 40 CFR Part 60, Subpart FFFF – Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004 – this subpart is not directly applicable to owners or operators of incineration units. However, owners and operators must comply with the State plan that is developed to implement emission guidelines contained within this subpart. Institutional waste incineration units are excluded from this subpart if they burn 90 percent or more by weight of pathological waste, low-level radioactive waste, or chemotherapeutic waste and the PDEQ is notified that they meet this exclusion.

7.4 GREENHOUSE GAS (GHG) MANDATORY REPORTING RULE, 40 CFR 98

On October 30, 2009, the EPA published a rule for the mandatory reporting of greenhouse gases (GHG) from certain sources. The UA is subject to the GHG Mandatory Reporting Rule if it meets both of the following requirements:

- The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hr or greater.
- The facility emits 25,000 metric tons of carbon dioxide equivalent (CO_2e) or more per year in combined emissions from all stationary fuel combustion sources.

The UA meets these requirements and thus is subject to the GHG Mandatory Reporting Rule. The UA is required to comply with the provisions of 40 CFR 98 and report annual GHG emissions to the EPA.

However, according to the Federal Register notice for the final rule for Mandatory GHG Reporting, the GHG Mandatory Reporting Rule is not an applicable requirement of the Title V Operating Permit program, and therefore does not need to be included in the UA Title V air permit. The following excerpt from the Federal Register notice explains EPA's stance on this:

74 FR 56260, October 30, 2009, Pages 56287 and 56288, Federal Register Notice for the final rule for Mandatory GHG Reporting

Comment: EPA also received numerous comments about whether the requirements imposed by this rule are "applicable requirements" under the title V operating permit program. The majority of the comments took the position that the current definitions of "applicable requirement" at 40 CFR 70.2 and 71.2 do not include a rule such as this, promulgated under CAA section 114(a)(1) and 208. Commenters requested that EPA confirm their interpretation of the regulations.

Response: As currently written, the definition of "applicable requirement" in 40 CFR 70.2 and 71.2 does not include a monitoring rule such as today's action, which is promulgated under CAA sections 114(a)(1) and 208.

While the UA is subject to the GHG Mandatory Reporting Rule and will comply with the provisions of 40 CFR 98, the requirements of this rule will not be included as part of the Title V air permit.

7.5 PIMA COUNTY - STATE IMPLEMENTATION PLAN (SIP)

The following Pima County SIP regulations apply to the UA:

- Rule 224 – Fugitive Dust Producing Activities
- Rule 313 - Incinerators
- Rule 314 – Petroleum Liquids
- Rule 316 – Particulates Materials (Subsections A, C, D)
- Rule 321 - Emissions Discharge Opacity Limiting Standards - Standards and Applicability (Includes NESHAP)
- Rule 332 – Compilation of Mass Rates and Concentrations (NESHAPS)
- Rule 343 – Visibility Limiting Standard
- Rule 344 – Odor Limiting Standards

7.6 PIMA COUNTY CODE, TITLE 17

The following Pima County Code, Title 17 regulations apply to the UA:

- 17.12.180 - Permit Contents for Class I permits
- 17.12.190 - Permits Containing Synthetic Emission Limitations and Standards
- 17.16.010 - Local Rules and Standards – Applicability of More Than One Standard
- 17.16.040 - Visible Emission Standards - Standards and Applicability (Includes NESHAP)
- 17.16.050 - Visibility Limiting Standard
- 17.16.160 - Standards of Performance for Fossil-Fuel Fired Steam Generators and General Fuel Burning Equipment
- 17.16.165.C - Standards of Performance for Fossil-Fuel Fired Industrial and Commercial Equipment (Particulate Matter Limitation)
- 17.16.165.E - Standards of Performance for Fossil-Fuel Fired Industrial and Commercial Equipment (Sulfur Dioxide Limitation)

- 17.16.170 - Incinerators
- 17.16.230 - Standards of Performance for Storage Vessels for Petroleum Liquids
- 17.16.340 - Standards of Performance for Stationary Rotating Machinery
- 17.16.400 - Organic Solvents and Other Organic Materials (Sections A and C)
- 17.16.490 – Standards of Performance for New Stationary Sources (NSPS) – Subpart IIII
- 17.16.510 - Standards of Performance for Incinerators

7.7 NON-APPLICABLE PERMIT REQUIREMENT

The UA is not proposing the removal of conditions from the permit.

8. VOLUNTARILY ACCEPTED LIMITS (PCC 17.12.190)

8.1 VOLUNTARY OPERATING LIMITS

The UA has self-imposed operating limitations for the non-emergency generators. These limitations are summarized in Table 2.

9. STACK INFORMATION

Based on correspondence dated June 25, 2014 with Rupesh Patel of PDEQ, the UA is not required to provide a summary of physical parameters (i.e., stack heights, stack height above structures, stack diameter, exit temperature, exit flow rate, and exit velocity) for this permit renewal application.

10. SITE DIAGRAM

A site diagram of the UA facility is provided as Figure 2. The diagram shows the property boundaries, adjacent streets, directional arrow, approximate site elevation, and approximate location of sizeable permitted equipment.

11. COMPLIANCE

Based on Annual Compliance Certifications provided to PDEQ by the UA, the UA is in compliance with each applicable regulation, and expects to continue complying with

each regulation. In addition, the UA expects to track and meet the requirements of all applicable regulations that become effective during the permit term. Therefore, a compliance plan and schedule are not required at this time.

11.1 COMPLIANCE CERTIFICATION

The applicable requirements, which are the basis of the Compliance Certification, are identified in Table 3. The Compliance Certification and Certification of Truth, Accuracy, and Completeness are included below. Annual compliance certifications will be submitted to PDEQ and USEPA Region IX by January 31st of each year during the permit term.

Certification of Compliance with all Applicable Requirements
Permit Number: 2371

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

The responsible official is defined as a person who is in charge of principal business functions or who performs policy or decision making functions for the business. This may also include an authorized representative for such persons. For a complete definition, see Pima County Air Quality Control, Title 17, Section 17.04.340(A)(200).

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Pima County Department of Environmental Quality (PDEQ) as public record. I also attest that I am in compliance with the applicable requirements and will continue to comply with such requirements and any future requirements that become effective during the life of my permit. I will present a certification of compliance to PDEQ no less than annually and more frequently if specified by PDEQ. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the requirements of Title 17 of the Pima County Code and any permit issued thereof.

Name (Print/Type): Steven C. Holland

Title: Assistant Vice President, Risk Management Services

(Signature): Steven C. Holland Date: 8/1/14

Certification of Truth, Accuracy, and Completeness

17.12.160(I) - Certification of Truth, Accuracy, and Completeness. Any application form, report, or compliance certification submitted pursuant to this title shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this title shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

By my signature I, Steven C. Holland, hereby certify that based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Name (Print/Type): Steven C. Holland

Title: Assistant Vice President, Risk Management Services

Date: 8/1/14

12. NEW MAJOR SOURCE INFORMATION

This section is not applicable as the UA facility is an existing source.

13. EMISSIONS CALCULATIONS

All supporting engineering and emissions calculations for the UA Title V permit renewal application are included in Appendix D.