

**PERMIT ISSUED TO: IBM CORP AS MANAGING OPERATOR FOR
CAMPUS RESEARCH CORPORATION:
The Project At The University of Arizona Science and Technology Park**

PERMIT NUMBER 260

TECHNICAL SUPPORT DOCUMENT (TSD)

I. GENERAL COMMENTS:

A. Company Information

Permit Issued To: International Business Machines Corporation As Managing Operator For Campus Research Corporation.

Mailing Address: North Castle Dr, Armonk, New York 10504

Plant Name: The Project At The University of Arizona Science and Technology Park

Physical Address: 9018 S. Rita Road, Tucson, AZ 85747

B. Background

This August, 2005 permit is issued to 'International Business Machines Corporation As Managing Operator For Campus Research Corporation' the Permittee. The source/plant name is 'The Project at the University of Arizona Science and Technology Park' (UASTP). UASTP has not incurred any major violations in the past. The most recent enforcement action against the source dated April 6, 2001, was a result of a failure to keep and maintain an operational log for the permitted boilers. This deficiency was adequately resolved on May 8, 2001. UASTP is now in substantial compliance with applicable regulations identified in Part V of this TSD.

C. Attainment Classification

The plant is in an area that is in attainment for all pollutants.

II. SOURCE DESCRIPTION

The Project at the USATP is composed of a group of buildings that are occupied by various businesses. These businesses operate independently from the Permittee and are thus view as tenants of UASTP. The entire equipment at these businesses was previously permitted under one permit #0260, held by IBM-UASTP. On February 24, 2003 'The Project at the UASTP' informed Pima County Department of Environmental Quality (PDEQ) of their intention to transfer all responsibility for equipment located at each business to the tenant. The remaining equipment located in areas not under tenant occupancy is now permitted under permit #260 held by 'International Business Machines Corporation As Managing Operator For Campus Research Corporation'. This facility change and administrative amendment was completed in March 2005.

A. Process Description

The equipment list at UASTP now comprises of two (2) boilers which can burn either natural gas or diesel fuel. They are used to supply process steam and space heat. A single (1) natural gas fired dewatering unit is used at the industrial wastewater treatment plant to dry wastewater salts. Seven (7) diesel fired generators used to supply emergency power. UASTP has opted to limit the fuel usage on the boilers to make the facility a synthetic minor.

B. Air Pollution Control Equipment

No air pollution control equipment has been reported.

III. REGULATORY HISTORY

A. Testing & Inspections

The source is currently permitted under a non-renewable five-year permit, first issued on 11-09-00. There have been regular inspections, and there has not been a history of any compliance problems. The source was last inspected on 03/08/01 where only one violation was discovered, specifically due to a failure to keep an operational log and associated records as required in the permit conditions. UASTP is currently in substantial compliance with Pima County Code Title 17.

B. Excess Emissions

There are no reports of excess emissions or permit deviations.

IV. EMISSIONS ESTIMATES

The following emission rates are for reference purposes only and are not intended to be enforced by direct measurement unless otherwise noted in Part B of the air quality permit # 0260.

Pollutant	Uncontrolled		Controlled*
	Diesel Fired Generators and Natural Gas Fired Boilers (Tons/Yr)	Diesel Fired Generators and Distillate Fuel Oil Fired Boilers (Tons/Yr)	Diesel Fired Generators and Dual Fuel Fired Boilers (Tons/Yr)
Nitrogen Oxides (NOx)	442.26	459.39	65.66
Carbon Monoxide (CO)	122.16	104.33	35.26
Volatile Organic Compounds (VOC)	20.96	19.82	3.05
Particulate Matter (as PM10)	15.20	21.37	4.79
Sulfur Oxides (SOx)	86.85	435.67	66.49
Hazardous Air Pollutants (HAPs)	0.83	0.23	0.61

* Estimates are based on the two boilers exclusively consuming #2-4 Fuel oil with a voluntary limitation of 960000 gallons per year. Additional boiler operation in excess of this limitation shall be limited to natural gas. The operation of the emergency generators shall be limited up to a 500 hrs/yr. Refer to the PTE documents for calculations. The Brine Dewatering Unit shall be exclusively fired by pipeline quality natural gas and thus hourly limitations are not applicable to this unit.

Based on the estimates, the source's permit class is a **Synthetic Minor Source, Class II Permit**.

V. APPLICABLE REQUIREMENTS

New Source Performance Standards (NSPS): - No NSPS requirements apply to the facility

NESHAP: - No NESHAP regulations apply to the facility.

State Implementation Plan (SIP) - The following SIP rules apply:

Emissions-Discharge Opacity Limiting Standards	SIP Rule 321
Visibility Limiting Standard	SIP Rule 343
Odor Limiting Standards	SIP Rule 344.A

Pima County Code (PCC): - The following PCC Title 17 rules apply:

Chapter 17.12:

Test Methods and Procedures	17.12.045
Permit display or posting	17.12.080
Compliance plan; certification	17.12.210
Permits containing voluntarily accepted emission limitations and standards	17.12.190
Annual emission inventory questionnaire	17.12.320
Material Permit Condition	17.12.350

Chapter 17.16:

Local rules and standards; applicability of more than one standard	17.16.010
Odor Limiting Standards	17.16.030
Standards and applicability (Includes NESHAP)	17.16.040
Visibility limiting standard	17.16.050
New and Existing Stationary Source Performance Standards	17.16.130
Standards of performance for fossil fuel fired industrial and commercial equipment	17.16.165
Standards of performance for Stationary Rotating Machinery	17.16.340
Source Sampling, Monitoring and Testing	17.20.010

VI. PERMIT CONTENTS

A. Emission Limits/ Standards:

Dual Fired Boilers and Natural Gas Fired Brine Dewatering Unit	
Particulate Matter Standard	17.16.165.C.1
Opacity Standard and Visible Emissions	17.16.130.B.2 and 3, 17.16.050.D and SIP Rule 321 and 343
Sulfur Dioxide Limitation	17.16.165.E
Fuel Limitation and Permits containing voluntary accepted emission limitations and standards	17.12.190.B, 17.12.180.A.2 and 17.16.165.G
Emergency Generators	
Particulate Matter Standard	17.16.340.C.1
Opacity Standard	17.16.340.E, SIP 321 and 17.16.040
Sulfur Dioxide Standard	17.16.340.F
Fuel Limitation	17.16.340.H
Operation Hour Limitation; Permits containing voluntary	17.12.190.B

accepted emission limitations and standards

General Standards
Odor Limiting Standard 17.16.030 and SIP Rule 344.A

B. Monitoring Requirements:

Dual Fired Boilers and Natural Gas Fired Brine Dewatering Unit
Permit contents, opacity, visible emissions and fuel
consumption monitoring 17.12.180.A.3

Emergency Generators
Permit contents, opacity, visible emissions and fuel
consumption monitoring 17.12.180.A.3 and 4

Type of fuel burned 17.16.010.C
Daily sulfur content and lower heating value of fuel 17.16.340.I

C. Recordkeeping Requirements:

Dual Fired Boilers and Natural Gas Fired Brine Dewatering Unit
Opacity, Visible emissions and fuel limitation compliance 17.12.180.A.4 and 17.16.010

Emergency Generators
Opacity, Visible emissions and fuel limitation compliance 17.12.180.A.4

D. Reporting Requirements:

Dual Fired Boilers and Natural Gas Fired Brine Dewatering Unit
(See General Standards)

Emergency Generators
Reporting of all instances when the fuel sulfur content being fired is >0.8%
17.16.340.J and PCC 17.12.180.A.5

General Standards
Reporting according to general requirements 17.12.180.A.5
Semi-annual summary reports of required monitoring 17.12.180.A.5.a
Excess emissions and permit deviation reporting 17.12.180.A.5.b
Compliance certification reporting 17.12.210.A.2
Emissions inventory reporting 17.12.320

E. Testing Requirements:

EPA Test Method 9 Test to monitor opacity 17.20.010
Particulate Matter testing upon request by the Control Officer 17.20.010
Performance test once per permit term or upon request
by the Control Officer 17.20.010
Odor testing if requested by Control Officer

F. Alternate Operating Scenarios:

The applicant has not requested any alternate operating scenarios

G. Miscellaneous Comments:

None

VII. IMPACTS TO AMBIENT AIR QUALITY

None required, as the source is not major.

VIII. CONTROL TECHNOLOGY DETERMINATION

No control technologies needed to be determined. This facility is in an area of attainment and is not a new source.

IX. PREVIOUS PERMIT CONDITIONS

The opacity standard detailed in Part 'B'II.A.2 referencing PCC.17.16.040 has been replaced with PCC 17.16.130. The previous opacity standard did not reference the opacity requirement in attainment area nor did it reference change in opacity requirement after April 23 2006.