217/782-2113

"REVISED"
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

U. S. Department of Energy
Attn: R. C. Wunderlich, Manager
Argonne Area Office
9800 South Cass Avenue
Argonne, Illinois 60439

Argonne National Laboratory
Attn: M. H. Derbidge
Acting Chief Operations Officer
9700 South Cass Avenue
Argonne, Illinois 60439

Application No.: 95090195
I.D. No.: 043802AAA
Applicant's Designation:
Date Received: September 13, 1995
Operation of: Research Facility
Date Issued: April 3, 2001
Expiration Date[2]: April 3, 2006
Source Location: 9700 South Cass, Argonne, DuPage
Responsible Official: R. C. Wunderlich, Manager
M. H. Derbidge, Acting Chief Operations Officer

This permit is hereby granted to the above-designated Permittee to OPERATE a research facility, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: June 7, 2002
Revision Date Issued: March 27, 2003
Purpose of Revision: Significant Modification

This significant modification includes three changes in different operations within the facility: 1) waste bulking sheds that were not previously authorized to handle material that are subject to a NESHAP for radionuclides will now be switched to being able to handle those materials and thus subject to that standard, 2) the one boiler than can burn coal will have the coal usage limited so that when the NESHAP for fuel combustion is finalized that the source is not subject to the standard since the limit on coal usage will assure that the source is not major for HAPs, and 3) the transportation research facility will now be able to use fuels other than gasoline and diesel, e.g. hydrogen, natural gas and blends of any fuel. Note that the reduction in coal usage will also result in a reduction in the permit fee.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this permitting action. If a conflict exists between this document and previous versions of the CAAPP permit, this document supersedes those terms and conditions of the permit for which the conflict exists. The previous permit issued April 3, 2001 is incorporated herein by reference.

If you have any questions concerning this permit, please contact Dan Punzak at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DGP:jar

cc: Illinois EPA, FOS, Region 1

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 – federal PSD and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

[2] Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439-4836
630/252-2854

I.D. No.: 043802AAA
Standard Industrial Classification: 8733

1.2 Owner/Parent Company

U. S. Department of Energy
Argonne Area Office
9800 South Cass Avenue
Argonne, Illinois 60439

Manager: R. C. Wunderlich

1.3 a. Operator

University of Chicago @ ANL/DOE
9700 South Cass Avenue
Argonne, Illinois 60439

Air Quality Contact: Greg Barrett
630/252-2854

b. Co-Operator

U.S. Department of Energy
Argonne Area Office
9800 South Cass Avenue
Argonne, Illinois 60439

1.4 General Source Description

The Argonne National Laboratory-East (ANL-E) is located at 9700 South Cass Avenue, Argonne, Illinois, 60439. Argonne National Laboratory-East (ANL-E) is a multipurpose research laboratory owned by the U. S. Department of Energy (DOE) and operated by the University of Chicago. The University of Chicago is responsible for day-to-day operations, including, but not limited to, monitoring, recordkeeping, facility maintenance and reporting. DOE is also a co-operator of the laboratory and is responsible for policy, programmatic funding and scheduling decisions, as well as general oversight. ANL-E is engaged in basic research involving the physical, life and environmental sciences, and technology research in fission, fusion, fossil energy, energy efficiency and renewable energy.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

acfm	Actual cubic feet per minute
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
ALEX	Argonne Liquid Metal Experiment
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
APS	Advanced Photon Source
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CO	Carbon Monoxide
D&D	Decontamination and Decommissioning
°F	degrees Fahrenheit
DOE	Department of Energy
gal	gallon
HAP	Hazardous Air Pollutant
HEPA	High Efficiency Particulate Air
HP or hp	Horsepower
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
IPD	Information and Publishing Division
kg	kilogram
kW	kilowatts
lb	pound
LEL	lower explosive limit
Mg	megagram
mmBtu	Million British thermal units
mmBtu/hr	Million Btus per hour
mmscf	million standard cubic feet
mrem	milli (1/1000) roentgen equivalent man
mo	month
MW	megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PCB	Polychlorinated Biphenyls
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods

ppm	parts per million
psi	pounds per square inch
psia	pounds per square inch absolute
PSD	Prevention of Significant Deterioration
R&D	Research and Development
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
T	ton
T1	Title I – identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
VOL	Volatile Organic Liquids
VOM	Volatile Organic Material
VPL	Volatile Petroleum Liquid
WMO	Waste Management Operations
wt.	weight
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(2) and 201.211, as follows[a]:

Building 205 - Gasoline Storage Tank[a]
Building 222 - Experimental Printed Circuit Lab[a]
Building 308 - Alkali Metal Reaction Booth Vented to Venturi Scrubber[b]
Building 370 - ALEX Alkali Metal Scrubber Vented to Venturi Scrubber[b]
Building 212 - Acid Pickling Vented to Acid Scrubber[b]
Building 212 - Vapor Blast Units Vented to Filters[b]
Building 212 - Plasma Spray Booth Vented to Water Scrubber[b]
Building 369 - Salt Cake Recovery
Building 369 - Electrodialysis Pilot Plant[a]
Building 371 - Gasoline Fueling from 55 Gallon Drums
Leaking Gas Cylinder Storage Facility[a]
Area 800 Landfill

[a] Air pollutants are considered as hazardous pursuant to Section 112(b) of the Clean Air Act.

[b] Although these units are equipped with control devices, the emissions would be less than specified in 35 IAC 201.211(a)(2) in the absence of the control device.

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Building 108 - Sulfuric Acid Storage Tank
Building 212 - G-Wing Ceramics Lab Vented to Filters[a]
Sanitary Wastewater Treatment Plant

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than

1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Equipment used for the melting or application of less than 50,000 lbs/year of wax to which no organic solvent has been added [35 IAC 201.210(a)(7)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Coating operations (excluding powder, architectural and industrial maintenance coating) with aggregate VOM usage that never exceeds 15 lbs/day from all coating lines at the source, including VOM from coating, dilutents, and cleaning materials [35 IAC 201.210(a)(13)].

Printing operations with aggregate organic solvent usage that never exceeds 750 gallons per year from all printing lines at the source, including organic solvent from inks, dilutents, fountain solutions, and cleaning materials [35 IAC 201.210(a)(14)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

Open burning permit for fire department since these are firefighting activities and training in preparation for fighting fires conducted at the source; and

Torch cutting fumes since it is an activity at the source associated with the maintenance, repair, or dismantlement of an emission unit or other equipment installed at the source.

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit’s process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the

source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Alkali Metal Scrubber (Building 206)	A Scrubbing Process to safely dispose of sodium and occasionally other alkali metals	N/A*	Venturi Scrubber and HEPA Filter
Advanced Photon Source (APS)	X-ray radiation beams are produced by accelerating positrons in a circular path at speeds near that of light.	N/A	None
Alpha Gamma Hot Cell Facility	Irradiated nuclear fuel materials that contain plutonium, uranium, and mix-fission products are examined and tested.	N/A	Carbon Adsorber and HEPA Filter
Storage Rooms/Assay Room (Building 306)	Waste material is stored in rooms with concrete floors and cinder block walls with no windows. Assay room is for external viewing of closed waste drums	N/A	HEPA Filters
Sorting/ Decontamination/ Size Reduction Rooms (Building 306)	Radioactive, non-radioactive and mixed wastes are separated and reduced.	N/A	HEPA Filters
Waste Treatment R & D (Building 306)	Three waste treatment processes are being evaluated: 1) aqueous mixed waste, 2) solidification process, and 3) transuranic aqueous mixed waste.	N/A	HEPA Filters
Compactor/Vial Crusher and Chemical/Photo-oxidation Unit (Building 306)	Bulking of rad, mixed and organic wastes. Experimental Treatment of org. wastes	N/A	HEPA Filters
Waste Treatment Rooms (Building 306)	Rooms contain a tank system used to neutralize acidic transuranic waste	N/A	HEPA Filters
Service Floor Tan Area (Building 306)	15 storage tanks used to collect radioactive liquid waste for future processing.	N/A	HEPA Filters
High Bay Area with Evaporator/ Concentrator (Building 306)	Evaporator/concentrator system processes aqueous radioactive waste.	N/A	HEPA Filters
CP-5 Reactor	Facility D & D complete - awaiting final disposition	N/A	HEPA Filters

Emission Unit	Description	Date Constructed	Emission Control Equipment
Melt Attack and Coolability Experiment (MACE) (Building 315)	Designed to evaluate the use of water to terminate progression of a core melt accident in a light water reactor system.	N/A	Water Scrubber and HEPA Filters
Intense Pulsed Neutron Source (IPNS)	A pulsed proton beam is delivered onto a heavy metal target which emits a large number of neutrons	N/A	HEPA Filters
NBL - Plutonium Lab Air Handling System	Routine chemical and instrumental analyses of nuclear materials and the preparation and/or characterization of nuclear standards and reference materials are conducted.	N/A	HEPA Filters
NBL - Uranium Lab Air Handling System	Same as for NBL plutonium lab	N/A	HEPA Filters
Radionuclide Hoods	Experimentation involving the use of radioactive materials	N/A	HEPA Filters
Tritium-Rad Hoods	Hoods are used for tritium research activities and experiments	N/A	Ethylene glycol traps and HEPA Filters
Hot Cell D & D Project (Building 301)	Hot cell facility undergoing D & D	N/A	HEPA Filters
WMO Portable Filtration System	Filtration system for waste handling erected at equipment dismantlement sites.	N/A	HEPA Filters
Mixed Waste Storage Facility	Location where low-level radioactive waste generated by various R & D, D & D, and support activities are stored.	N/A	HEPA Filters
Radioactive Waste Facility	The building is used to store and process radioactive waste and mixed waste generated at ANL-E	N/A	HEPA Filters
Lead Brick Cleaning Project	Surface contamination from bricks is removed by a carbon dioxide pellet blasting process.	N/A	HEPA Filters
M-Wing Hot Cells (Building 200)	Past experiments that involved nuclear materials which emit Rn_{220}	[a]	HEPA Filters
Boiler #1	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	Pre-1972	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Boiler #2	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	Pre-1972	None
Boiler #3	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	Pre-1972	None
Boiler #4	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	Pre-1972	None
Boiler #5	170,000 lb/hr Steam Boiler, Dual Fueled (212 mmBtu/hr), Natural Gas or Coal.	Pre-1972	Baghouse and SO_2 Scrubber
PCB Cleanup	PCB contaminated sediments are removed from various tanks at the facility. After removal the tanks are cleaned with biodegradable solvent.	1995	None (portable HEPA filter system to control radionuclide emissions during the sludge removal process).
Bulking Sheds	These sheds house a bulking process for organic and corrosive acid wastes into 55 gallon drums.	1994	HEPA Filters
Wastewater Treatment Plant	The continuous flow wastewater treatment plant has the capability to treat wastewater for metals, suspended solids and organic compounds.	1995	None
APS Emergency Generator #1	1250 kW Caterpillar Diesel Generator	1994	None
APS Emergency Generator #2	1250 kW Kohler Diesel Generator	1994	None
APS Emergency Generator #3	1250kW Kohler Diesel Generator	1994	None
ANL-E Peak Shaving Generator (Building 200)	500 kW Diesel Generator	1989	None
ANL-E Peak Shaving Generator (Building 202)	500 kW Diesel Generator	1989	None
TRF Buildings Containing Test Engines	Various Internal Combustion Engines	1996	None[b]
Tank #2 (Building 46)	10,000 gallon gasoline underground storage tank	1990	Submerged filling pipe; Stage I and II vapor recovery
Tank #3 (Building 46)	10,000 gallon ethanol/gasoline underground storage tank	1990	Submerged filling pipe; Stage I and II vapor recovery
Tank #4 (Building 300)	10,000 gallon gasoline underground storage tank	1990	Submerged filling pipe; Stage I and II vapor recovery

Emission Unit	Description	Date Constructed	Emission Control Equipment
Tank #5 (Building 300)	8,000 gallon gasoline underground storage tank	1990	Submerged filling pipe; Stage I and II vapor recovery
Tank #6 (Building 300)	6,000 gallon gasoline underground storage tank	1990	Submerged filling pipe; Stage I and II vapor recovery

* N/A = Not applicable. All units which are designated N/A are subject only to a NESHAP (Subpart H of 40 CFR 61) for radionuclides. This rule is applicable regardless of date constructed and none of the construction permits for such units included a lb/hr limit. The limit for radionuclides is a calculated dose rate for all units.

[a] This unit emits only radon and thus not subject to 40 CFR 61 Subpart H. It is also not subject to 40 CFR 61 Subpart Q for radon emitting units because only sources listed in 40 CFR 61.190 are subject and Argonne is not listed.

[b] Some engines may be equipped with passive catalytic converters similar to those on passenger cars.

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of sulfur dioxide and nitrogen oxides emissions. The source also operates units subject to Section 112 of the CAA.

5.1.2 This permit is issued based on the source not being a major source of HAPs, VOM, or PM.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

c. No person shall cause or allow the emissions of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm pursuant to 35 IAC 214.301.

5.2.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

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

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

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

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

5.2.5 Future Requirements

a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

   i. Illinois EPA, Compliance Section; and

   ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or

   iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.2.7 Fugitive Emissions from Coal Storage Piles

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source. (35 IAC 212.301)

5.2.8 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or

modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	18.65
Sulfur Dioxide (SO_2)	332.20
Particulate Matter (PM)	66.02
Nitrogen Oxides (NO_x)	639.10
HAP, not included in VOM or Particulate Matter (Radionuclides)	10.00
TOTAL	1,065.97

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs. However, the source is subject to a NESHAP, 40 CFR 61 Subpart H for radionuclide emissions.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, or Section 502(b)(10) of the CAA.

5.6 General Recordkeeping Requirements

5.6.1 General Records

a. The Permittee shall maintain records of the following items for each steam plant boiler [Section 39.5(7)(b) of the Act]. These records shall be kept up to date for each steam plant boiler at the source and be retained until the steam plant boiler is removed from service.

   i. The date* on which construction of the emission unit was commenced, with a copy of supporting documentation;

   ii. The dates* on which modification or reconstruction as defined in the NSPS, 40 CFR 60.14 and 60.15 respectively, were commenced on the emission unit, if applicable;

   iii. The material type(s) and usage for each emission unit (i.e., natural gas burned); and

   iv. The rated or designed capacity for each emission unit (i.e., boiler heat capacity).

   * If a date is prior to April 14, 1972, a specific date is not needed and documentation need only show commencement of construction prior to this date.

b. For all units subject to 35 IAC 218 Subpart TT and which do not comply with the control requirements of 35 IAC 218.986(a) but use the deminimis exemption in §218.980(d), a record shall be kept of total annual VOM emissions from all units combined.

5.6.2 Records for Malfunctions and Breakdowns

N/A

5.6.3 Records for Emissions

N/A

5.6.4 Records for Operating Scenarios

None

5.6.5 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of

entry (unless a longer retention period is specified by the particular recordkeeping provision), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 Reporting of Malfunctions and Breakdowns

The Permittee shall provide the following notification and reports of the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation during a malfunction or breakdown.

a. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but not later than 3 days, upon the occurrence of noncompliance due to malfunction, or breakdown.

b. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or the unit taken out of service.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7 and the use of USEPA approved emissions estimating guidance.

6.0 EMISSIONS REDUCTION MARKET SYSTEM (ERMS)

6.1 Description of ERMS

The ERMS is a “cap and trade” market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold “allotment trading units” (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources’ CAAPP permits. These allotments are established from historical VOM emissions or “baseline emissions” lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account’s balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources’ transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the “Alternative Compliance Market Account” (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.2 Applicability

This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 IAC Part 205, pursuant to 35 IAC 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year

being less than 10 tons and the source's baseline emissions also being less than 10 tons.

6.3 Recordkeeping and Reporting

a. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 5 and 7 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;

ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 5 and 7 of this permit; and

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.

b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and beginning with the following seasonal allotment period, shall comply with 35 IAC Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in its CAAPP permit.

6.4 Federal Enforceability

Section 6.0 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit: Group 1 - Radionuclide Emitting Units

7.1.1 Description

The Permittee operates a large and constantly changing number of emission units that are regulated under 40 CFR 61 Subpart H, National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities. These units are regulated collectively by the standard set in 40 CFR 61 Subpart H.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Radionuclide Emitting Unit	Description	Emission Control Equipment
Alkali Metal Scrubber (Building 206)	A scrubbing process to safely dispose of sodium and occasionally other alkali metals	Venturi Scrubber and HEPA Filter
Advanced Photon Source (APS)	X-Ray radiation beams are produced by accelerating positrons in a circular path at speeds near that of light.	None
Alpha Gamma Hot Cell Facility	Irradiated nuclear fuel materials that contain plutonium, uranium, and mix-fission products are examined and tested.	Carbon Adsorber and HEPA Filter
Storage Rooms/Assay Room (Building 306)	Waste material is stored in rooms with concrete floors and cinder block walls with no windows. Assay room is for external viewing of closed waste drums	HEPA Filters
Sorting/ Decontamination/ Size Reduction Rooms (Building 306)	Radioactive, non-radioactive and mixed wastes are separated and reduced.	HEPA Filters
Waste Treatment R & D (Building 306)	Three waste treatment processes are being evaluated: 1) aqueous mixed waste, 2) solidification process, and 3) transuranic aqueous mixed waste.	HEPA Filters
Compactor/Vial Crusher and Chemical/Photo-oxidation Unit (Building 306)	Bulking of rad, mixed and organic wastes. Experimental Treatment of org. wastes	HEPA Filters

Radionuclide Emitting Unit	Description	Emission Control Equipment
Waste Treatment Rooms (Building 306)	Rooms contain a tank system used to neutralize acidic transuranic waste	HEPA Filters
Service Floor Tank Area (Building 306)	15 storage tanks used to collect radioactive liquid waste for future processing.	HEPA Filters
High Bay Area with Evaporator/ Concentrator (Building 306)	Evaporator/concentrator system processes aqueous radioactive waste.	HEPA Filters
CP-5 Reactor	Facility D & D complete - Awaiting final disposition	HEPA Filters
Melt Attack and Coolability Experiment (MACE) (Building 315)	Designed to evaluate the use of water to terminate progression of a core melt accident in a light water reactor system.	Water Scrubber and HEPA Filters
Intense Pulsed Neutron Source (IPNS)	A pulsed proton beam is delivered onto a heavy metal target which emits a large number of neutrons	HEPA Filters
NBL - Plutonium Lab Air Handling System	Routine chemical and instrumental analyses of nuclear materials and the preparation and/or characterization of nuclear standards and reference materials are conducted.	HEPA Filters
NBL - Uranium Lab Air Handling System	Same as for NBL plutonium lab	HEPA Filters
Radionuclide Hoods	Experimentation involving the use of radioactive materials	HEPA Filters
Tritium-Rad Hoods	Hoods are used for tritium research activities and experiments	Ethylene glycol traps and HEPA Filters
Hot Cell D & D Project (Building 301)	Hot cell facility undergoing D & D	HEPA Filters
WMO Portable Filtration System	Filtration system for waste handling erected at equipment dismantlement sites.	HEPA Filters
Mixed Waste Storage Facility	Location where low-level radioactive waste generated by various R & D, D & D, and support activities are stored.	HEPA Filters

Radionuclide Emitting Unit	Description	Emission Control Equipment
Radioactive Waste Facility	The building is used to store and process radioactive waste and mixed waste generated at ANL-E	HEPA Filters
Lead Brick Cleaning Project	Surface contamination from bricks is removed by a carbon dioxide pellet blasting process.	HEPA Filters
Bulking Sheds	These sheds house a bulking process for organic and corrosive acid wastes into 55 gallon drums that may include radionuclides. VOM emissions are covered in Section 7.5	HEPA Filters
Wastewater Treatment Plant	Emits tritium. VOM emissions are covered in Section 7.6	None

7.1.3 Applicability Provisions and Applicable Regulations

a. The “affected unit” for the purpose of these unit-specific conditions, are collectively those units that emit any radionuclide other than radon-222 and radon-220 in to the air.

As of the “date issued” as shown on Page 1 of this permit, the affected units are those identified in Condition 7.1.2. The M-Wing hot cells in Building 200 are not included because they emit radon and thus not subject to 40 CFR 61 Subpart H.

b. Emissions of radionuclides to the ambient air shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr. Compliance with this standard shall be determined by calculating the highest effective dose equivalent to any member of the public at any offsite point where there is a residence, school, business or office. (40 CFR 61.92)

7.1.4 Non-Applicability of Regulations of Concern

a. The source is not subject to 40 CFR 61 Subpart I because that subpart covers emissions not subject to 40 CFR 61 Subpart H and this source is subject to Subpart H.

b. The source is not subject to 40 CFR 61 Subpart K, Radionuclide Emissions for Elemental Phosphorus

Plants because this source does not produce elemental phosphorus.

c. This source is not subject to 40 CFR 61 Subpart Q although it is a Department of Energy Facility because it is not listed as an affected facility in 40 CFR 61.190.

7.1.5 Control Requirements

N/A

7.1.6 Emission Limitations

N/A

7.1.7 Operating Requirements

N/A

7.1.8 Monitoring Requirements

a. Radionuclide emissions shall be determined and effective dose equivalent values to members of the public calculated using USEPA approved sampling procedures, computer models CAP-88 or AIRDOS-PC, or other procedures for which USEPA has granted prior approval.

b. The following units listed in Condition 7.1.2 are monitored point sources: Advanced Photon Source, Alpha Gamma Hot Cell Facility, Intense Pulsed Neutron Source, NBL-Plutonium Lab Air Handling System, NBL-Uranium Lab Air Handling System and Tritium-Rad Hoods.

Radionuclide emission rates from point sources (stacks or vents identified in the paragraph above) shall be measured in accordance with the following requirements or other procedures for which the USEPA has granted prior approval:

i. Effluent flow rate measurements shall be made using the following methods:

A. Reference Method 2 of Appendix A to 40 CFR 60 shall be used to determine velocity and volumetric flow rates for stacks and large vents.

B. Reference Method 2A of Appendix A to 40 CFR 60 shall be used to measure flow rates through pipes and small vents.

C. The frequency of the flow rate measurements shall depend upon the variability of the effluent flow rate. For variable flow rates, continuous or frequent flow rate measurements shall be made. For relatively constant flow rates only periodic measurements are necessary.

ii. Radionuclides shall be directly monitored or extracted, collected and measured using the following methods:

A. Reference Method 1 of Appendix A part to 40 CFR 60 shall be used to select monitoring or sampling sites.

B. The effluent stream shall be directly monitored continuously with an in-line detector or representative samples of the effluent stream shall be withdrawn continuously from the sampling site following guidance presented in ANSI 13.1-1969 “Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities” (including the guidance presented in Appendix A of ANSI 13.1) (incorporated by reference). The requirements for continuous sampling are applicable to batch processes when the unit is in operation. Periodic sampling (grab samples) may be used only with USEPA’s prior approval. Such approval may be granted in cases where continuous sampling is not practical and radionuclide emission rates are relatively constant. In such cases, grab samples shall be collected with sufficient frequency so as to provide a representative sample of the emissions.

C. Radionuclides shall be collected and measured using procedures based on the principles of measurement described in 40 CFR 61 Appendix B, Method 114. Use of methods based on principles of measurement different from those described in 40 CFR 61 Appendix B, Method 114 must have prior approval for the Administrator. USEPA reserves the right to approve measurement procedures.

D. A quality assurance program shall be conducted that meets the performance

requirements described in 40 CFR 61 Appendix B, Method 114.

iii. When it is impractical to measure the effluent flow rate at an existing source in accordance with the requirements of paragraph (1) of this section or to monitor or sample an effluent stream at an existing source in accordance with the site selection and sample extraction requirements of paragraph (2) of this section, the Permittee or operator may use alternative effluent flow rate measurement procedures or site selection and sample extraction procedures provided that:

A. It can be shown that the requirements of paragraph (1) and (2) of this section are impractical for the effluent stream.

B. The alternative procedure will not significantly underestimate the emissions.

C. The alternative procedure is fully documented.

D. The owner or operator has received prior approval from USEPA.

iv. Release points which require measurements:

A. Radionuclide emission measurements in conformance with the requirements of paragraph (a) and (b) of this section shall be made at all release points which have a potential to discharge radionuclides into the air in quantities which could cause an effective dose equivalent in excess of 1% of the standard. All radionuclides which could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured. As an alternative to periodic confirmatory measurements for low emissions, ANL-E shall account for these emissions in accordance with the March 3, 1993 agreement between DOE and USEPA Region V.

B. To determine whether a release point is subject to the emission measurement requirements of paragraph (a) and (b) of this section, it is necessary to evaluate the potential for radionuclide emissions

for that release point. In evaluating the potential of a release point to discharge radionuclides into the air for the purposes of this section, the estimated radionuclide release rates shall be based on the discharge of the effluent stream that would result if all pollution control equipment did not exist, but the facility's operations were otherwise normal.

iv. Environmental measurements of radionuclide air concentrations at critical receptor locations may be used as an alternative to air dispersion calculations in demonstrating compliance with the standard if the owner or operator meets the following criteria:

A. The air at the point of measurement shall be continuously sampled for collection of radionuclides.

B. Those radionuclides released from the facility, which are the major contributors to the effective dose equivalent must be collected and measured as part of the environmental measurement program.

C. Radionuclide concentrations which would cause an effective dose equivalent of 10% of the standard shall be readily detectable and distinguishable from background.

D. Net measured radionuclide concentrations shall be compared to the concentration levels in Table 2 or 40 CFR 61 Appendix E to determine compliance with the standard. In the case of multiple radionuclides being released from a facility, compliance shall be demonstrated if the value for all radionuclides is less than the concentration level in Table 2, and the sum of the fractions that result when each measured concentration value is divided by the value in Table 2 for each radionuclide is less than 1.

E. A quality assurance program shall be conducted that meets the performance requirements described in 40 CFR 61 Appendix B, Method 114.

F. Use of environmental measurements to demonstrate compliance with the standard is subject to prior approval of USEPA. Applications for approval shall include a detailed description of the sampling and analytical methodology and show how the above criteria will be met.

c. All units listed in Condition 7.1.2 but not identified in Condition 7.1.8(b) as point sources with a specific monitoring method are to have radionuclide emissions calculated using the estimation method in 40 CFR 61 Appendix D.

7.1.9 Recordkeeping Requirements

The Permittee must maintain records documenting the source of input parameters including the results of all measurements upon which they are based, the calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determine effective dose equivalent. This documentation should be sufficient to allow an independent auditor to verify the accuracy of the determination made concerning the source's compliance with the standard. These records must be kept at the site of the source for at least five years and, upon request, be made available for inspection by the Illinois EPA.

7.1.10 Reporting Requirements

a. The Permittee shall submit an annual report to both USEPA headquarters and the appropriate regional office by June 30 which includes the results of the monitoring and the dose calculations required by the first paragraph of Condition 7.1.8 for the previous calendar year.

b. In addition to the requirements of paragraph (a) of this section, an annual report shall include the following information:

i. The name and location of the source.

ii. A list of the radioactive materials used at the source.

iii. A description of the handling and processing that the radioactive materials undergo at the source.

iv. A list of the stacks or vents or other points where radioactive materials are released to the atmosphere.

v. A description of the effluent controls that are used on each stack, vent, or other release point and an estimate of the efficiency of each control device.

vi. Distances from the points of releases to the nearest residence, school, vent, or other release point and an estimate of the efficiency of each control device.

vii. The values used for all other user-supplied input parameters for the computer models (e.g., meteorological data) and the source of these data.

viii. A brief description of all construction and modifications which were completed in the calendar year for which the report is prepared, but for which the requirement to apply for approval to construct or modify was waived under 40 CFR 61.96 and associated documentation developed by DOE to support the waiver. USEPA reserves the right to require that DOE send to USEPA all the information that normally would be required in an application to construct or modify, following receipt of the description and supporting documentation.

ix. Each report shall be signed and dated by a corporate officer or public official in charge of the source and contain the following declaration immediately above the signature line: "I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment." See, 18 U.S.C. 1001.

c. If the source is not in compliance with the emission limits of Condition 7.1.3(b) in the calendar year covered by the report, then the source must commence reporting to the Administrator on a monthly basis the information listed in paragraph (b) of this section, for the preceding month. These reports will start the month immediately following the submittal of the annual report for the year in noncompliance and will be due 30 days following the end of each month. This

increased level of reporting will continue until the Administrator has determined that the monthly reports are no longer necessary. In addition to all the information required in paragraph (b) of this section, monthly reports shall also include the following information:

i. All controls or other changes in operation of the source that will be or are being installed to bring the source into compliance.

ii. If the source is under a judicial or administrative enforcement decree, the report will describe the facilities performance under the terms of the decree.

iii. In those instances where the information requested is classified, such information will be made available to USEPA separate from the report and will be handled and controlled according to applicable security and classification regulations and requirements.

7.1.11 Operational Flexibility

The Permittee is hereby authorized to operate all radionuclide emitting units listed in Group 1. The Permittee may also operate new or modified units that would fit into this group (subject to regulations under 40 CFR 61 Subpart H) after obtaining a construction permit. The Permittee must at all times meet the requirements of Condition 7.1.3(b) considering all radionuclide emitting units that are operating.

7.1.12 Compliance Procedures

Compliance with the exposure limitations is determined by the monitoring and testing required by Condition 7.1.8, the recordkeeping requirements of Condition 7.1.9 and the reporting requirements of Condition 7.1.10.

7.2 Unit: Steam Plant Boilers (Gas/Oil-Fired)

7.2.1 Description

The Permittee operates a steam boiler plant which houses four dual fueled, natural gas and distillate oil, steam boilers used for heating the source.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Steam Boiler Unit	Description	Emission Control Equipment
Boiler #1	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	None
Boiler #2	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	None
Boiler #3	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	None
Boiler #4	85,000 Lb/Hr (106 mmBtu/Hr) Dual Fueled Steam Boiler	None

7.2.3 Applicability Provisions and Applicable Regulations

a. An “affected boiler” for the purpose of these unit-specific conditions, is a dual fuel (natural gas or oil) fired, 85,000 lb/hr steam boiler. The affected boilers are those identified in Condition 7.2.2.

b. The emissions of particulate matter into the atmosphere in any one hour period shall not exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmBtu) [35 IAC 212.206].

c. The emissions of sulfur dioxide (SO_2) into the atmosphere in any one hour period from any affected boiler burning liquid fuel exclusively shall not exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.161(b)].

d. The emissions of carbon monoxide (CO) into the atmosphere from any affected boiler with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air. [35 IAC 216.121]

e. Each affected boiler is subject to the emission limits identified in Condition 5.2.2.

7.2.4 Non-Applicable Regulations

a. The affected boilers are not subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Db because the boilers were constructed prior to June 19, 1984.

b. The affected boilers are not subject to 35 IAC 217.141, Existing Fuel Combustion Units in Major Metropolitan Areas, since the actual heat input of each of the boilers is less than 73.2 MW (250 mmBtu/hr).

c. The affected boilers are not subject to 35 IAC 218.301, Use of Organic Material, as pursuant to 35 IAC 218.303, Fuel Combustion Emission Units are excluded from this requirement.

7.2.5 Control Requirements

N/A

7.2.6 Emission Limitations

N/A

7.2.7 Operating Requirements

a. Natural gas and distillate fuel oil #2 shall be the only fuels fired in the affected boilers.

b. When the affected boilers are operated in their alternative operating scenario of burning distillate fuel oil, the sulfur content of the distillate oil will be limited. The boilers will not utilize distillate (diesel) fuel with a sulfur content greater than the larger of the following two values:

i. 0.28 weight percent, or

ii. The weight percent given by the following formula:

Maximum Weight Percent Sulfur = (0.000015) x (Gross Heating Value of Oil, Btu/lb)

7.2.8 Emission Monitoring and Testing Requirements

N/A

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected boiler to demonstrate compliance pursuant to Section 39.5(7)(b) of the Act:

a. Amount of natural gas (mmscf/mo) and distillate fuel (gal/mo) used;

b. Sulfur content of distillate fuel. In lieu of analysis of fuel in the storage tank after each shipment, the Permittee may keep records of sulfur content analysis (% by wt.) and gross heating value of the oil (mmBtu/lb) provided by the supplier for each shipment;

c. Firing rates for each fuel;

d. Hours of operation for each fuel; and

e. Annual aggregate SO_2, PM, NO_x, and CO emissions based on natural gas consumption and distillate oil consumption for each boiler and the applicable emission factors from Condition 7.2.12(d) with supporting calculations.

7.2.10 Reporting Requirements

N/A

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The units will be allowed to burn either natural gas or oil at any time during the year without limit to hours of operation on any one fuel.

7.2.12 Compliance Procedures

a. Compliance with Conditions 7.2.3(b) and (d) are assumed to be achieved by the work practices inherent in operation of a natural gas/distillate oil-fired boiler, thus no compliance procedures are set in this permit addressing these regulations.

b. Compliance with Condition 7.2.3(c), shall be based on the recordkeeping requirements in Condition 7.2.9 and the following formula:

SO_2 Emissions (Lb/mmBtu) = (2 SO_2/S) x (Weight Percent Sulfur in the Fuel)/(Gross Heating Value of Oil, mmBtu/Lb)

c. Compliance with Condition 7.2.7(a) and (b), shall be based on recordkeeping requirements in Condition 7.2.9(a) and (b).

d. To determine compliance with Condition 5.5.1, emissions from the affected boilers shall be based on the emission factors and formulas listed below:

Pollutant	Natural Gas Emission Factor (lb/mmBtu)
PM	0.0030
NO_x	0.2750
CO	0.0825
SO_2	0.0006
VOM	0.0014

These are the emission factors for uncontrolled natural gas combustion in large wall-fired boilers (> 100 mmBtu/hr), Table 1.4-1, and Table 1.4-2 AP-42, Volume I, Supplement B, February, 1998. The factors were adjusted from lb/mmscf to lb/mmBtu.

Pollutant	Fuel Oil #2 Emission Factor ($lb/10^3$ gal)
PM	2.0
NO_x	24
VOM	0.2
CO	5
SO_2	142 S*

* S is sulfur content (wt. %)

These are the emission factors for uncontrolled fuel oil combustion in utility boilers, normal firing, Table 1.3-1 and Table 1.3-3, AP-42, Volume I, Supplement B, September, 1998.

7.3 Unit: Steam Plant - Boiler #5

7.3.1 Description

The Permittee operates a steam plant which houses a coal/gas-fired steam boiler used for heating the source. Although the boiler is equipped with a spray dryer adsorber (SO_2 scrubber) to reduce SO_2 emissions if high sulfur coal is burned, typically the boiler burns low sulfur coal without the use of the scrubber. The baghouse is used to reduce PM emissions if either type of coal is burned. Low sulfur coal is defined as coal which complies with 35 IAC 214.141 without the use of the scrubber. High sulfur coal is coal which does not comply with 35 IAC 214.141 without the use of control equipment.

7.3.2 List of Emission Equipment and Pollution Control Equipment

Steam Boiler Unit	Description	Emission Control Equipment
Boiler #5	170,000 lb/hr Steam Boiler, Dual Fueled (212 mmBtu/hr), Natural Gas or Coal.	Baghouse and SO_2 Scrubber

7.3.3 Applicability Provisions and Applicable Regulations

a. The “affected boiler” for the purpose of these unit-specific conditions, is a coal or gas-fired 170,000 lb/hr (212 mmBtu/hr) steam boiler for which construction or modification commenced prior to April 14, 1972, with actual heat input greater than 2.9 MW (10 mmBtu/hr) and less than, or equal to, 73.2 MW (250 mmBtu/hr), which burns solid fuel and which is located within the Chicago major metropolitan areas.

b. i. 35 IAC 212.203 states that notwithstanding Section 212.201 and Section 212.202, any fuel combustion emission unit for which construction or modification commenced prior to April 14, 1972, using solid fuel exclusively may, in any one hour period, emit up to, but not exceed 0.20 lb/mmBtu particulate matter, if as of April 14, 1972, any one of the following conditions was met:

A. The emission unit had an hourly emission rate based on original design or equipment performance test conditions, whichever is stricter, which was less than 0.20 lb/mmBtu of actual heat input, and the emission control more than 0.05

lb/mmBtu from such original design or acceptance test condition; or

B. The emission unit was in full compliance with the terms and conditions of a variance granted by the Pollution Control Board (Board) sufficient to achieve an hourly emission rate less than 0.20 lb/mmBtu, and construction has commenced on equipment or modifications prescribed under that program; and emission control of such emission unit is not allowed to degrade more than 0.05 lb/mmBtu from original design or equipment performance test conditions, whichever is stricter; or

C. The emission unit had an hourly emission rate based on original design or equipment performance test conditions, whichever is stricter, which was less than 0.20 lb/mmBtu of actual heat input, and the emission control of such emission unit is not allowed to degrade more than 0.05 lb/mmBtu from that rate demonstrated by the most recent stack test, submitted to and accepted by the Illinois EPA prior to April 1, 1995 provided that:

1. Owners and operators of emission units subject to this subsection shall have applied for a new operating permit by January 9, 1987; and

2. The application for a new operating permit shall have included a demonstration that the proposed emission rate if greater than the emission rate allowed by subsections (a) or (b) of this Condition, will not under any foreseeable operating conditions and potential meteorological conditions cause or contribute to a violation of any applicable primary or secondary ambient air quality standard for particulate matter, or violate any applicable prevention of significant deterioration increment, or violate 35 IAC 201.141.

ii. If the spray-dryer absorber is used as a SO_2 control device, PM emissions are subject to the following:

> No person shall cause or allow the emission of particulate matter into the atmosphere from coal-fired industrial boilers equipped with flue gas desulfurization systems for which construction or modification commenced prior to April 14, 1972, to exceed 0.39 kg of particulate matter per MW-hr of actual heat input in any one-hour period (0.25 lbs/mmBtu) [35 IAC 212.205].

c. No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one-hour period from any existing fuel combustion source, burning solid fuel exclusively, located in the Chicago major metropolitan area, to exceed 1.8 pounds of sulfur dioxide per mmBtu of actual heat input (774 nanograms per joule) [35 IAC 214.141].

d. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 parts per million, corrected to 50 percent excess air [35 IAC 216.121].

e. The affected boiler is subject to the emission limits identified in Condition 5.2.2(b).

7.3.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected boiler not being subject to the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units for which construction, modification, or reconstruction was commenced after June 19, 1984 and that have a design heat input capacity of 29 MW (100 mmBtu/hr) or greater, 40 CFR 60, Subpart Db, because the affected boiler was constructed prior to 1984 and has not been modified since.

b. This permit is issued based on the affected boiler not being subject to 35 IAC 218.301, Use of Organic Material, because 35 IAC 218.303 states that the provision of 35 IAC 218.301 shall not apply to fuel combustion emission units.

c. The affected boilers are not subject to 35 IAC 217.141, Existing Fuel Combustion Units in Major

Metropolitan Areas, since the actual heat input of the boilers is less than 73.2 MW (250 mmBtu/hr).

d. The combination of fuels rule, 35 IAC 214.162, cannot be used for this boiler as there is no allowable SO_2 emission rate for natural gas.

7.3.5 Control Requirements

a. If the spray dryer adsorber is used to reduce SO_2 emissions, the adsorber shall be operated in accordance with manufacturer's instructions so as to reduce emissions to meet 35 IAC 214.141 (See Condition 7.3.3(b).

b. The baghouse shall be operated according to manufacturer's instruction so as to reduce PM emissions to meet 35 IAC 212.203 or 212.205 [See Condition 7.3.3(b)].

7.3.6 Emission Limitations

N/A

7.3.7 Operating Requirements

a. Coal and natural gas shall be the only fuel burned in the affected boiler.

b. If low sulfur coal is used, the sulfur content shall be low enough to assure compliance with 35 IAC 214.141 [Condition 7.3.3(c)].

c. At the Permittee's request, consumption of coal is limited to 12,000 tons/ calendar year.

7.3.8 Emission Monitoring and Test Requirements

a. Continuous monitoring systems for the demonstration of the opacity limits of Condition 5.2.2(b) and the sulfur dioxide limits of Condition 7.3.3(c) shall be operated when coal is burned.

b. Upon request by the Illinois EPA, pursuant to Section 39.5(7)(d) of the Act, the Permittee shall measure PM, CO, and SO_2 emission rates from the boilers employing the appropriate methods in 40 CFR 60, Appendix A so as to demonstrate compliance with Conditions 7.3.3(b), (c), and (d). The Permittee shall retain a copy of such tests and promptly submit the results to the Illinois EPA within 30 days.

7.3.9 Recordkeeping Requirements

a. Records of all tests which are performed pursuant to Condition 7.3.3(b), (c) and (d) for the measurement of PM, CO, or SO_2 emissions shall be kept. These monitors are not required if only gaseous fuel is used.

b. Records on the operation of the opacity and SO_2 continuous monitoring system shall be kept.

c. In addition to the above and Condition 5.6, the Permittee shall maintain records for the following items for the affected boiler to demonstrate compliance pursuant to Section 39.5(7)(b) of the Act:

   i. Amount of coal and natural gas used per calendar year.

   ii. Sulfur content of coal used as determined from a representative sample on at least a monthly basis if a new shipment of coal has been received. The coal pile does not have to be retested if new coal has not been received.

   iii. Firing rates for each fuel.

   iv. Hours of operation for each fuel. The specific times when coal is burned shall be noted so that operation of the baghouse and CEMs for opacity and SO_2 may be correlated with the coal burning.

   v. When the baghouse is operating, information that indicates proper operation of the baghouse shall be kept, such as pressure drop across the baghouse (if separate compartments then a value for each compartment, once/shift). This is in addition to the opacity monitor.

   vi. When the spray dryer absorber is operating, information that indicates proper operation of the absorber shall be kept, such as scrubbant flow rate (once/shift). This is in addition to the SO_2 monitor.

   vii. A log of the operating time for the capture systems, control device, monitoring equipment and the associated emission unit when burning coal.

d. Monthly and annual aggregate SO_2, PM, NO_x, and CO emissions, shall be kept based on natural gas consumption and the applicable gas-fired emission factors from Condition 7.2.12(d), with supporting calculations. For coal burning the most recent emission test factors may be used.

7.3.10 Reporting Requirements

Within 45 days of the end of each calendar quarter, the Permittee will submit to Illinois EPA a report for the preceding quarter of any and all opacity measurements which exceed 30 percent, averaged over a six minute period. These excess opacity reports will provide, for each incident, the percent opacity measured as well as the date and span of each incident. The report will also specify whether it occurred during startup, shutdown, or malfunction. If a malfunction is indicated in the report, all corrective actions taken by the Permittee will be documented. The report will also document the periods during the preceding calendar quarter that the continuous monitoring system was not in operation.

Within 45 days of the end of each calendar quarter, the Permittee will submit to the Illinois EPA a report for the preceding quarter of any and all sulfur dioxide measurements which exceed Condition 7.3.3(c). These reports will provide, for each incident, the sulfur dioxide measurement as well as the date and span of each incident. The report will also specify whether it occurred during startup, shutdown or malfunction. If a malfunction is indicated in the report, all corrective action taken by the Permittee will be documented. The report will also document the periods during the preceding calendar quarter that the continuous monitoring system was not in operation.

7.3.11 Operational Flexibility

The unit will be allowed to burn either coal or natural gas at any time during the year without limit to hours of operation on any one fuel.

7.3.12 Compliance Procedures

a. Compliance with Condition 7.3.3 is assumed based on compliance with the operating requirements of Condition 7.3.7, the monitoring requirements of Condition 7.3.8, the recordkeeping requirements of Condition 7.3.9 and the reporting requirements of Condition 7.3.10.

b. The following emission factors, based on emissions testing, shall be used for calculating emissions when

firing low sulfur coal and without the use of the spray dryer absorber.

Pollutant	Emission Factor (lb/mmBtu)
NO_x	0.423
CO	0.20
PM_{10}	0.003
VOM	0.0014

SO_2 emissions shall be calculated from the continuous monitoring data required by Condition 7.3.8(b).

Emission (lb/hr) = Fuel Usage (lb/hr) x Coal Heat Value (mmBtu/lb) x Emission Factor (lb/mmBtu)

c. The following emission factors shall be used for calculating emissions when firing natural gas.

Pollutant	Emission Factor (lb/mmBtu)
NO_x	0.1200
CO	0.0825
PM	0.0030
SO_2	0.0006
VOM	0.0014

Except for NO_x, these are the emission factors for uncontrolled natural gas combustion in large wall-fired boilers (> 100 mmBtu/hr), the NO_x factor is burner manufacturer's guarantee value, Table 1.4-1, and Table 1.4-2 AP-42, Volume I, Supplement B, February, 1998. The factors were adjusted from lb/mmscf to lb/mmBtu.

7.4 Unit PCB Cleanup

7.4.1 Description

The Permittee operates a process for removing PCB contaminated sediments from waste retention tanks in a number of buildings at the source. Following the removal of the contaminated sediments, each tank is cleaned three times with 150 gallons of biodegradable solvent. The tanks are used for the collection of wastewater from various R & D activities.

7.4.2 List of Emission Equipment and Pollution Control Equipment

PCB Cleanup Units	Description	Emission Control Equipment
PCB Cleanup	PCB contaminated sediments are removed from various tanks at the source. After removal the tanks are cleaned with biodegradable solvent.	None (portable HEPA filter system to control radionuclide emissions during the sludge removal process).

7.4.3 Applicability Provisions and Applicable Regulations

a. The “affected units” for the purpose of these unit-specific conditions, are collectively those units which emit organic material during cleanup. The affected units are those identified in Condition 7.4.2.

b. No person shall cause or allow the emission of more than 8 lb/hr of organic material into the atmosphere from any emission unit except as specified in 218.301, 218.302, 218.303 and 218.304. If no odor nuisance the limitations shall only apply to photochemically reactive material as defined in 35 IAC 211.4690. (35 IAC 218.301 and 218.302) Since there is no control equipment, and the photochemical nature of the organic material has not been established, the Permittee has agreed to limit VOM emissions to less than 8 lb/hr, calculated as an average rate during each cleaning process.

7.4.4 Non-Applicable Regulations of Concern

N/A

7.4.5 Control Requirements

N/A

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected PCB cleanup operation is subject to the following:

Emissions from the affected PCB cleanup operation shall not exceed the following limits:

VOM Emissions	
(Lb/Hr)	(Ton/Year)
4.7	3.53

These limits are based on the maximum rate but not continuous operation.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 97050035, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.4.7 Operating Requirements

None

7.4.8 Inspection Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank cleanup to demonstrate compliance with Conditions 5.5.1 and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

a. Usage of solvent for cleanup (lbs);

b. VOM content of cleanup solvent;

c. Record of time for a typical cleanup so that VOM per hour may be calculated. A record for each individual cleanup does not have to be kept; and

d. VOM emissions (lb/hr).

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected cleanup operation with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Exceedance of the limits in Condition 7.4.6; and

b. Exceedance of the limit in Condition 7.4.3(b).

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

a. Compliance with Condition 7.4.3 is assured if the emission rate does not exceed the limit in Condition 7.4.6 and for which records are required by Condition 7.4.9.

b. VOM Emissions (lb/mo) = Usage (Loss) rate of VOM containing cleaning solvent times VOM content.

7.5 Unit WMO Waste Bulking Sheds

7.5.1 Description

The Permittee operates waste bulking sheds for the bulking of organic and corrosive acid wastes into 55 gallon drums. These prefabricated buildings are specifically designed for hazardous waste handling and storage. This unit was included in Section 7.1 as it can also emit radionuclides, but VOM emissions are addressed in this section.

7.5.2 List of Emission Units and Air Pollution Control Equipment

WMO Waste Bulking Sheds Unit	Description	Emission Control Equipment
Bulking Sheds	These sheds house a bulking process for organic and corrosive acid wastes into 55 gallon drums.	HEPA Filters[a]

[a] Although usually considered to be pollution control equipment, operation of the filters is not required to comply with any of the applicable rules.

7.5.3 Applicability Provisions and Applicable Regulations

a. An “affected bulking shed process” for the purpose of these unit specific conditions is a process in which organic or corrosive acids are transferred into 55 gallon drums. The units are listed in Condition 7.5.2.

b. Each transfer into drums is subject to 35 IAC 218.301. This rule requires that emissions of VOM not exceed 8 lb/hr if, but if there is no odor nuisance the limitation only applies to photochemically reactive material pursuant to the definition in 35 IAC 211.4690. Although subject to the rule, the specialized nature of the process is unlikely to ever approach an emission rate of 8 lb/hr and therefore special records of loading rate per hour are not required. Records of annual loading must be kept. See Condition 7.5.9.

7.5.4 Non-Applicable Regulations

N/A

7.5.5 Control Requirements

N/A

7.5.6 Emission Limitations

N/A

7.5.7 Operating Requirements

N/A

7.5.8 Emission Monitoring and Test Requirements

N/A

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected bulking shed to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

The throughput of acid wastes on an annual basis.

7.5.10 Reporting Requirements

N/A

7.5.11 Operational Flexibility

N/A

7.5.12 Compliance Procedures

N/A

7.6 Unit Laboratory Wastewater Treatment Plant

7.6.1 Description

The Permittee operates a continuous flow wastewater treatment plant with treatment capabilities as needed for a variety of contaminants found in the laboratory wastewater (heavy metals, suspended solids and organic compounds). The treatment plant consists of 21 tanks used for wastewater aeration, equalization, mixing and cationic and anionic polymer storage. In addition, there are sulfuric acid, sodium hydroxide and alum storage tanks as well as a filter press. This unit was included in Section 7.1 as it can also emit radionuclides, but VOM emissions are addressed in this section.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Laboratory Wastewater Treatment Plant Unit	Description	Emission Control Equipment
Wastewater Treatment Plant	The continuous flow wastewater treatment plant has the capability to treat wastewater for metals, suspended solids and organic compounds.	None

7.6.3 Applicability Provisions and Applicable Regulations

An affected laboratory wastewater treatment plant, for the purposes of these unit-specific conditions is a treatment plant that processes only wastewater generated on site. As of the date issued, the plant includes equipment described in Condition 7.6.1.

7.6.4 Non-Applicable Regulations

a. The affected laboratory wastewater treatment plant is not subject to 35 IAC 218 Subpart TT because the source is not major for VOM and therefore the potential to emit VOM is less than 25 tons/yr.

b. Although the treatment plant is not exempt from 35 IAC 212 Subpart L, the treatment plant is not considered to be a PM emitting unit.

7.6.5 Control Requirements

N/A

7.6.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected wastewater treatment plant is subject to the following:

N/A

7.6.7 Operating Requirements

N/A

7.6.8 Emission Monitoring and Testing Requirements

N/A

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected laboratory wastewater treatment plant to demonstrate compliance with Condition 5.5.1 pursuant to Section 39.5(7)(b) of the Act:

Annual emissions of VOM and HAPs, using the method specified in Condition 7.6.12.

7.6.10 Reporting Requirements

N/A

7.6.11 Operational Flexibility

N/A

7.6.12 Compliance Procedures

Emissions of VOM, including specific HAP species, shall be calculated using the USEPA Water8 Modeling procedure.

7.7 Emission Unit - APS Emergency Generators and 200/202 Peak Shaving Generators

Control: None

7.7.1 Description

The Permittee operates three emergency diesel generators when normal power sources are interrupted and for limited times during the peak ozone season in periods of high electrical demand. Two additional diesel generators (500 kW each) may also be operated during high demand periods. These units, are process emission units and not fuel combustion units.

7.7.2 List of Emission Equipment and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
APS Emergency Generator #1	1250 kW Caterpillar Diesel Generator	None
APS Emergency Generator #2	1250 kW Kohler Diesel Generator	None
APS Emergency Generator #3	1250 kW Kohler Diesel Generator	None
ANL-E Peak Shaving Generator (Building 200)	500 kW Diesel Generator	None
ANL-E Peak Shaving Generator (Building 202)	500 kW Diesel Generator	None

7.7.3 Applicable Provisions

a. An “affected generator” for the purpose of these unit-specific conditions, are the units listed in Condition 7.7.2.

As of the “date issued” as shown on Page 1 of this permit, the affected units are those identified in Condition 7.7.2.

b. The affected units are subject to Condition 5.2.2(b) and (c).

7.7.4 Non-Applicable Requirements

Although as process emission units, the units could be subject to 212.321, the term process weight rate cannot be reasonably applied to these units and thus no allowable rate can be calculated.

7.7.5 Control Requirements

N/A

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected emergency generators are subject to the following:

Emissions from the affected emergency generators shall not exceed the following limits:

Item of Equipment	EMISSIONS NO_x (lbs/hr)	NO_x (T/yr)	CO (lbs/hr)	CO (T/yr)	SO_2 (lbs/hr)	SO_2 (T/yr)
Caterpillar	31.1	3.17	5.97	0.61	2.57	0.26
Kohler 1	28.2	3.21	20.90	2.38	5.79	0.66
Kohler 2	28.2	3.21	20.90	2.38	5.79	0.66
Totals:		9.59		5.37		1.58

These limits are based on the maximum operating rate and the hours listed in Condition 7.7.7.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 94030044, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.7.7 Operating Limitations

a. In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected generators are subject to the following:

Operation of the affected APS emergency generators shall not exceed the following limits:

Unit	Hours of Operation for Disrupted Power and Maintenance	Hours of Operation During Ozone Season, May-September
Caterpillar	124	80
Kohler (Each)	148	80

These limits are at the Permittee’s request in previously issued Permit 94030044.

b. Although generators are not fuel combustion devices and therefore not subject to 35 IAC 214.161(b), the Permittee has agreed to only use diesel fuel that meets the following requirements [T1]:

i. Distillate fuel oil (Grades No. 1 and 2) with a sulfur content less than the larger of the following two values:

A. 0.28 weight percent, or

B. The wt. percent given by the formula: Maximum wt. percent sulfur = (0.000015) x (Gross heating value of oil, Btu/lb).

ii. Organic liquid by-products or waste materials shall not be used in these fuel combustion emission sources without written approval from the Illinois EPA.

iii. The Illinois EPA shall be allowed to sample all fuels stored at the above location.

c. The peak-shaving generators were not required to have state construction/operating permits because they were exempt under 35 IAC 201.146(i), but are not insignificant emission units pursuant to 35 IAC 201.210 or 201.211. The Permittee has voluntarily agreed to limit the hours of operation of the peak-shaving generators to 120 hours per year (each), but that limit is not from a construction permit.

7.7.8 Emission Monitoring and Test Requirements

N/A

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected generator to demonstrate compliance pursuant to Section 39.5(7)(b) of the Act:

a. Hours of operation of each generator;

b. Usage of oil in each unit; and

c. Emissions of NO_x, CO, PM, SO_2 and VOM (combined for all units).

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected generator

with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Hours of operation in excess of limits in Condition 7.7.7(a).

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

General Procedures for Calculating Emissions

a. Compliance with the source-wide emission limits specified in Condition 5.5 and the source-wide limits of Condition 5.2.2 is assured by normal operation of the generators.

b. Distillate Fuel Oil - Use of the following emission factors from manufacturer's specifications:

	Factor (lb/hr)	
Pollutant	Caterpillar	Kohler
NO_x	31.1	28.2
CO	5.97	20.9
SO_2	2.57	5.79
VOM	0.84	1.0
PM	1.10	1.10

Emissions = Engine Run-Time (hr) x Emission Factor (lb/hr) x (1 ton/2000 lb)

7.8 Unit: Transportation Research Facility

7.8.1 Description

The Transportation Research Facility (TRF) is designed to conduct research on a variety of internal combustion engines. Research efforts are to evaluate methods of emission reduction and efficiency as well as to conduct studies on improving durability for both engines using a variety of fuels. The gasoline drums used to fuel these engines is an insignificant emission unit listed in Section 3.0 of this permit.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
TRF Buildings Containing Test Engines	Various Internal Combustion Engines	None[a]

[a] Some engines may be equipped with passive catalytic converters similar to those on passenger cars.

7.8.3 Applicability Provisions and Applicable Regulations

a. The “affected internal combustion engine” for the purpose of these unit-specific conditions, is an engine burning gasoline, diesel fuel, ethanol/gasoline (E85), hydrogen, hydrogen-natural gas blends, or compressed natural gas for purposes of testing or research on engine performance.

b. Each affected engine is subject to the emission limits identified in Condition 5.2.2.

c. Each engine is subject to 35 IAC 218 Subpart TT. Since the engines do not have control equipment that comply with 35 IAC 218.986(a), the Permittee employs the provisions in 35 IAC 218.980(d) which states that:

> No limits under Subpart TT shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year if the total emissions from such emission units not complying with Section 219.986 of this Part does not exceed 4.5 Mg (5.0 tons) per calendar year. Each engine is considered to be an emission unit.

7.8.4 Non-Applicability of Regulations of Concern

N/A

7.8.5 Control Requirements

None

7.8.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected emission units are subject to the following:

Emissions from the affected engines shall not exceed the following limits:

	E M I S S I O N S	
Pollutant	(ton/mo)	(ton/year)
NO_x	7.5	30.0
CO	7.5	30.0
VOM	0.75	3.0
SO_2	0.75	3.0
PM_{10}	0.50	2.0

These limits are based on the maximum expected operating rate.

Compliance with annual limits shall be determined from a rolling total of 365 days. [T1].

The above limitations were established in Permit 96050057, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.8.7 Operating Requirements

Gasoline, diesel, ethanol/gasoline (E85), hydrogen, hydrogen/natural gas blends and natural gas shall be the only fuels used for engine testing.

7.8.8 Inspection Requirements

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected engine to demonstrate compliance with Conditions 5.5.1 and 7.8.6, pursuant to Section 39.5(7)(b) of the Act:

a. Operating hours (hr/day, hr/mo, and hr/yr) for each engine type;

b. Horsepower and the type of fuel (i.e., gasoline, diesel, natural gas) for each engine type; and

c. Emissions from engine testing source (lb/day, ton/mo, and ton/yr).

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected engines combined with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Annual emissions (i.e., total of any 365 day period) of any pollutant exceeding the limits in Condition 7.8.6.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected engines without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Individual engines may be replaced provided that the limit in Condition 7.8.6 is not exceeded.

7.8.12 Compliance Procedures

a. The following emission factors shall be used:

	Emissions (lb/hp-hr) Type of Engine				
Pollutant	Gasoline	Diesel	Natural Gas/Hydrogen-Natural Gas Blends	Ethanol/Gasoline (E85)	Hydrogen
CO	0.439	0.067	0.0035	0.81435	No Emissions
NO_x	0.011	0.031	0.025	0.0396	0.098
PM_{10}	0.00072	0.0022	0.0035	0.00072	No Emissions
SO_2	0.00059	0.0020	0.0020	0.00059	No Emissions
VOM	0.022	0.0025	0.0016	0.0574	No Emissions

b. Emissions (lb/hr) = Operating Hours (hr/mo) x Horsepower rating x Appropriate Emission Factor (lb/hp-hr)

7.9 Unit Gasoline Dispensing Facility
Control Submerged Loading Pipe, Stages I and II

7.9.1 Description

The Permittee operates six storage tanks at the source that are used to store gasoline, ethanol/gasoline, and methanol/gasoline. Three storage tanks are at the gasoline dispensing source (Building 46): a 10,000 gallon underground gasoline tank and a 10,000 gallon underground ethanol/gasoline tank. The Argonne Service Station (Building 300) has three (10,000, 8,000, and 6,000) underground gasoline storage tanks.

7.9.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Tank #2 (Building 46)	10,000 gallon gasoline underground storage tank	Submerged filling pipe; Stage I and II vapor recovery
Tank #3 (Building 46)	10,000 gallon ethanol/gasoline underground storage tank	Submerged filling pipe; Stage I and II vapor recovery
Tank #4 (Building 300)	10,000 gallon gasoline underground storage tank	Submerged filling pipe; Stage I and II vapor recovery
Tank #5 (Building 300)	8,000 gallon gasoline underground storage tank	Submerged filling pipe; Stage I and II vapor recovery
Tank #6 (Building 300)	6,000 gallon gasoline underground storage tank	Submerged filling pipe; Stage I and II vapor recovery

7.9.3 Applicability Provisions and Applicable Regulations

a. The “affected tank” for the purpose of these unit-specific conditions, is a tank storing gasoline or a gasoline alcohol blend and used to dispense fuel to a motor vehicle. The affected tanks are identified in Condition 7.9.2.

b. Each affected tank is subject to the emission limits identified in Condition 5.2.2.

c. Each affected tank is subject to 35 IAC 218.122(b) because the capacity of each tank is greater than 250 gallons and the material stored has a vapor pressure exceeding 2.5 psia. Each tank is required to have a submerged loading pipe.

d. Each affected tank is subject to 35 IAC 218.583. These requirements are as follows. The list only includes the option the Permittee complies with and

not alternatives that are not relevant if one option is acceptable for compliance. This list also does not include past dates of notification of compliance.

i. The tank is equipped with a submerged loading pipe.

ii. The vapors displaced from the storage tank during filling are processed by a vapor control system that includes a vapor collection system in conjunction with a delivery vessel operates to meet the following requirements:

A. Prevent a reading equal to or greater than 100 percent of the lower explosive limit (LEL measured as propane) when testing in accordance with the procedure described in EPA 450/2-78-051 Appendix B.

B. Prevent avoidable leaks of liquid during the filling of storage tanks.

C. Within 15 business days after discovery of the leak by the owner operator, or the Illinois EPA, repair and retest a vapor collection system which exceeds the limits of (A) above.

D. Provide instructions to the operator of the gasoline dispensing operation describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system.

E. Repair, replace or modify any worn out or malfunctioning component or element of design.

F. Maintain and operate each vapor control system in accordance with the owner’s instructions.

G. Promptly perform any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system.

H. Maintain gauges, meters or other specified testing devices in proper working order.

e. The transfer of gasoline from an affected storage tank to a motor vehicle is a gasoline dispensing

operation subject to 35 IAC 218.586. This rule requires that no owner or operator of a gasoline dispensing operation shall cause or allow the dispensing of motor vehicle fuel at any time from a motor fuel dispenser unless the dispenser is equipped with and utilizes a vapor collection and control system which is properly installed and operated as provided below:

i. Any vapor collection and control system installed, used or maintained has been CARB certified.

ii. Any vapor collection and control system utilized is maintained in accordance with the manufacturer's specifications and the certification.

iii. No elements or components of a vapor collection and control system are modified, removed, replaced or otherwise rendered inoperative in a manner which prevents the system from performing in accordance with its certification and design specifications.

iv. A vapor collection and control system has no defective, malfunctioning or missing components.

v. Operators and employees of the gasoline dispensing operation are trained and instructed in the proper operation and maintenance of a vapor collection and control system.

vi. Instructions are posted in a conspicuous and visible place within the motor fuel dispensing area and described the proper method of dispensing motor vehicle fuel with the use of the vapor collection and control system.

7.9.4 Non-Applicability of Regulations of Concern

This permit is issued based on the affected storage tanks not being subject to the New Source Performance Standards (NSPS) for storage tanks, 40 CFR Part 60, Subpart Kb, because the affected tanks have a smaller capacity than tanks subject to Kb even if constructed after the applicable date.

7.9.5 Control Requirements

Each affected tank shall be equipped and operated with a submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA, pursuant to 35 IAC

218.122(b) and/or 128.583(a). (The Illinois EPA has not approved use of other equivalent equipment in lieu of a submerged loading pipe or submerged loading fill.)

7.9.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected tanks are subject to the following:

VOM emissions shall not exceed 0.44 tons/year from each tank in Building 46. Construction Permits 86020043 and 90030016.

VOM emissions shall not exceed 0.44 tons/year from each tank in Building 300. Construction Permit 90120031.

7.9.7 Operating Requirements

None

7.9.8 Inspection Requirements

None

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Conditions 5.5.1 and 7.9.3, pursuant to Section 39.5(7)(b) of the Act:

a. Gasoline throughput (gal/mo);

b. Maintenance and repair of Stage I and Stage II vapor recovery systems; and

c. VOM emissions (lb/mo).

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Compliance with Condition 7.9.3.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.9.12 Compliance Procedures

The gasoline dispensing source is assumed to be in compliance if Stage I and Stage II systems are operating properly.

8.0 General Permit Conditions

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after February 14, 2001 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change;

ii. Identify the schedule for implementing the physical or operational change;

iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows unless superseded by a more or less frequent schedule in Section 7 of this permit [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

The only two monitoring reports required by this CAAPP permit have special reporting periods. Boiler #5 requires quarterly reports and the NESHAP for radionuclides only requires an annual report.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

a. The name and identification of the affected unit(s);

b. The person(s) who will be performing sampling and analysis and their experience with similar tests;

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

a. The name and identification of the affected unit(s);

b. The date and time of the sampling or measurements;

c. The date any analyses were performed;

d. The name of the company that performed the tests and/or analyses;

e. The test and analytical methodologies used;

f. The results of the tests including raw data, and/or analyses including sample calculations;

g. The operating conditions at the time of the sampling or measurements; and

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 (“Title I provisions”) and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

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

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any

loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment as specified in the unit specific sections of this permit. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities. Maintenance records are not required for control equipment on units for which the pre-control emission rate classifies the units as insignificant emission units.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the 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 [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA 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 Illinois EPA 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 USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements

underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

DGP:jar

10.2 Attachment 2 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;

2. Minor Permit Modification; and

3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment

- Corrects typographical errors;
- Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- Requires more frequent monitoring or reporting by the Permittee;
- Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Illinois EPA;
- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
- Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.

2. Minor Permit Modification

- Do not violate any applicable requirement;

- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;

- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

    - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and

    - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.

- Are not modifications under any provision of Title I of the CAA; and

- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- The source’s suggested draft permit/conditions;

- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;

- Applications requesting a significant change in existing monitoring permit terms or conditions;

- Applications requesting a relaxation of reporting or recordkeeping requirements; and

- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or

- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or

- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.

Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	I.D. number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information

1. Source name:		
2. Source street address:		
3. City:		4. Zip code:
5. Is the source located within city limits?		☐ Yes ☐ No
6. Township name:	7. County:	8. I.D. number:

Owner Information

9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)

14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information

19. Who is the applicant? ☐ Owner ☐ Operator	20. All correspondence to: (check one) ☐ Owner ☐ Operator ☐ Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents		
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	☐ Yes ☐ No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	☐ Yes ☐ No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	☐ Yes ☐ No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	☐ Yes ☐ No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	☐ Yes ☐ No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	☐ Yes ☐ No ☐ Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
	This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.
30.	I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature: BY: _____ AUTHORIZED SIGNATURE _____ TITLE OF SIGNATORY _____ TYPED OR PRINTED NAME OF SIGNATORY _____ / _____ / _____ DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.