RESPONSE TO COMMENTS

AEROJET ROCKETDYNE, INC.
PERMIT #0617-AOP-R12
AFIN: 07-00035

On May29, 2015, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted Torii Wehling on behalf of the facility. The Department's response to these issues follows.

Comment 1: The new natural gas-fired process boiler SN-96 should be added to the table of contents page 2.

Response: The Department agrees. The requested change was made.

Comment 2: The new boiler SN-96 should be added to the list of emission sources included in the source group on page 41.

Response: The Department agrees. The requested change was made.

Comment 3: The description of the boilers should be revised to indicate that SN-96 is regulated as a new source under the MACT Subpart DDDDD.

Response: The Department agrees. The requested change was made.

Comment 4: Correct the emission rates to the values in the application in Specific Condition 1.

Response: The Department agrees. The requested change was made.

Comment 5: Correct the emission rates to the values in the application in Specific Condition 2.

Response: The HAP emission rate was not changed from 0.1 to 0.01 as requested. The requested change was below the rates in the application. The HAP emission rates provided in the application stated 0.03 tpy of hexane alone.

Comment 6: Correct a typographical error in Specific Condition 4 ("sources" not "source").

Response: The Department agrees. The requested change was made.

Comment 7: Remove SN-96 from the requirements in Specific Condition 5 as it is a new boiler and the requirement is not applicable.

Response: The Department agrees. The requested change was made.

ADEQ

A R K A N S A S
Department of Environmental Quality

August 3, 2015

Torii Wehling
Environmental Operations Manager
Aerojet Rocketdyne, Inc.
P.O. Box 1036
Camden, AR 71711-1036

Dear Ms. Wehling:

The enclosed Permit No. 0617-AOP-R12 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 2/24/2015.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 0617-AOP-R12 for the construction and operation of equipment at Aerojet Rocketdyne, Inc. shall be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

Stuart Spencer
Chief, Air Division

Enclosure: Final Permit

ADEQ
OPERATING
AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 0617-AOP-R12

IS ISSUED TO:

Aerojet Rocketdyne, Inc.
East Walton Road, (Highway 274) Highland Industrial Park
East Camden, AR 71701
Calhoun County
AFIN: 07-00035

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

April 8, 2015 AND April 7, 2020

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Stuart Spencer
Chief, Air Division

August 3, 2015
Date

Aerojet Rocketdyne, Inc.
Permit #: 0617-AOP-R12
AFIN: 07-00035

Table of Contents

List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
PM	Particulate Matter
PM_{10}	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: FACILITY INFORMATION

PERMITTEE:	Aerojet Rocketdyne, Inc.
AFIN:	07-00035
PERMIT NUMBER:	0617-AOP-R12
FACILITY ADDRESS:	East Walton Road, (Highway 274) Highland Industrial Park East Camden, AR 71701
MAILING ADDRESS:	P.O. Box 1036 Camden, AR 71711-1036
COUNTY:	Calhoun County
CONTACT NAME:	Torii Wehling
CONTACT POSITION:	Environmental Operations Manager
TELEPHONE NUMBER:	(870) 574-3265
REVIEWING ENGINEER:	Shawn Hutchings
UTM North South (Y):	Zone 15: 3721136.22 m
UTM East West (X):	Zone 15: 528500.00 m

SECTION II: INTRODUCTION

Summary of Permit Activity

Aerojet Rocketdyne, Inc., currently operates a manufacturing facility located in the Highland Industrial Park near East Camden, Arkansas. This modification adds a natural gas fired boiler, SN-96.

Process Description

DESCRIPTION OF GENERIC ROCKET MOTOR PRODUCTION PROGRAM

Aerojet Rocketdyne manufactures a number of solid rocket motors for the U.S. Department of Defense (DoD) and other military contractors. These production programs include the following:

- MK-104 Ballistic Missile Defense System
- Army Tactical Missile System (ATACMS)
- Multiple Launch Rocket System (MLRS)
- Patriot (PAC-2) Air Defense Missile System
- Patriot (PAC-3) Air Defense Missile System
- Tactical Tomahawk Cruise Missile System
- Sidewinder Air-To-Air Missile System
- Javelin Air Defense Missile System
- Stinger Portable Air Defense System
- Supersonic Sea-Skimming Target (SSST) Missile System

A generic description of the manufacturing operations for a typical rocket motor program is provided below.

Motor Case Preparation

Production of a typical rocket motor commences with the receipt of pre-manufactured metal motor cases from a vendor. Each case is subsequently cleaned to remove residual oil and grease. Cleaning is performed using one of two degreaser units: the motor case cleaner (vapor degreaser) at Building 2-SH-14 (SN-19) or the aqueous degreaser at Building 2-SH-2 (no SN). As an alternative, the motor case may be manually cleaned. The hand-wipe cleaning activities (SN-37) are conducted at Buildings 2-SH-2 and 2-SH-14.

After cleaning, the rocket motor case is grit blasted at Building 2-SH-2 or 2-SH-14. This operation prepares the interior surface of the metal case for coating. Sand, coal slag, steel grit, and other materials are used as the abrasive media. The particulate emissions from the grit blast machines (SN-67) are controlled using various devices (cyclones, baghouses, shop vacuums, etc.).

After grit blasting, the case is degreased a second time. Cleaning is again performed using the motor case cleaner (SN-19) at Building 2-SH-14 or the aqueous degreaser at Building 2-SH-2. As an alternative, the case may be hand-wipe cleaned (SN-38) at either location.

Once clean, the rocket motor case is transported to Building M-2. At this time, the case is physically inspected for defects using a "Magnaflux" machine. This equipment is a specially-designed black-light fluoroscope (SN-68). It is used to examine metal components for hairline cracks and other flaws.

After inspection, the rocket motor case is transferred to Building 2-SH-14, 2-SH-15, or M-8 (or remains at M-2) for adhesive application. First, an adhesive primer is applied to the interior surface of the case (SN-39 and SN-76). The coating is applied within enclosed production bays. Depending on the program, the adhesive primer is manually applied using paintbrushes (SN-39) at Buildings 2-SH-14 and 2-SH-15. The facility also operates adhesive spray machines at Buildings M-2 and M-8. Each automated unit consists of a spray nozzle mounted on a traveling wand. During application of the adhesive primer (SN -7 6), the wand is slowly drawn through the motor case to provide a uniform coating. Afterwards, the case is either allowed to air dry at ambient temperature or is cured in a steam-heated oven (no SN).

Next, the motor case is coated with an adhesive. Depending on the production program, the coating is manually applied (SN-40) at Buildings 2-SH-14 and 2-SH-15 or is applied using the spray machines (SN-77) at Buildings M-2 and M-8. The motor case is then allowed to air dry or is cured in an oven.

Rubber insulators are fabricated concurrent with preparation of a typical rocket motor case. This production operation is conducted at Buildings 2-SH-14 and M-2. The "case rubber" for the rocket motor is made by "laying up" (wrapping) rubber sheeting around a metal forming tool (a mandrel). The unit is then cured in an oven. The finished rubber piece has a cylindrical shape.

After fabrication, the insulator component is degreased with a solvent. The hand-wipe cleaning operations are performed within enclosed rooms at Building 2-SH-14 (SN-20), Building 2-SH-15 (SN-20), or Building M-2 (SN-74).

After cleaning, the case rubber is installed within the prepared motor case. Tooling is then attached to the case assembly ("tool-up" process). The motor case is subsequently subjected to a series of mechanical and physical tests for quality control purposes. After testing, the entire insulated case assembly is cured within an oven. The tooling is then removed from the motor case ("de-tooling" process). The insulated motor case is subsequently wiped down with a solvent (SN-20 and SN-74).

After degreasing, the rocket motor case is returned to the oven for an extended period of curing (several days). Next, the case is again hand-wipe cleaned (SN-20 and SN-74). An adhesive barrier coating is subsequently applied to the interior surface of the insulated motor case. The coating is manually applied using paintbrushes (SN-41) at Buildings 2-SH-l4 and 2-SH-l5, or is applied using the spray machines (SN-78) at Buildings M-2 and M-8. The case is then cured

again in an oven (IE). The prepared rocket motor case is subsequently lined with a polyurethane coating.

Lining of Prepared Motor Case

Once prepared, the interior of the typical rocket motor case is lined with a specially formulated polyurethane coating. The liner compounds are prepared for use in the mixer units at Building M-8 (SN-07), Building 2-SH-l5 (SN-22), and Building M-2 (SN-28). (The liner mixtures are composed of a polymer, curing agent, bonding agent, and a filler. These materials are not volatile. The coatings are prepared within closed mixer units. As a result, the mixing operations themselves are insignificant sources of air emissions. However, various solvents are used to clean the liner mixers.)

The prepared liner material is first applied by hand to the dome areas of the rocket motor case. The case is then cured in an oven. The remaining interior sections of the cylindrical case are then coated with the liner material. Application is performed using several "sling liner" machines. Each automated unit consists of a rotating applicator head mounted on a traveling wand. During liner application, the wand is slowly drawn through the motor case to provide a uniform coating. The spinning head slings the liner onto the inside of the case. The lined rocket motor case is then cured in an oven. The facility operates sling liner machines at Building 2-SH-15 (SN-52), Building M-8 (SN-52), and Building M-2 (SN-75).

Depending on the production program, the liner material may also be applied using a "spray liner machine." Each automated unit consists of a spray nozzle mounted on a traveling wand. During application of the liner, the wand is slowly drawn through the motor case to provide a uniform coating. The lined rocket motor case is then cured in an oven. The facility operates spray liner machines at Building M-8 (SN-07), Building M-2 (SN-28), and Building 2-SH-15 (SN-42).

The lined rocket motor case is now ready for loading with solid propellant ("casting" process).

Fabrication of Nozzle Assembly

The "nozzle assembly" for the typical rocket motor is fabricated in a separate series of operations. This component is made of a composite carbon/phenolic resin material plus pre-manufactured metal and plastic hardware. First, sections of carbon-impregnated phenolic resin tape are die cut to the desired sizes and shapes. The cut patterns are then assembled and press molded to form a rigid plastic nozzle. The press machines at Buildings 2-SH-3 or 2-SH-14 (both SN-48) are utilized. After molding, the nozzle unit is machined to attain the proper dimensions. The metalworking lathes (IE) at Building 2-SH-3 (SN-66) are used for this operation.

The nozzle unit is then assembled at Building 2-SH-14 or Building M-2 (or elsewhere). The metal and plastic components are manually glued together using small quantities of epoxy and/or urethane adhesives. The nozzle unit is subsequently wiped down with a solvent. The hand-wipe cleaning operations are performed at Building 2-SH-14 (SN-20) or Building M-2 (SN-74). The

entire nozzle assembly is then transported to Building 33 or Building 48 for installation on the motor case.

Fabrication of Igniter Assembly

Launch of a typical rocket motor is initiated using an electrically-fired igniter. Fabrication of the igniter assembly is performed as follows: First, the pre-manufactured metal igniter cup is etched with acid. This bench-top operation is conducted in the Chemistry Lab at Building B-17. Concurrently, the pre-manufactured plastic igniter components are cut to size, hand-wiped with solvent and glued together. The plastic parts are then combined with the etched metal cup to form the igniter assembly. These production operations are performed at Building M-85. The fugitive air emissions from the small-scale cleaning and gluing activities are accounted for in the facility-wide "floor operations" (SN-44).

After assembly, a small charge of propellant is placed within the igniter. The loaded component is then sealed. The finished igniter unit is subsequently shipped to Building 33 or Building 48 for installation within the motor case.

Casting, Curing and Assembly of Finished Rocket Motor

As stated above, the interior of the clean rocket motor case is coated with a primer and an adhesive. A "case rubber" insulator is then installed within the unit. Following an extended oven-curing period, an adhesive barrier coating is applied to the rubber insulator. The interior of the case is then lined with a polyurethane material. After curing, the lined motor case is ready for propellant "casting."

An integral component of the facility's manufacturing activities is the formulation of solid rocket propellants that perform to exacting specifications. In general, propellant production involves the combining of various dry energetic materials (premix, oxidizer, and fuel), plus liquid polymers and plasticizers/curing agents, within a mechanical mixer. The ingredients are then consolidated into a uniform propellant formulation. Mixer units are operated at multiple locations throughout the East Camden complex. (All of the dry and liquid ingredients are handled in a controlled manner. The liquid polymers and curing agents are not volatile. No significant air emissions are generated during the mixing operations.)

Once formulated, the rocket fuel is "cast" (loaded) within the prepared rocket motor case. During this operation, the lined case is filled with the propellant/polymer/plasticizer mixture while under vacuum. The fuel mixture is then allowed to cure within the motor case. (The casting and curing activities are insignificant sources of air emissions.)

A number of propellant casting and curing stations are operated throughout the facility. Upon receipt at a particular building, the case is "tooled-up" and positioned at the casting station. Preparation of the case may include insertion of a metal mandrel. Use of the forming tool creates a hollow core within the cast propellant. The motor case is then filled with the fuel mixture.

After casting, the case is loaded into a steam-heated or electric oven. The propellant is then cured under controlled temperature conditions.

Once cured, the motor case is removed from the oven and allowed to cool. The mandrel is then withdrawn from the cast motor case ("core pull" operation). Next, any propellant residue on the exterior of the case is manually removed for later disposal ("cut back" operation). Finally, the tooling is removed from the motor case.

At this time, the cast and cured rocket motor case is transported to Building 33 or Building 48 for final assembly. First, a primer coat of paint is applied to the exterior of the motor case. The unit is then allowed to air dry. As an alternative, the case may be cured in a steam-heated oven. The facility operates spray paint booths at Building 33 (SN-3) and Building 48 (SN-24). The coatings are applied using air-assisted paint guns. The paint booths are equipped with high-density mesh filters for the control of over-spray. Small-scale painting activities are also conducted at Building 60 (SN-12) and Building M-85 (SN-83).

Afterwards, a topcoat of paint is applied to the rocket motor case within one of the spray booths (SN-24 or SN-43). The unit is then allowed to air dry or is cured in an oven.

The nozzle assembly and igniter are now installed on the motor case. The entire unit is then leak tested for quality control purposes. An inert gas (nitrogen, helium, or argon) is utilized.

After leak testing, the rocket motor case is transported to Building 46. The motor is then x-rayed to check for defects. Other quality control testing is also performed at this time.

The finished rocket motor is then labeled and packaged. These operations are performed at Building 33 or Building 48. The fugitive air emissions from the labeling activities are part of the floor operations (SN-44).

The rocket motors are then stored pending shipment off-site. Other DoD contractors perform the final assembly of most of the rocket motors made.

PROPELLANT TESTING AND TREATMENT UNITS

Aerojet Rocketdyne tests rocket and air bag propellant formulations at the East Camden facility. Waste energetic materials are treated on-site. These operations are discussed below:

Rocket Test Facility (RTF)

Rocket motors, air bag initiators, and other energetic devices are test fired for quality control and R&D purposes. These activities are performed at multiple locations throughout the East Camden complex. The rocket test sites include Bays 15, 18, and 45. Air bag propellants are tested at Buildings 16, M-85, and M-125. The RTF (SN-03) encompasses all of these locations.

To prepare for a test event, the rocket motor assembly is fitted with instrumentation and then temperature-conditioned. Once conditioning is complete, the motor is secured to a specially designed test stand. The rocket is then fired from a remote control building. Various test data are recorded during the event. After a cool-down period, the spent motor case is disassembled and evaluated. The test bays and apparatus are not equipped with air pollution control devices.

Air bag igniters, inflators, and other small energetic devices are also test fired for production and R&D purposes. A particular component is assembled, temperature-conditioned, secured to special test equipment, and then fired. Various test data are recorded during the event. The hardware is then disassembled and evaluated. The testing units are not equipped with air pollution control devices.

Thermal Treatment Facility (TTF)

Waste rocket and air bag propellants and propellant-contaminated materials are generated during the facility's manufacturing operations. These waste streams are destroyed via open burning in the TTF. It is a permitted hazardous waste treatment unit.

To prepare for a thermal treatment event, the waste materials are transported from temporary storage areas to the TTF. The wastes are then placed in the burn pans, burn cages, rocket firing fixture, and/or miscellaneous treatment devices. Once preparations are complete, the materials are ignited using an electric current. Ignition is initiated from the remote control building. The wastes are then allowed to burn until combustion has been completed. After the event, the treatment devices are allowed to cool for 24 hours. The items are then prepared for reuse. The treatment units are not equipped with air pollution control devices.

High Explosives Test Facility (EXTEF)

This site is used to support the manufacturing operations at the East Camden complex. Ordnance, explosives, and other energetic materials are tested at the EXTEF (SN-30) for quality control and R&D purposes. The items that are test-fired range from finished automobile air bag systems to various military ordnance to specially-prepared experimental propellant formulations. The tests are conducted under a variety of physical conditions. Denotation or ignition of a particular component may be initiated by dropping the item onto a hard surface, by the impact of a bullet, by a blasting cap-initiated high-explosive donor charge, or by a controlled bonfire. The test events are initiated and monitored from a control building. Various test data are recorded during each detonation event for subsequent evaluation. The test-firing area and apparatus are not equipped with air pollution control devices.

The EXTEF is located within the 16-A T Area of the Highland Industrial Park. It is situated approximately ten miles away from the main manufacturing complex.

MISCELLANEOUS MANUFACTURING OPERATIONS AND EQUIPMENT

Aerojet Rocketdyne operates several miscellaneous production units at the East Camden facility. The most significant of these items are discussed below:

Lacquer Preparation Operations

"Lacquer" is the facility's generic term for various liquid explosive compounds. These products are processed at Building 56. There are two general categories of operations involving lacquer: (1) the preparation of premixed lacquer solutions for use in propellant production and (2) the stabilization of lacquer premix for shipping and/or long-term storage.

When purchased from vendors, the lacquer products are premixed with a solvent, usually methylene chloride or isopropyl alcohol. The solvent acts as a stabilizing agent during transportation. To prepare the lacquer for subsequent use, the solvent is removed by sparging with nitrogen gas. The lacquer is then transferred to the mixing area for processing. All stripping of lacquer premix (SN-11) is performed at Building 56. The sparging operation is a batch process.

The second category of lacquer preparation involves the addition of stabilizing materials to liquid explosives prior to their use, shipment, and/or long-term storage. The stabilization process (SN-11) is also performed at Building 56. The solvents and explosives are combined in a mixing vessel. The resultant lacquer premix is then packaged for use, transportation or storage.

Explosives Dryer

The facility uses various energetic materials ("nitramine" compounds) and explosives in its production operations. When purchased from vendors, these products are wetted with isopropyl alcohol. The solvent acts as a stabilizing agent for safety purposes.

Prior to use, the energetic materials are processed in a rotary vacuum dryer (SN-63). This unit is located at Building 57. The dryer operates as follows: The explosive compounds are received in plastic bags. The containers are manually opened, and the materials are placed in the rotary drum dryer. The building is secured once the unit is loaded. The dryer is then heated using a hot-water jacket, while a vacuum pump simultaneously exhausts the dryer chamber. During operation, the chamber is periodically rotated to ensure thorough drying of its contents. Once dry, the energetic materials are ready for further processing. The vacuum pump is equipped with a chiller system, which condenses the solvent in the off-gas stream.

Explosives Grinder

After drying, the nitramine compounds and explosives are milled to the proper particle size. A specialized grinder unit (SN-73) is operated at Building 58 for this purpose. Once prepared, the ground energetic materials are used in the production of rocket propellants and related compounds. The nitramines and explosives grinder is equipped with two baghouses for the control of dust emissions.

Rocket Motor Case Reclamation Facility

Certain rocket motors cannot be fired due to damage or the age of the units. The propellants are removed from these products so that the metal motor cases can be reclaimed. First, the bulk propellant is mechanically removed using an electric-powered lathe ("hogout" operation). The remaining propellant is then extracted using a high-pressure spray of water ("washout operation"). A 300 horsepower diesel-fired internal combustion engine (SN-81) is used to power the water pump for the "hydro-lance machine."

Warhead Manufacturing Operations

The facility makes a variety of warheads and other ordnance (SN-84) at Building M-11. The production activities include two coating operations. An asphalt or wax compound is applied to the inside of certain warhead units. The "stress-relaxing liner" prevents the explosive charge inside the case from cracking as the material cools after installation.

Two "melter/applicator machines" are operated for this purpose. The hot liner material is applied to the warhead cases using a hand-held wand. The asphalt or wax coating hardens as the components cool. The lined warhead cases are subsequently filled with an explosive.

SOURCES OF AIR EMISSIONS

The two largest individual sources of air emissions at the East Camden plant are utilized for the testing and disposal of rocket propellants and other energetic materials. These units are the Rocket Test Facility (SN-03) and the Thermal Treatment Facility (SN-04/04R).

The facility's manufacturing operations and associated plant activities also represent a number of air emission sources at the East Camden facility. These operations include the following: multiple parts cleaning activities involving solvents; a variety of surface coating operations; parts assembly using specialty adhesives; the production of rocket and air bag propellants, explosives, and other energetic materials; the operation of natural gas-fired combustion equipment; R&D activities; and a number of miscellaneous production operations.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective September 13, 2014
40 C.F.R 63 Subpart GG - *National Emission Standards for Aerospace Manufacturing and Rework Facilities*

40 C.F.R 63 Subpart ZZZZ - *National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines*
40 C.F.R Part 60 Subpart JJJJ - *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.*
40 C.F.R Part 63 Subpart DDDDD - *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	15558.3	205.6
		PM_{10}	15558.3	205.6
		SO_2	5.3	6.0
		VOC	1396.4	150.5
		CO	10844.1	94.8
		NO_X	392.4	89.6
		Lead	266.41	6.71
HAPs		Acetaldehyde	0.1	0.1
		Acrolein	0.1	0.1
		Benzene	2.7	0.2
		1,2 Butylene Oxide	4.04	1.4
		1,3 Butadiene	0.1	0.1
		Cadmium	2.4	0.08
		Chlorine	202.32	7.83
		Chromium	12.6	0.11
		Cumene	4.1	1.5
		Diethylene Glycol Monobutyl Ether Acetate	7.2	1.5
		Diethylene Glycol Monoethyl Ether Acetate	14.4	2.9
		Ethyl Acrylate	11.8	4.3
		Ethyl Benzene	34.14	8.04
		Formaldehyde	0.91	0.48
		Hydrogen Chloride	10334.7	145.4
		Hydrogen Fluoride	36.4	0.8
		Methanol	54.2	17.38
		Methylene Chloride	101.5	24.6
		Methyl Isobutyl Ketone	120.2	31.6
		PAH	0.1	0.1
		Phenol	16.58	3.58

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Tetrachloroethylene	10.8	2.25
		Toluene	135.8	40.14
		1,1,1 Trichloroethane	138.5	34.91
		Trichloroethylene	27.6	5.76
		Xylene	130.8	32.68
Air Contaminants **		Ammonia	0.03	0.04
		HAPs	0.55	0.55
		HFC-245fa	0.7	2.50
02A	Boiler #1 Building M-2 3.352 MMBTU/hr	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.3
		NO_X	0.4	1.5
		HAPs	0.01	0.01
02B	Boiler #2 Building M-2 3.352 MMBTU/hr	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.3
		NO_X	0.4	1.5
		HAPs	0.01	0.01
02C	Boiler #4R Building M-2 4.185 MMBTU/hr	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.4	1.6
		NO_X	0.5	1.9
		HAPs	0.01	0.01
02D	Boiler #6 Building M-8 2.1 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.8
		NO_X	0.3	1.0
		HAPs	0.01	0.01
02E	Boiler #7 Building M-8 2.1 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		CO	0.2	0.8
		NO_X	0.3	1.0
		HAPs	0.01	0.01
02F	Boiler #8 Building M-8 4.185 MMBTU/hr	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.4	1.6
		NO_X	0.5	1.9
		HAPs	0.01	0.01
02G	Boiler #9 Building M-2 4.185 MMBTU/hr	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.4	1.6
		NO_X	0.5	1.9
		HAPs	0.01	0.01
03A-F	Rocket Test Facility	PM		48.7
		PM_{10}		48.7
		VOC		2.5
		CO		44.5
		NO_X		0.5
		Lead	-	1.5
		Cadmium		0.01
		Chlorine		0.3
		Chromium		0.11
		Hydrogen Chloride		35.1
		Hydrogen Fluoride		0.1
03A	Rocket Test Facility Bay 15	PM	1,900.0	
		PM_{10}	1,900.0	
		VOC	100.0	
		CO	1,765.5	
		NO_X	16.5	
		Lead	58.8	
		Cadmium	0.46	
		Chlorine	12.0	
		Chromium	4.2	
		Hydrogen Chloride	1,400.0	
		Hydrogen Fluoride	4.1	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
03B	Rocket Test Facility	PM	1,900.0	
		PM_{10}	1,900.0	
		VOC	100.0	
		CO	1,765.5	
		NO_X	16.5	
		Lead	58.8	
		Cadmium	0.46	
		Chlorine	12.0	
		Chromium	4.2	
		Hydrogen Chloride	1,400.0	
		Hydrogen Fluoride	4.1	
03C	Rocket Test Facility	PM	7,600.0	
		PM_{10}	7,600.0	
		VOC	400.0	
		CO	7,062.0	
		NO_X	66.0	
		Lead	58.8	
		Cadmium	0.46	
		Chlorine	48.0	
		Chromium	4.2	
		Hydrogen Chloride	5,600.0	
		Hydrogen Fluoride	16.2	
03D	Rocket Test Facility	PM	45.7	
		PM_{10}	45.7	
		CO	14.7	
		NO_X	0.1	
		Hydrogen Chloride	1.6	
03E	Rocket Test Facility	PM	45.7	
		PM_{10}	45.7	
		CO	14.7	
		NO_X	0.1	
		Hydrogen Chloride	1.6	
03F	Rocket Test Facility	PM	45.7	
		PM_{10}	45.7	
		CO	14.7	
		NO_X	0.1	
		Hydrogen Chloride	1.6	
04	Thermal Treatment Facility	PM	3,874.4	143.2
		PM_{10}	3,874.4	143.2
		VOC	160.0	9.3

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		CO	40.0	2.4
		NO_X	236.0	13.7
		Lead	84.0	4.9
		Cadmium	0.97	0.06
		Chlorine	129.6	7.5
		Chromium, Trivalent	7.9	0.45
		Chromium, Hexavalent	0.13	0.01
		Hydrogen Chloride	1,840.8	106.5
		Hydrogen Fluoride	12.0	0.7
07	Liner Mixer and Spray Liner Machine	VOC	17.0	2.2
11	Lacquer Preparation	VOC	40.1	5.1
		Acetone	40.1	5.1
		Methylene Chloride	40.1	5.1
12	Spray Painting Area	PM	0.1	0.1
		PM_{10}	0.1	0.1
		VOC	15.5	2.6
		Lead	0.01	0.01
		Acetone	9.4	1.4
		Cumene	0.4	0.1
		Ethyl Acrylate	1.1	0.3
		Ethyl Benzene	0.7	0.2
		Methanol	1.4	0.4
		Methyl Isobutyl Ketone	4.2	1.1
		Toluene	6.0	1.5
		Xylene	4.2	1.1
13	Ultrasonic Cleaner	VOC	0.2	0.3
		1,2 Butylene Oxide	0.01	0.01
19	Motor Case Cleaner	VOC	6.6	13.8
		1,2 Butylene Oxide	0.07	0.14
20A	Solvent Wipe Room Building 2-SH-14	VOC	8.5	2.2
20B	Solvent Wipe Room Building 2-SH-15	VOC	8.5	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
22	Mix Room	VOC	8.5	4.3
24	Spray Paint Booth	PM	0.1	0.1
		PM_{10}	0.1	0.1
		VOC	53.5	7.6
		Lead	0.01	0.01
		Acetone	11.2	2.1
		Chromium Compounds	0.01	0.01
		Cumene	1.4	0.3
		Ethyl Acrylate	4.2	0.8
		Ethyl Benzene	2.8	0.6
		Methanol	5.6	1.1
		Methyl Isobutyl Ketone	16.8	3.2
		Toluene	23.8	4.5
		Xylene	16.8	3.2
SN-25A	Natural Gas Fired Boiler Unit #1 Building #47 2.35 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.9
		NO_X	0.3	1.1
		HAPs	0.01	0.01
SN-25B	Natural Gas Fired Boiler Unit #2 Building #48 0.75 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.1	0.4
		NO_X	0.1	0.4
		HAPs	0.01	0.01
SN-25C	Natural Gas Fired Boiler Unit #3 Building #48 2.0 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.8
		NO_X	0.2	0.9
		HAPs	0.01	0.01
SN-25D	Natural Gas Fired Boiler Unit #4 Building #66	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	1.15 MMBTU/hr	CO NO_X HAPS	0.1 0.2 0.01	0.5 0.6 0.01
SN-25E	Natural Gas Fired Boiler Unit #5 Building M-85 2.0 MMBTU/hr	PM PM_{10} SO_2 VOC CO NO_X HAPs	0.1 0.1 0.1 0.1 0.2 0.2 0.01	0.1 0.1 0.1 0.1 0.8 0.9 0.01
SN-25F	Natural Gas Fired Boiler Unit #6 Building M-85 2.0 MMBTU/hr	PM PM_{10} SO_2 VOC CO NO_X HAPs	0.1 0.1 0.1 0.1 0.2 0.2 0.01	0.1 0.1 0.1 0.1 0.8 0.9 0.01
28	Spray Liner Machine and Mixer Unit	VOC	17.0	2.2
30	High Explosives Test Facility	PM PM_{10} VOC CO NO_X Lead Cadmium Chlorine Chromium, Trivalent Hydrogen Chloride	137.0 137.0 6.0 106.0 1.0 5.88 0.05 0.72 0.42 89.1	5.5 5.5 0.3 4.3 0.1 0.24 0.01 0.03 0.02 3.8
36	Vapor Degreaser	VOC 1,2 Butylene Oxide	1.1 0.02	8.3 0.09
37A	Motor Case Cleaning (Prior to Grit Blasting) Building 2-SH-2	VOC	4.3	1.5
37B	Motor Case Cleaning	VOC	4.3	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	(Prior to Grit Blasting) Building 2-SH-14			
38A	Motor Case Cleaning (After Grit Blasting) Building 2-SH-2	VOC	4.3	1.5
38B	Motor Case Cleaning (After Grit Blasting) Building 2-SH-14	VOC	4.3	
39A	Adhesive Primer Operations Building 2-SH-14	VOC 1, 2–Butylene Oxide Ethyl Benzene Formaldehyde Methanol Methyl Isobutyl Ketone Tetrachloroethylene Toluene 1,1,1 Trichloroethane Trichloroethylene Xylene	10.0 0.29 1.44 0.03 1.2 3.8 0.9 1.5 3.2 2.3 4.9	3.0 0.12 0.58 0.02 0.46 1.5 0.35 0.58 1.27 0.92 1.96
39B	Adhesive Primer Operations Building 2-SH-15	VOC 1, 2–Butylene Oxide Ethyl Benzene Formaldehyde Methanol Methyl Isobutyl Ketone Tetrachloroethylene Toluene 1,1,1 Trichloroethane Trichloroethylene Xylene	10.0 0.29 1.44 0.03 1.2 3.8 0.9 1.5 3.2 2.3 4.9	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
40A	Adhesive Operations Building 2-SH-14	VOC	10.0	3.0
		1, 2–Butylene Oxide	0.29	0.12
		Ethyl Benzene	1.44	0.58
		Formaldehyde	0.03	0.02
		Methanol	1.2	0.46
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.35
		Toluene	1.5	0.58
		1,1,1 Trichloroethane	3.2	1.27
		Trichloroethylene	2.3	0.92
		Xylene	4.9	1.96
40B	Adhesive Operations Building 2-SH-15	VOC	10.0	
		1, 2–Butylene Oxide	0.29	
		Ethyl Benzene	1.44	
		Formaldehyde	0.03	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	
41A	Adhesive Barrier Coating Operations Building 2-SH-14	VOC	10.0	3.0
		1, 2–Butylene Oxide	0.29	0.12
		Ethyl Benzene	1.44	0.58
		Formaldehyde	0.03	0.02
		Methanol	1.2	0.46
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.35
		Toluene	1.5	0.58
		1,1,1 Trichloroethane	3.2	1.27
		Trichloroethylene	2.3	0.92
		Xylene	4.9	1.96
41B	Adhesive Barrier Coating Operations Building 2-SH-15	VOC	10.0	
		1, 2–Butylene Oxide	0.29	
		Ethyl Benzene	1.44	
		Formaldehyde	0.03	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	
42	Spray Liner Machine	VOC	8.5	1.1
43	Spray Paint Booth	PM	0.1	0.1
		PM_{10}	0.1	0.1
		VOC	22.5	8.5
		Lead	0.01	0.01
		Acetone	5.6	2.8
		Chromium Compounds	0.01	0.01
		Cumene	0.7	0.4
		Ethyl Acrylate	2.1	1.1
		Ethyl Benzene	1.4	0.7
		Methanol	2.8	1.4
		Methyl Isobutyl Ketone	8.4	4.2
		Toluene	11.9	6.0
		Xylene	8.4	4.2
44A-D	Floor Operations	PM	-	0.1
		PM_{10}		0.1
		VOC		39.3
		Lead		0.01
		Acetone		17.2
		1,2 Butylene Oxide		0.2
		Chromium Compounds		0.02
		Cumene		0.7
		DGMbEA		1.5
		DGMeEA		2.9
		Ethyl Acrylate		2.1
		Ethyl Benzene		2.9
		Glycol Ethers		6.4
		Methanol		11.6
		Methylene Chloride		16.7
		Methyl Isobutyl Ketone		14.1
		Phenol		3.3
		Toluene		24.2
		1,1,1 Trichloroethane		24.4
		Xylene		12.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
44A	Floor Operations	PM	0.1	
		PM_{10}	0.1	
		VOC	30.3	
		Lead	0.01	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate		
		Diethylene Glycol Monoethyl Ether Acetate	1.8	
		Ethyl Acrylate		
		Ethyl Benzene	3.6	
		Glycol Ethers	1.1	
		Methanol	2.5	
		Methylene Chloride	8.0	
		Methyl Isobutyl Ketone	7.5	
		Phenol	12.6	
		Toluene	11.3	
		1,1,1 Trichloroethane	4.1	
		Xylene	15.8	
			22.3	
			8.7	
44B	Floor Operations	PM	0.1	
		PM_{10}	0.1	
		VOC	30.3	
		Lead	0.01	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate		
		Diethylene Glycol Monoethyl Ether Acetate	1.8	
		Ethyl Acrylate		
		Ethyl Benzene	3.6	
		Glycol Ethers	1.1	
		Methanol	2.5	
		Methylene Chloride	8.0	
		Methyl Isobutyl Ketone	7.5	
		Phenol	12.6	
		Toluene	11.3	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		1,1,1 Trichloroethane	4.1	
		Xylene	15.8	
			22.3	
			8.7	
44C	Floor Operations	PM	0.1	
		PM_{10}	0.1	
		VOC	30.3	
		Lead	0.01	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate		
		Diethylene Glycol Monoethyl Ether Acetate	1.8	
		Ethyl Acrylate		
		Ethyl Benzene	3.6	
		Glycol Ethers	1.1	
		Methanol	2.5	
		Methylene Chloride	8.0	
		Methyl Isobutyl Ketone	7.5	
		Phenol	12.6	
		Toluene	11.3	
		1,1,1 Trichloroethane	4.1	
		Xylene	15.8	
			22.3	
			8.7	
44D	Floor Operations	PM	0.1	
		PM_{10}	0.1	
		VOC	30.3	
		Lead	0.01	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate	1.8	
		Diethylene Glycol Monoethyl Ether Acetate		
		Ethyl Acrylate	3.6	
		Ethyl Benzene		
		Glycol Ethers	1.1	
		Methanol	2.5	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Methylene Chloride Methyl Isobutyl Ketone Phenol Toluene 1,1,1 Trichloroethane Xylene	8.0 7.5 12.6 11.3 4.1 15.8 22.3 8.7	
47	Foam-Blowing Operations	VOC HFC-245fa	8.5 0.7	1.3 2.5
48A	Phenolic Molding Operations	VOC Ammonia Formaldehyde Phenol	0.1 0.01 0.01 0.06	0.2 0.02 0.01 0.14
48A	Phenolic Molding Operations	VOC Ammonia Formaldehyde Phenol	0.1 0.01 0.01 0.06	
49	Hockey Puck Manufacturing	VOC Ammonia Formaldehyde Phenol	0.1 0.01 0.01 0.06	0.2 0.02 0.01 0.14
52A	Sling Liner Machines	VOC	8.5	2.2
52B	Sling Liner Machines	VOC	8.5	
56	MK 104 Sample Collection	PM PM_{10}	0.1 0.1	0.1 0.1
63	Nitramines and Explosives Dryer	VOC	18.0	0.5
67A through R	Grit Blast Machines	PM PM_{10}	-	0.4 0.4
67A	Grit Blast Machine Building 2-	PM PM_{10}	0.1 0.1	-

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	SH-2 Blasting Cabinet with Bag Filter			
67B	Grit Blast Machine Building 2-SH-2 Blasting Cabinet Bag Filter	PM PM_{10}	0.1 0.1	-
67C	Grit Blast Machine Building 2-SH-4 Hand-Blasting Cabinet with Shop Vacuum	PM PM_{10}	0.1 0.1	-
67D	Grit Blast Machine Building 2-SH-4 Hand-Blasting Cabinet with Cyclone	PM PM_{10}	0.1 0.1	-
67E	Grit Blast Machine Building 2-SH-14 Large Clamshell Unit with Cyclone and Baghouse	PM PM_{10}	0.3 0.3	-
67F	2-SH-14 Small Clamshell Unit with Cyclone	PM PM_{10}	0.1 0.1	-
67G	Grit Blast Machine Building 2-SH-14 Hand-	PM PM_{10}	0.1 0.1	-

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	Blasting Cabinet with Shop Vacuum			
67H	Grit Blast Machine Building 2-SH-14 Hand-Blasting Cabinet with Shop Vacuum	PM PM_{10}	0.1 0.1	-
67I	Grit Blast Machine Building 2-SH-14 Hand-Blasting Cabinet with Cyclone	PM PM_{10}	0.1 0.1	-
67J	Grit Blast Machine Building 33 Large Blasting Machine with Baghouse	PM PM_{10}	0.1 0.1	-
67K	Grit Blast Machine Building 36 Hand-Blasting Cabinet with Bag Filter	PM PM_{10}	0.3 0.3	-
67L	Grit Blast Machine Building M-2 Grit Blasting Machine Shop Vacuum	PM PM_{10}	0.2 0.2	- -
67M	Grit Blast Machine Building M-2 Sand Blasting Machine with			

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	Bag Filter			
67N	M-2 Grit Blasting Machine with Dust Collector	PM PM_{10}	0.3 0.3	-
67P	Grit Blast Machine Building M-82 Large Blasting Machine with Baghouse	PM PM_{10}	0.3 0.3	-
67Q	Grit Blast Machine Building M-85 Hand-Blasting Cabinet with Baghouse	PM PM_{10}	0.3 0.3	-
67R	Grit Blast Machine Building M-85 Hand-Blasting Cabinet with Baghouse	PM PM_{10}	0.3 0.3	-
69C	Building M-125 2.1 MMBTU/hr	PM PM_{10} SO_2 VOC CO NO_X HAPs	0.1 0.1 0.1 0.1 0.2 0.3 0.01	0.1 0.1 0.1 0.1 0.8 1.0 0.01
69D	Building M-125 2.1 MMBTU/hr	PM PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.1 0.8 1.0

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		HAPs	0.01	0.01
69E	Building 2-SH-2 2.0 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.8
		NO_X	0.2	0.9
		HAPs	0.01	0.01
69F	Building 2-SH-15 1.34 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.6
		NO_X	0.2	0.7
		HAPs	0.01	0.01
69G	Building 2-SH-15 1.34 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.6
		NO_X	0.2	0.7
		HAPs	0.01	0.01
69H	Building 2-SH-15 1.34 MMBTU/hr	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.6
		NO_X	0.2	0.7
		HAPs	0.01	0.01
71	Gasoline Storage Tank	VOC	44.1	0.9
		Benzene	2.6	0.1
		Ethyl Benzene	1.6	0.1
		Hexane	2.0	0.1
		Naphthalene	1.4	0.1
		Toluene	12.8	0.3
		Xylene	7.7	0.2
72	Diesel Fuel Storage Tanks	VOC	0.1	0.1
73	Nitramines	PM	0.1	0.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
	and Explosive Grinder	PM_{10}	0.1	0.1
74	Solvent Wipe Room	VOC	8.5	2.2
75	Sling Liner Machine	VOC	8.5	1.1
76A	Adhesive Primer Operations	PM	0.1	0.1
		PM_{10}	0.1	0.1
		VOC	14.3	3.0
		Lead	0.01	0.01
		1,2 Butylene Oxide	0.3	0.2
		Ethyl Benzene	1.5	0.6
		Formaldehyde	0.1	0.1
		Methanol	1.2	0.5
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.4
		Toluene	1.5	0.6
		1,1,1 Trichloroethane	3.2	1.3
		Trichloroethylene	2.3	1.0
		Xylene	4.9	2.0
76B	Adhesive Primer Operations	PM	0.1	
		PM_{10}	0.1	
		VOC	14.3	
		Lead	0.01	
		1,2 Butylene Oxide	0.3	
		Ethyl Benzene	1.5	
		Formaldehyde	0.1	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	
77A	Adhesive Operations	PM	0.1	0.1
		PM_{10}	0.1	0.1
		VOC	14.3	3.0
		Lead	0.01	0.01
		1,2 Butylene Oxide	0.3	0.2
		Ethyl Benzene	1.5	0.6

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		Formaldehyde	0.1	0.1
		Methanol	1.2	0.5
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.4
		Toluene	1.5	0.6
		1,1,1 Trichloroethane	3.2	1.3
		Trichloroethylene	2.3	1.0
		Xylene	4.9	2.0
77B	Adhesive Operations	PM	0.1	
		PM_{10}	0.1	
		VOC	14.3	
		Lead	0.01	
		1,2 Butylene Oxide	0.3	
		Ethyl Benzene	1.5	
		Formaldehyde	0.1	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	
78A	Adhesive Barrier Coating Operation	PM	0.1	0.1
		PM_{10}	0.1	0.1
		VOC	14.3	3.0
		Lead	0.01	0.01
		1,2 Butylene Oxide	0.3	0.2
		Ethyl Benzene	1.5	0.6
		Formaldehyde	0.1	0.1
		Methanol	1.2	0.5
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.4
		Toluene	1.5	0.6
		1,1,1 Trichloroethane	3.2	1.3
		Trichloroethylene	2.3	1.0
		Xylene	4.9	2.0
78B	Adhesive Barrier Coating Operation	PM	0.1	
		PM_{10}	0.1	
		VOC	14.3	
		Lead	0.01	

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		1,2 Butylene Oxide	0.3	
		Ethyl Benzene	1.5	
		Formaldehyde	0.1	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	
80	Warhead Coating Operation	VOC	1.0	0.3
		CFC-113	6.6	2.0
81	Diesel-Powered Pump Rocket at Motor Case Washout Facility	PM	0.7	2.9
		PM_{10}	0.7	2.9
		SO_2	0.7	2.7
		VOC	0.8	3.3
		CO	2.0	8.7
		NO_X	9.2	40.0
		Acetaldehyde	0.1	0.1
		Acrolein	0.1	0.1
		Benzene	0.1	0.1
		1,3 Butadiene	0.1	0.1
		Formaldehyde	0.1	0.1
		PAHs	0.1	0.1
		Toluene	0.1	0.1
		Xylene	0.1	0.1
84	Warhead Manufacturing Operations	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	10.1	1.7
		CO	0.3	1.3
		NO_X	0.4	1.7
		HAPs	0.01	0.01
85	Motor Case Cleaning Operations	VOC	17.0	2.2
		Methylene Chloride	11.0	2.8
		1,1,1 Trichloroethane	10.9	2.8
86	Emergency Power Generator	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		VOC	0.1	0.1
		CO	0.7	0.2
		NO_x	0.4	0.1
		HAPs	0.01	0.01
87	Emergency Power Generator	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	7.4	1.9
		NO_x	4.4	1.1
		HAPs	0.01	0.01
89	Emergency Power Generator Building M-142	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	5.9	1.5
		NO_x	3.5	0.9
		HAPs	0.01	0.01
90	Emergency Power Generator Building M-8	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	4.2	1.1
		NO_x	2.5	0.7
		HAPs	0.01	0.01
91	Emergency Power Generator Building 66	PM	0.7	0.2
		PM_{10}	0.7	0.2
		SO_2	0.7	0.2
		VOC	0.8	0.2
		CO	2.1	0.6
		NO_x	9.8	2.5
		HAPS	0.08	0.08
92	Emergency Power Generator Building M-2	PM	1.2	0.3
		PM_{10}	1.2	0.3
		SO_2	1.1	0.3
		VOC	1.3	0.4
		CO	3.5	0.9
		NO_x	15.9	4.0
		HAPs	0.08	0.08

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
93	Emergency Power Generator Building M-11	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	5.9	1.5
		NO_x	3.5	0.9
		HAPs	0.03	0.03
94	Drying Oven Building M-2	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.2	0.8
		NO_x	0.2	0.9
		HAPs	0.01	0.01
SN-95	Emergency Power Generator M-125	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	24.1	6.1
		NO_x	0.4	0.1
		HAPs	0.01	0.01
96	Boiler Building M-125	PM	0.1	0.2
		PM_{10}	0.1	0.2
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.4	1.6
		NO_X	0.5	1.9
		HAPs	0.1	0.1

*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.
**Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

SECTION III: PERMIT HISTORY

Permits 538-A and 617-A were issued to Atlantic Research in 1979 and 1980 for the installation of a facility in Highland Industrial Park to manufacture rocket propellants and the assembly of rocket motors.

Permit 617-AR-1 was issued on September 23, 1983. This permit allowed for installation of additional facilities to re-manufacture rocket motors from the U.S. Army Red River Depot in Texarkana.

Permit 617-AR-2 was issued on April 25, 1989. It allowed for production of solid propellant rocket motors and new facilities for painting rocket motor cases.

Permit 617-AR-3 was issued on April 18, 1990. This permit allowed for construction of a new facility to be used to conduct acceptance tests for military and commercial high explosives.

In 1992, ARC submitted an application for modification of its existing SIP permit. At that time, a number of significant process changes, including additional emission sources, were proposed for the East Camden facility. In June 1992, a draft air permit, 617-AR-4, was issued. ARC submitted comments on the draft in July 1992. A final permit was never issued.

In May 1996, a minor modification of 617-AR-3 was approved. It authorized production of the Sidewinder Missile at the East Camden facility. New sources SN-37 through SN-45 were added to the permit.

In October 1997, another minor modification of 617-AR-3 was approved. It authorized production of the AMRAAM warhead (SN-80) and the installation of a new grit blast machine (SN-67) at Building 2-SH-14.

In May 1998, a third minor modification of 617-AR-3 was approved. It authorized installation of a diesel-powered pump (SN-81). This equipment was part of a new facility for the reclamation of rocket motor cases.

In September 1998, a fourth minor modification was approved. It authorized construction of a new facility for the manufacture of air bag propellants (SN-82).

In February 1999, a de minimis change to 617-AR-3 was approved. It authorized production of the PAC-2 Missile. New sources SN-74, SN-75, and SN-79 were added to the permit and SN-67 was modified.

In March 1999, a second de minimis change was approved. It authorized production of the Advanced Tomahawk Missile at the facility. New source SN-83 was added to the permit and Sources SN-39 through SN-42 were modified.

On December 3, 2001, air permit 617-AOP-R0 was issued to ARC. This permit allowed for installation of the new Advanced Tomahawk production program, for modifications to the PAC-2 manufacturing operations, and for expansion of the air bag propellant and component manufacturing operations. This was also the first Title V Operating Permit issued to this facility.

On October 10, 2002, air permit 617-AOP-R1 was issued to Atlantic Research Corporation. This minor modification application allowed for production of the Supersonic Sea-Skimming Target Rocket (SSST) Motor and to add an insignificant activity. A proposed new vent for an existing cutting/grinding operation was also added to the list of insignificant activities. Emissions increases were 1.3 tons per year of carbon monoxide and 0.02 tons per year of hydrogen fluoride.

On May 13, 2003, Atlantic Research Corporation was granted authorization to relocate the Thermal Treatment Facility (SN-04) to a new site within the East Camden facility. There was no change in throughput or emissions.

On July 7, 2003, air permit 0617-AOP-R2 was issued to Atlantic Research Corporation. This minor modification application allowed for a replacement of a 1.7 MMBTU/hr boiler in SN-02 with a new 3.352 MMBTU/hr boiler.

On August 21, 2003, air permit 0617-AOP-R2 was administratively amended to add a new building to SN-82. There was no change in emissions.

On September 9, 2003, Atlantic Research Corporation was granted authorization to replace two 1.7 MMBTU/hr boilers at Building M-2 with a 3.352 MMBTU/hr unit (SN-02). There was no change in overall fuel capacity or emissions.

On October 4, 2003, air permit 0617-AOP-R2 was transferred from Atlantic Research Corporation to Aerojet-General Corporation.

On July 15, 2004, air permit 0617-AOP-R2 was administratively amended to add two insignificant activities. These activities were the Six-Bladed Saw, Camfer, and Drill Machine and the Composite Case Grinding Machine. There was no change in emissions.

On June 29, 2005, air permit 0617-AOP-R3 was issued to Aerojet – General Corporation. This permit involved several minor modifications for this facility. They were the following:

1. Production of a new propellant, ARCOMP 408, at the facility. This product is an ignition material for automobile air bag inflators. As part of the ARCOMP 408 program, three additional production buildings (70, 71, and 74) were installed at the East Camden facility. These units are considered part of the New Air Bag Manufacturing Operations (SN-82). Production of ARCOMP 408 did not change any of the currently permitted emission rates.

2. An increase in the throughput of the waste air bag propellants burned in the Thermal Treatment Facility (SN-04). Throughput was increased by 25,000 lb/year. This change increased PM and PM_{10} by 6.04 tons per year, NO_X by 0.01 tons per year, and Hydrogen Chloride by 0.01 tons per year.

3. Correct the number of boilers listed in the group Process Boilers (SN-25). During an internal compliance audit, Aerojet determined that the inventory of gas-fired process equipment used to prepare the original Operating Permit application was not accurate. A total of 7, rather than 4, boilers should have been included. The correct heat input capacity of the equipment is 10.06 MMBTU/hr instead of 4.20.

4. Install a new Grit Blast Machine as part of SN-67. In addition, the existing Liner Spray Machine (SN-28) was to be replaced with an equivalent unit.

On December 1, 2005, air permit 0617-AOP-R4 was issued to Aerojet- General Corporation. This minor modification application allowed for installation of new processes and equipment for the production of warheads and ordnance at Building M-11 (SN-84). These items included two coating operations (application of asphalt and wax liners), two propane-fired "melter/applicator machines," and a natural gas-fired boiler. This change increased PM by 0.2 tons per year, SO_2 by 0.1 tons per year, VOCs by 1.7 tons per year, CO by 1.3 tons per year, and NO_X by 1.7 tons per year. This permit also added two steam-heated ovens to the Insignificant Activities section.

On April 3, 2006, air permit 0617-AOP-R5 was issued to Aerojet - General Corporation. This minor modification application allowed for processing new rocket propellants that contain two hazardous air pollutants (Cadmium and Chromium) during the testing and treatment activities at the Rocket Test Facility (SN-03), the Thermal Treatment Facility (SN-04), and the High Explosives Test Facility (SN-30). In addition, Aerojet proposed to install a new spray liner machine (SN-07) and grit blast machine (SN-67) to support multiple rocket motor manufacturing programs. Finally, Aerojet proposed to implement new motor case cleaning activities (SN-85) to support several production programs. This included construction of a solvent wipe room and installation of a motor case flush-cleaning apparatus. The rocket propellant part of this modification resulted in permitted emissions increases of 0.05 tpy of Cadmium, 0.01 tpy of Chlorine, 0.54 tpy of Chromium, and 0.01 tpy of Hydrogen Chloride and permitted emissions decrease of 0.68 tpy of lead and 0.32 tpy of 1,3 Dioxolane. The new SN-85 part of this modification resulted in permitted increases of 1.6 tpy of VOC, 1.58 tpy of Methylene Chloride, 1.58 tpy of Methyl Ethyl Ketone, and 1.58 tpy of 1,1,1-Trichloroethane.

On July 3, 2006, air permit 0617-AOP-R6 was issued to Aerojet – General Corporation. This minor modification was issued to replace one of the two natural gas-fired process boilers at Building 48 (SN-25). The new unit has a heat input capacity of 2.00 MMBTU/hr and replaces the 1.55 MMBTU/hr boiler. In addition, the source description for SN-02 was corrected. Increases from this modification were 0.2 tons per year of CO and 0.2 tons per year of NO_X.

Permit 617-AOP-R7 was issued on January 7, 2007. This modification is the first Title V Permit renewal for this facility. In addition, the facility made the following changes:

- Decreased hourly and annual throughput limits of rocket propellant at the Rocket Test Facility (SN-03),
- Decreased annual throughput limits for air bag propellants at the Rocket Test Facility (SN-03),
- Eliminated individual throughput limits for Arcadene 428 propellant facility wide (Arcadene 428 will be included in the general rocket propellant now),
- Decreased annual throughput limit for explosives in the High Explosives Test Facility (SN-30),
- Eliminated individual throughput limits for air bag propellants at the High Explosives Test Facility (SN-30) (air bag propellants will be included in the general explosives limit),
- Removed Rubber Molding Operations (SN-50), Barrier Coating Operation (SN-53), and Negative Pressure Tables (SN-65) from the permit,
- Recalculated and Moving Extruder Operations (SN-51) and MLRS Igniter Assembly (SN-55) to the Insignificant Activities Table,
- Removed the composite solvent "CompSol" from the permit,
- Revised formulation limits for individual solvents, paints, primers, adhesives, barrier coatings, and other process materials plantwide, and
- Increased annual throughput limits for paints, thinners, primers, adhesives, barrier coatings, and other process materials plantwide.

This modification decreased PM/PM_{10} emissions by 6.6 tons per year, VOC emissions by 44.6 tons per year, CO emissions by 19.7 tons per year and SO_2 emissions by 0.1 tons per year. It increased emissions of NO_X emissions by 3.5 tons per year and lead emissions by 2.28 tons per year.

Permit 617-AOP-R8 was issued on August 8, 2007. This modification added a 4.19 MMBTU/hr natural gas-fired boiler at Building M-2. Aerojet, with this modification, also added a new grit blast machine to SN-67 in building M-2. The source SN-67 was a grouped source accounting for all grit blast emissions from the facility. An administrative amendment was issued on May 30, 2008. This amendment added a natural gas fired emergency generator to the insignificant activities list.

Permit 617-AOP-R9 was issued on March 4, 2010. In this modification Aerojet replaced two 2.0 MMBTU/hr boilers at Building M-8 with a single 4.19 mmBTU/hr boiler. Aerojet also added a propane-fired emergency generator, SN-86.

Permit 617-AOP-R10 was issued on September 8, 2011. In this modification Aerojet added a 125hp natural gas-fired emergency generator, SN-87, located at Building 61.

Permit 617-AOP-R11 was issued on April 4, 2015. In this renewal the boiler grouped source, SN-02, was separated into seven individual sources, MACT Subparts DDDDD and ZZZZ were added, the annual limit at SN-04, the Thermal Treatment Facility, was increased to 950,000

pounds per year, and the requirements for MACT Subpart T was removed. The facility no longer uses a halogenated solvent as defined by the Subpart and is no longer subject to the MACT. Some boilers and emergency generators were added because the sources are new or some previously insignificant activities now subject to federal regulations.

SECTION IV: SPECIFIC CONDITIONS

SN-02A, 02B, 02C, 02D, 02E, 02F, 02G, 25A, 25B, 25C, 25D, 25E, 25F, 69C, 69D, 69E, 69F, 69G, 69H, SN-94 and SN-96

Natural Gas-Fired Boilers and Heaters

Source Description

These boilers are used to produce the steam and/or hot water for the operations in facility buildings. Sizes and locations of each of the boilers are listed with the emission rates in Specific Conditions 1 and 2. All of these units are less than 10 MMBTU/hr each and are therefore not subject to New Source Performance Standard Subpart Dc. All sources in this section are subject to MACT Subpart DDDDD. SN-02G and 96 are new sources as defined by the MACT. All others are existing sources as defined in the MACT.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations and burning only natural gas. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
02A	Boiler #1 Building M-2 3.352 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.3 0.4	0.2 0.1 0.1 1.3 1.5
02B	Boiler #2 Building M-2 3.352 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.3 0.4	0.2 0.1 0.1 1.3 1.5
02C	Boiler #4R Building M-2 4.185 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.4 0.5	0.2 0.1 0.2 1.6 1.9
02D	Boiler #6 Building M-8 2.1 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.8 1.0

02E	Boiler #7 Building M-8 2.1 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.8 1.0
02F	Boiler #8 Building M-8 4.185 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.4 0.5	0.2 0.1 0.2 1.6 1.9
02G	Boiler #9 Building M-2	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.4 0.5	0.2 0.1 0.2 1.6 1.9
SN-25A	Natural Gas Fired Boiler Unit #1 Building #47 2.35 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.9 1.1
SN-25B	Natural Gas Fired Boiler Unit #2 Building #48 0.75 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.1 0.1	0.1 0.1 0.1 0.4 0.4
SN-25C	Natural Gas Fired Boiler Unit #3 Building #48 2.0 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.8 0.9
SN-25D	Natural Gas Fired Boiler Unit #4 Building #66 1.15 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.1 0.2	0.1 0.1 0.1 0.5 0.6
SN-25E	Natural Gas Fired Boiler Unit #5 Building M-85 2.0 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.8 0.9

SN-25F	Natural Gas Fired Boiler Unit #6 Building M-85 2.0 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.8 0.9
SN-69C	Building M-125 2.1 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.8 1.0
SN-69D	Building M-125 2.1 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.8 1.0
SN-69E	Building 2-SH-2 2.0 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.8 0.9
SN-69F	Building 2-SH-15 1.34 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.6 0.7
SN-69G	Building 2-SH-15 1.34 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.6 0.7
SN-69H	Building 2-SH-15 1.34 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.6 0.7
94	Drying Oven Building M-2	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 0.2 0.2	0.1 0.1 0.1 0.8 0.9

96	Boiler Building M-125 4.185 MMBTU/hr	PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.4 0.5	0.2 0.1 0.2 1.6 1.9

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations and by burning only natural gas. [Reg.18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
02A	Boiler #1 Building M-2 3.352 MMBTU/hr	PM HAPs	0.1 0.01	0.2 0.01
02B	Boiler #2 Building M-2 3.352 MMBTU/hr	PM HAPs	0.1 0.01	0.2 0.01
02C	Boiler #4R Building M-2 4.185 MMBTU/hr	PM HAPs	0.1 0.01	0.2 0.01
02D	Boiler #6 Building M-8 2.1 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
02E	Boiler #7 Building M-8 2.1 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
02F	Boiler #8 Building M-8 4.185 MMBTU/hr	PM HAPs	0.1 0.01	0.2 0.01
02G	Boiler #9 Building M-2	PM HAPs	0.1 0.01	0.2 0.01
SN-25A	Natural Gas Fired Boiler Unit #1 Building #47 2.35 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-25B	Natural Gas Fired Boiler Unit #2 Building #48 0.75 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01

SN-25C	Natural Gas Fired Boiler Unit #3 Building #48 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-25D	Natural Gas Fired Boiler Unit #4 Building #66 1.15 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-25E	Natural Gas Fired Boiler Unit #5 Building M-85 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-25F	Natural Gas Fired Boiler Unit #6 Building M-85 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-69C	Building M-125 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-69D	Building M-125 2.1 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-69E	Building 2-SH-2 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-69F	Building 2-SH-2 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-69G	Building 2-SH-2 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
SN-69H	Building 2-SH-2 2.0 MMBTU/hr	PM HAPs	0.1 0.01	0.1 0.01
94	Drying Oven Building M-2	PM HAPs	0.1 0.01	0.1 0.01
96	Boiler Building M-125 4.185 MMBTU/hr	PM HAPs	0.1 0.1	0.2 0.1

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance will be demonstrated by only burning natural gas.

SN	Limit	Regulatory Citation
02A, 02B, 02D, 02E, 02F, 02G, 25A, 25B, 25C, 25D, 25E, 25F, 69C, 69D, 69E, 69F, 69G, 69H, 94, 96	5%	Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

4. These sources, SN-02A, 02B, 02C, 02D, 02E, 02F, 02G, 25A, 25B, 25C, 25D, 25E, 25F, 69C, 69D, 69E, 69F, 69G, 69H, and SN-94, are subject to 40 C.F.R Part 63 Subpart DDDDD. SN-02G and SN-96 are new sources under the MACT and are required to comply upon startup. All other sources are required to comply with this subpart by January 31, 2016. [Reg.19.304 and 40 C.F.R 63, Subpart DDDDD]

5. The permittee shall perform a onetime energy assessment for SN-02A, 02B, 02C, 02D, 02E, 02F, 25A, 25B, 25C, 25D, 25E, 25F, 69C, 69D, 69E, 69F, 69G, 69H, and 94. [Reg.19.304 and 40 C.F.R 63, Subpart DDDDD]

6. The permittee shall for SN-02A, 02B, 02C, 02D, 02E, 02F, 25A, 25B, 25C, 25D, 25E, 25F, 69C, 69D, 69E, 69F, 69G, 69H, 94 and 96 conduct an initial tune up and a tune up every 5 years. [Reg.19.304 and 40 C.F.R 63, Subpart DDDDD]

7. The permittee shall submit initial notifications for SN-02A, 02B, 02C, 02D, 02E, 02F, 25A, 25B, 25C, 25D, 25E, 25F, 69C, 69D, 69E, 69F, 69G, 69H, 94 and 96 by the date required in Subpart DDDDD. [Reg.19.304 and 40 C.F.R 63, Subpart DDDDD]

8. The permittee shall maintain all records required by 40 C.F.R 63.7555 and 63.7560. These records shall be kept for five years minimum, on site, and made available to Department personnel upon request. [Reg.19.304 and 40 C.F.R 63, Subpart DDDDD]

9. The permittee shall submit compliance reports every 5 years as required by 40 C.F.R 63.7555. [Reg.19.304 and 40 C.F.R 63, Subpart DDDDD]

SN-03A, 03B, 03C, 03D, 03E, 03F - Rocket Test Facility

Source Description

In the Rocket Test Area, the facility test fires a certain number of rocket motors, air bag initiators, and other propellant devices as part of its Quality Assurance/Quality Control (QA/AC) Program. The testing sites include Bay 15, Bay 18, Bay 45, Building 16, Building 19, and the production and development Test Bays 1 and 2 at Building M-85. The amount of energetic material tested ranges from less than one pound to 20,000 pounds per event.

Specific Conditions

10. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 12 and 13, and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
03A-F	Rocket Test Facility	PM_{10} VOC CO NO_X Lead	-	48.7 2.5 44.5 0.5 1.5
03A	Rocket Test Facility Bay 15	PM_{10} VOC CO NO_X Lead	1,900.0 100.0 1,765.5 16.5 58.8	
03B	Rocket Test Facility	PM_{10} VOC CO NO_X Lead	1,900.0 100.0 1,765.5 16.5 58.8	
03C	Rocket Test Facility	PM_{10} VOC CO NO_X Lead	7,600.0 400.0 7,062.0 66.0 58.8	
03D	Rocket Test Facility	PM_{10} CO NO_X	45.7 14.7 0.1	
03E	Rocket Test Facility	PM_{10} CO NO_X	45.7 14.7 0.1	

03F	Rocket Test Facility	PM_{10} CO NO_X	45.7 14.7 0.1	

11. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 12 and 13, and equipment limitations. [Reg.18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
03A-F	Rocket Test Facility	PM Cadmium Chlorine Chromium Hydrogen Chloride Hydrogen Fluoride	-	48.7 0.01 0.3 0.11 35.1 0.1
03A	Rocket Test Facility Bay 15	PM Cadmium Chlorine Chromium Hydrogen Chloride Hydrogen Fluoride	1,900.0 0.46 12.0 4.2 1,400.0 4.1	
03B	Rocket Test Facility	PM Cadmium Chlorine Chromium Hydrogen Chloride Hydrogen Fluoride	1,900.0 0.46 12.0 4.2 1,400.0 4.1	
03C	Rocket Test Facility	PM Cadmium Chlorine Chromium Hydrogen Chloride Hydrogen Fluoride	7,600.0 0.46 48.0 4.2 5,600.0 16.2	
03D	Rocket Test Facility	PM Hydrogen Chloride	45.7 1.6	
03E	Rocket Test Facility	PM Hydrogen Chloride	45.7 1.6	
03F	Rocket Test Facility	PM Hydrogen Chloride	45.7 1.6	

12. The permittee shall not burn in any rocket propellant or air bag propellant in excess of the limits in the table below. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

Source	Rocket Propellant	Rocket Propellant with Metals	Air Bag Propellant
03A	5,000 lb/hr	3,000 lb/hr	-
03B	5,000 lb/hr	3,000 lb/hr	-
03C	20,000 lb/hr	3,000 lb/hr	-
03D	-	-	100 lb/hr
03E	-	-	100 lb/hr
03F	-	-	100 lb/hr
All SN-03A through SN-03F	250,000 lb/consecutive 12 months	150,000 lb/ consecutive 12 months	5,000 lb/ consecutive 12 months

13. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 12. These records may be used by the Department for enforcement purposes. Hourly rate records shall be updated on a daily basis. The records for the consecutive twelve month limits shall be updated on a monthly basis. Records shall be updated by the fifteenth day of the month following the month of the records. All records shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-04 - Thermal Treatment Facility

Source Description

The Thermal Treatment Facility is where the facility destroys various scrap propellants and other waste energetic materials. Reactive wastes generated at the facility are first assembled in a number of marked accumulation points near the point of generation. The wastes are then collected and transported to the Thermal Treatment Facility. The wastes are placed in a thermal treatment device and destroyed by open burning. The Thermal Treatment Facility is a permitted hazardous waste treatment facility.

Specific Conditions

14. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 16, 17, and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
SN-04	Thermal Treatment Facility	PM_{10}	3,874.4	143.2
		VOC	160.0	9.3
		CO	40.0	2.4
		NO_x	236.0	13.7
		Lead	84.0	4.9

15. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 16, 17, and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
SN-04	Thermal Treatment Facility	PM	3,874.4	143.2
		Cadmium	0.97	0.06
		Chlorine	129.6	7.5
		Chromium, Trivalent	7.9	0.45
		Chromium, Hexavalent	0.13	0.01
		Hydrogen Chloride	1840.8	106.5
		Hydrogen Fluoride	12.0	0.7

16. The permittee shall not burn waste rocket or airbag propellant at SN-04 in excess of limits in the following table. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

Material	Hourly Rate Limit	Consecutive 12 month limit
Waste Rocket Propellant	8000 pounds per hour	925,000 pounds per year

Miscellaneous Energetic Materials	8000 pounds per hour	25,000 pounds per year

17. The permittee shall maintain records which demonstrate compliance with the throughput limits set in Specific Condition 16. These records may be used by the Department for enforcement purposes. Hourly rate records shall be updated on a daily basis. The records for the consecutive twelve month limits shall be updated on a monthly basis. Records shall be updated by the fifteenth day of the month following the month of the records. All records shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-07 - Liner Mixer and Spray Liner Machine

Source Description

The Liner Mixer and Spray Machine are used to prepare and apply liner materials to the insides of the rocker motor cases. This equipment is located in Building M-8. The motor cases may be either insulated or bare metal. The liner materials are mixed in a closed mixer and then mechanically applied to the interior of the degreased motor case. The batch lining operation is performed one component at a time. Plantwide Condition **7** lists available solvents and VOC/HAP compositions.

Specific Conditions

18. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
SN-07	Liner Mixer and Spray Liner Machine	VOC	17.0	2.2

SN-11 - Lacquer Preparation

Source Description

Various liquid explosives are called "lacquer" by the permittee. Lacquer preparation is done in Building C-56. Preparation of liquid explosive compounds involves the use of organic solvents for stabilizing agents. These solvents include: acetone, methylene chloride, ethyl alcohol, and isopropyl alcohol. Lacquer received from outside venders is premixed with any of those solvents before transportation. These solvents are removed from the lacquer before use by nitrogen gas stripping. Lacquer preparation also includes adding solvents to liquid explosives prior to their use, shipment, and/or long-term storage. Plantwide Condition 7 lists available solvents and VOC/HAP compositions.

Specific Conditions

19. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 21, Plantwide Condition **7**, and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
SN-11	Lacquer Preparation	VOC	40.1	5.1

20. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 21, Plantwide Condition **7**, and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
SN-11	Lacquer Preparation	Acetone Methylene Chloride	40.1 40.1	5.1 5.1

21. The permittee shall not use in excess of 20,000 pounds of lacquer premix in SN-11 during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

22. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 21. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-12 - Spray Paint Booth

Source Description

This spray painting area is located at Building C-60. Only a limited amount of surface coating is performed at this location. The paints are applied using aerosol spray cans. The painting area is equipped with a vent hood for general ventilation. In addition to painting, solvents are used to clean various components prior to further processing. The cleaning agents are applied with wiping cloths. Alternative solvents will also be used. Plantwide Condition 7 lists available solvents and VOC/HAP compositions and Plantwide Condition 11 lists available paint VOC/HAP compositions. Plantwide Condition 19 lists available adhesive VOC/HAP compositions.

Specific Conditions

23. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions 7, 9, 11, and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
SN-12	Spray Paint Booth	PM_{10}	0.1	0.1
		VOC	15.5	2.6
		Lead	0.01	0.01

24. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions 7, 9, 11, 17, and 19 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
SN-12	Spray Paint Booth	PM	0.1	0.1
		Acetone	9.4	1.4
		Cumene	0.4	0.1
		Ethyl Acrylate	1.1	0.3
		Ethyl Benzene	0.7	0.2
		Methanol	1.4	0.4
		Methyl Isobutyl Ketone	4.2	1.1
		Toluene	6.0	1.5
		Xylene	4.2	1.1

SN-13 - Ultrasonic Cleaner

Source Description

The Ultrasonic Cleaner is used to clean/degrease a variety of small parts. The cleaner consists of a one-liter beaker set in an ultrasonic waterbath. This open-top, batch vapor degreaser has a surface area of 1.95 square feet. It is located in Building M-85. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. This source is not subject to 40 C.F.R 63, Subpart T because a halogenated solvent as defined by Subpart T is not used in this equipment.

Specific Conditions

25. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
SN-13	Ultrasonic Cleaner	VOC	0.2	0.3

26. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.18.801 and Regulation 18 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
SN-13	Ultrasonic Cleaner	1,2 Butylene Oxide	0.01	0.01

27. The permittee shall not use any halogenated solvents as defined by MACT Subpart T at this source. [Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

SN-19 - Motor Case Cleaner

Source Description

This Motor Case Cleaner is used to clean/degrease rocket motor cases prior to further processing. This source is located in Building 2-SH-14 and has a capacity of 1,200 gallons of solvent. It is an open-top, batch degreaser with a working area of 44.0 square feet. Various solvents will be used in the degreaser. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. This source is not subject to 40 C.F.R 63, Subpart T because a halogenated solvent as defined by Subpart T is not used in this equipment.

Specific Conditions

28. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source Number	Description	Pollutant	lb/hr	tpy
SN-19	Motor Case Cleaner	VOC	6.6	13.8

29. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source Number	Description	Pollutant	lb/hr	tpy
SN-19	Motor Case Cleaner	1,2 Butylene Oxide	0.07	0.14

30. The permittee shall not use any halogenated solvents as defined by MACT Subpart T at this source. [Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

SN-20A and B - Solvent Wipe Rooms

Source Description

One wipe room is operated in Building 2-SH-14, SN-20A, and one wipe room is operated in Building 2-SH-15, SN-20B. These rooms are used for motor case degreasing prior to application of the case liner. Other parts cleaning activities are also done. The solvents are manually applied using wiping cloths, and the components are allowed to air-dry. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. This source is not subject to 40 C.F.R 63, Subpart T because it is a hand-wipe cleaning activity.

Specific Conditions

31. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-20A	Solvent Wipe Rooms	VOC	8.5	2.2
SN-20B	Solvent Wipe Rooms	VOC	8.5	

SN-22 - Mix Room

Source Description

This mix room, located in Building 2-SH-15, is used to mix ingredients during the preparation of motor case liner materials. Plantwide Condition **7** lists available solvents and VOC/HAP compositions.

Specific Conditions

32. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-22	Mix Room	VOC	8.5	4.3

SN-24 - Spray Paint Booth

Source Description

This paint booth is located in Building 48. It is used to paint various rocket components. Parts cleaning may also be performed in this spray booth. Plantwide Condition **7** lists available solvents and VOC/HAP compositions, and Plantwide Condition **11** lists available paint VOC/HAP compositions.

Specific Conditions

33. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **9**, and **11** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-24	Spray Paint Booth	PM_{10}	0.10	0.10
		VOC	53.5	7.6
		Lead	0.01	0.01

34. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **9**, and **11** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-24	Spray Paint Booth	PM	0.10	0.10
		Acetone	11.20	2.10
		Chromium Compounds	0.01	0.01
		Cumene	1.4	0.3
		Ethyl Acrylate	4.2	0.8
		Ethyl Benzene	2.8	0.6
		Methanol	5.6	1.1
		Methyl Isobutyl Ketone	16.8	3.2
		Toluene	23.8	4.5
		Xylene	16.8	3.2

SN-28 - Spray Liner Machine and Mixer Unit

Source Description

The Liner Spray Machine is used to apply a liner material to the insides of the rocker motor cases. This equipment is located in Building M-2. The motor cases may be either insulated or bare metal. The liner material is mechanically applied to the interior of the degreased motor case. Plantwide Condition **7** lists available solvents and VOC/HAP compositions.

Specific Conditions

35. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-28	Spray Liner Machine and Mixer Unit	VOC	17.0	2.2

SN-30 - High Explosives Test Facility

Source Description

The facility conducts performance-testing of energetic materials at the High Explosive Test Facility as part of its QA/QC Program. This facility is located in the 16-AT Area of the Highland Industrial Park approximately nine miles from the main complex. The explosives are detonated with initiation by impact of a bullet, by falling, or by a cap-initiated high-explosive donor charge. Testing is also initiated by controlled bonfire and under proof-of-fire conditions. Test items range from finished componets to military ordnance to R&D test samples.

Specific Conditions

36. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 38 and 40 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-30	High Explosives Test Facility	PM_{10}	137.0	5.5
		VOC	6.0	0.3
		CO	106.0	4.3
		NO_x	1.0	0.1
		Lead	5.88	0.24

37. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 38 and 40, and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	Tpy
SN-30	High Explosives Test Facility	PM	137.0	5.5
		Cadmium	0.05	0.01
		Chlorine	0.72	0.03
		Chromium, Trivalent	0.42	0.02
		Hydrogen Chloride	89.1	3.8

38. The permittee shall not use in excess of 300 pounds of energetic materials in SN-30 during any one hour period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

39. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 38. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department as required in General Provision 7. Records

shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

40. The permittee shall not use in excess of 24,000 pounds of energetic materials in SN-30 during any consecutive 12 month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

41. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 40. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to Department as required in General Provision 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-36 - Vapor Degreaser

Source Description

This batch vapor degreaser in Building 2-SH-4 is used to remove residual oil and grease from various rocket motor parts. This machine has a capacity of 25 gallons of solvent and a working surface area of 6.9 square feet. Plantwide Condition **7** lists available solvents and VOC/HAP compositions.

Specific Conditions

42. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-36	Vapor Degreaser	VOC	1.1	8.3

43. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-36	Vapor Degreaser	1,2 Butylene Oxide	0.02	0.09

SN-37A and B - Motor Case Cleaning (Prior to Grit Blasting)

Source Description

This operation, located in Building 2-SH-2, SN-37A, or Building 2-SH-14, SN-37B, consists of removing residual preservative oil from rocket motor cases. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. This source is not subject to 40 C.F.R 63, Subpart T because these provisions do not regulate the use of halogenated solvents in hand-wipe cleaning activities.

Specific Conditions

44. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-37A	Motor Case Cleaning (Prior to Grit Blasting)	VOC	4.3	1.5
SN-37B		VOC	4.3	

SN-38A and B - Motor Case Cleaning (After Grit Blasting)

Source Description

This operation, located in Building 2-SH-2, SN-38A, or Building 2-SH-14, SN-38B consists of removing dust from rocket motor cases after they have been grit blasted. This source is not subject to 40 C.F.R 63 Subpart T because these provisions do not regulate the use of halogenated solvents in hand-wipe cleaning activities.

Specific Conditions

45. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-38A	Motor Case Cleaning (After to Grit Blasting)	VOC	4.3	1.5
SN-38B		VOC	4.3	

SN-39A and B - Adhesive Primer Operations

Source Description

Adhesive Primer Operations are located in Building 2-SH-14, SN-39A, and 2-SH-15, SN-39B. Interior surfaces of clean, dry rocket motor cases are coated with an adhesive primer. Thinning of the primer is done using methyl ethyl ketone. The primer is applied by hand.

Specific Conditions

46. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-39A	Adhesive Primer Operations	VOC	10.0	3.0
SN-39B	Adhesive Primer Operations	VOC	10.0	

47. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Pollutant	Description	Pollutant	lb/hr	tpy
SN-39A	Adhesive Primer Operations	1, 2–Butylene Oxide	0.29	0.12
		Ethyl Benzene	1.44	0.58
		Formaldehyde	0.03	0.02
		Methanol	1.2	0.46
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.35
		Toluene	1.5	0.58
		1,1,1 Trichloroethane	3.2	1.27
		Trichloroethylene	2.3	0.92
		Xylene	4.9	1.96

Pollutant	Description	Pollutant	lb/hr	tpy
SN-39B	Adhesive Primer Operations	1, 2–Butylene Oxide	0.29	
		Ethyl Benzene	1.44	
		Formaldehyde	0.03	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	

SN-40A and B - Adhesive Operations

Source Description

Following the application of the adhesive primer, adhesive is applied to the interior surfaces of the rocket motor cases. Adhesive Operations is located in Building 2-SH-14, SN-40A, and 2-SH-15, SN-40B. The adhesive is applied by hand.

Specific Conditions

48. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-40A	Adhesive Operations	VOC	10.0	3.0
SN-40B		VOC	10.0	

49. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-40A	Adhesive Operations	1, 2–Butylene Oxide	0.29	0.12
		Ethyl Benzene	1.44	0.58
		Formaldehyde	0.03	0.02
		Methanol	1.2	0.46
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.35
		Toluene	1.5	0.58
		1,1,1 Trichloroethane	3.2	1.27
		Trichloroethylene	2.3	0.92
		Xylene	4.9	1.96

Source	Description	Pollutant	lb/hr	tpy
SN-40B	Adhesive Operations	1, 2–Butylene Oxide	0.29	
		Ethyl Benzene	1.44	
		Formaldehyde	0.03	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	

SN-41A and 41B - Adhesive Barrier Coating Operations

Source Description

Following the adhesive application, an adhesive barrier coating is applied to the interior surfaces of the rocket motor cases. This operation is performed in Building 2-SH-14, SN-41A, and Building S-SH-15, SN-41B. The barrier coating is applied by spray nozzles mounted on an automated, traveling wand.

Specific Conditions

50. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-41A	Adhesive Barrier Coating Operations	VOC	10.0	3.0
SN-41B		VOC	10.0	

51. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-41A	Adhesive Barrier Coating Operations	1, 2–Butylene Oxide	0.29	0.12
		Ethyl Benzene	1.44	0.58
		Formaldehyde	0.03	0.02
		Methanol	1.2	0.46
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.35
		Toluene	1.5	0.58
		1,1,1 Trichloroethane	3.2	1.27
		Trichloroethylene	2.3	0.92
		Xylene	4.9	1.96

Source	Description	Pollutant	lb/hr	tpy
SN-41B	Adhesive Barrier Coating Operations	1, 2–Butylene Oxide	0.29	
		Ethyl Benzene	1.44	
		Formaldehyde	0.03	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	

SN-42 - Spray Liner Machine

Source Description

In Building 2-SH-15, a liner material is mechanically applied to the adhesive surface of rocket motor casings. Various solvents are used to flush the equipment.

Specific Conditions

52. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Source	Description	tpy
SN-42	Spray Liner Machine	VOC	8.5	1.1

SN-43 - Spray Paint Booth

Source Description

This paint booth is located in Building D-33. This booth is used to surface coat various rocket components.

Specific Conditions

53. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **9**, and **11** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-43	Spray Paint Booth	PM_{10}	0.1	0.1
		VOC	22.5	8.5
		Lead	0.01	0.01

54. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **9**, and **11** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-43	Spray Paint Booth	PM	0.1	0.1
		Acetone	5.6	2.8
		Chromium	0.01	0.01
		Cumene	0.7	0.4
		Ethyl Acrylate	2.1	1.1
		Ethyl Benzene	1.4	0.7
		Methanol	2.8	1.4
		Methyl Isobutyl Ketone	8.4	4.2
		Toluene	11.9	6.0
		Xylene	8.4	4.2

SN-44A, 44B, 44C, 44D - Floor Operations

Source Description

These sources consist of various touch-up painting, bonding, labeling, and cleaning activities located throughout the facility. SN-44A is in Building #33, SN-44B is in Building #48, SN-44C is in Building M-2, and SN-44D is in Building M-85. All of these activities are done by hand. This source is not subject to 40 C.F.R 63, Subpart T because these provisions do not regulate the use of halogenated solvents in hand-wipe cleaning activities.

Specific Conditions

55. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **9**, **11**, **13**, **15**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-44A	Floor Operations	PM_{10} VOC Lead	0.1 30.3 0.01	0.1 39.3 0.01
SN-44B		PM_{10} VOC Lead	0.1 30.3 0.01	
SN-44C		PM_{10} VOC Lead	0.1 30.3 0.01	
SN-44D		PM_{10} VOC Lead	0.1 30.3 0.01	

56. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **9**, **11**, **13**, **15**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-44A SN-44B SN-44C SN-44D	Floor Operations	PM Acetone 1,2 Butylene Oxide Chromium Compounds Cumene Diethylene Glycol Monobutyl Ether Acetate	-	0.1 17.2 0.2 0.02 0.7 1.5

		Diethylene Glycol Monoethyl Ether Acetate		2.9
		Ethyl Acrylate		2.1
		Ethyl Benzene		2.9
		Glycol Ethers		6.4
		Methanol		11.6
		Methylene Chloride		16.7
		Methyl Isobutyl Ketone		14.1
		Phenol		3.3
		Toluene		24.2
		1,1,1 Trichloroethane		24.4
		Xylene		12.0
SN-44A		PM	0.1	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate	1.8	
		Diethylene Glycol Monoethyl Ether Acetate	3.6	
		Ethyl Acrylate	1.1	
		Ethyl Benzene	2.5	
		Glycol Ethers	8.0	
		Methanol	7.5	
		Methylene Chloride	12.6	
		Methyl Isobutyl Ketone	11.3	
		Phenol	4.1	
		Toluene	15.8	
		1,1,1 Trichloroethane	22.3	
		Xylene	8.7	
SN-44B		PM	0.1	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate	1.8	
		Diethylene Glycol Monoethyl Ether Acetate	3.6	
		Ethyl Acrylate	1.1	
		Ethyl Benzene	2.5	
		Glycol Ethers	8.0	
		Methanol	7.5	
		Methylene Chloride	12.6	
		Methyl Isobutyl Ketone	11.3	
		Phenol	4.1	
		Toluene	15.8	
		1,1,1 Trichloroethane	22.3	
		Xylene	8.7	

SN-44C		PM	0.1	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate	1.8	
		Diethylene Glycol Monoethyl Ether Acetate	3.6	
		Ethyl Acrylate	1.1	
		Ethyl Benzene	2.5	
		Glycol Ethers	8.0	
		Methanol	7.5	
		Methylene Chloride	12.6	
		Methyl Isobutyl Ketone	11.3	
		Phenol	4.1	
		Toluene	15.8	
		1,1,1 Trichloroethane	22.3	
		Xylene	8.7	
SN-44D		PM	0.1	
		Acetone	12.4	
		1,2 Butylene Oxide	0.1	
		Chromium Compounds	0.01	
		Cumene	0.4	
		Diethylene Glycol Monobutyl Ether Acetate	1.8	
		Diethylene Glycol Monoethyl Ether Acetate	3.6	
		Ethyl Acrylate	1.1	
		Ethyl Benzene	2.5	
		Glycol Ethers	8.0	
		Methanol	7.5	
		Methylene Chloride	12.6	
		Methyl Isobutyl Ketone	11.3	
		Phenol	4.1	
		Toluene	15.8	
		1,1,1 Trichloroethane	22.3	
		Xylene	8.7	

SN-47 - Foam-Blowing Operations

Source Description

Various polyurethane foam components are made in Building 2-SH-4. The foam is produced using a two-part formulation combined in a 50-50 ratio. The foam is then forced into metal molds where it is cured. The mixer is purged with various solvents when the parts are changed.

Specific Conditions

57. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 59, Plantwide Condition **7**, and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-47	Foam-Blowing Operations	VOC	8.5	1.3

58. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 59, Plantwide Condition **7**, and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-47	Foam-Blowing Operations	HFC-245fa	0.7	2.5

59. The permittee shall not exceed 40,000 pounds of polyurethane resin parts A & B in SN-47 during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

60. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 59. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-48A and B - Phenolic Molding Operations

Source Description

Phenolic Molding Operations are located in Buildings 2-SH-3, SN-48A, and 2-SH-14, SN-48B. These operations are used to make exit cone inlets, throat insulations, forward and aft igniter mounts, retention rings, launch motor insulators, rupture disks, nozzle bodies, and various other molded parts at this facility. The resin materials are received in powder form. During parts production the powder is first placed in metal molds, which are inserted in press machines. Electric heat and pressure are then applied to melt the phenolic resin.

Specific Conditions

61. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 63 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-48A	Phenolic Molding Operations	VOC	0.1	0.2
SN-48B		VOC	0.1	

62. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 63 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-48A	Phenolic Molding Operations	Ammonia Formaldehyde Phenol	0.01 0.01 0.06	0.02 0.01 0.14
SN-48B		Ammonia Formaldehyde Phenol	0.01 0.01 0.06	

63. The permittee shall not process more than 500,000 pounds of phenolic resin in SN-48 and SN-49 combined during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E,]

64. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 63. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7.

Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-49 - Hockey Puck Manufacturing

Source Description

Certain rocket components manufactured by the facility are phenolic billets. These parts, commonly called "hockey pucks," are produced using a press machine at Building 2-SH-3. Phenolic resin molding compounds are also used in this operation. The powdered resin material is conveyed into a bin, and then loaded into a consolidation billet press. Heat and pressure are applied to form the "hockey pucks."

Specific Conditions

65. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 63 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-49	Hockey Puck Manufacturing	VOC	0.1	0.2

66. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 63 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-49	Hockey Puck Manufacturing	Ammonia	0.01	0.02
		Formaldehyde	0.01	0.01
		Phenol	0.06	0.14

SN-52A and B - Sling Liner Machines

Source Description

Two sling liner machines are operated at Building 2-SH-15, SN-52A, and Building M-8, SN-52B, to apply a liner to the inside of rocket motor cases. The liner is a solvent-free, carbon-filled polyurethane rubber. The rubber solution is pumped through a rotating head which slings the liner onto the interior of the motor case. The lined components are then placed in a curing oven. Once cured, the rocket motor cases are subjected to additional processing. The machines are cleaned using various solvents.

Specific Conditions

67. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-52A	Sling Liner Machines	VOC	8.5	2.2
SN-52B		VOC	8.5	

SN-56 - MK 104 Sample Collection

Source Description

Material samples from the nozzle assembly for the MK 104 missile are collected as part of the manufacturing process. These samples are obtained in a trailer next to Building 2-SH-4 for physical testing in the Chemistry Lab in Building 17. Sample collection consists of cutting and grinding the nozzle assembly in order to obtain the desired materials. The grinding operations, which generate particulate emissions, are performed under a vent hood.

Specific Conditions

68. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-56	MK 104 Sample Collection	PM_{10}	0.1	0.1

69. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-56	MK 104 Sample Collection	PM	0.1	0.1

SN-63 - Nitramines and Explosives Dryer

Source Description

Various nitramines and explosive compounds are used in Aerojet's production operations. When received from the vendor, these materials are wetted with isopropyl alcohol which acts as a stabilizer. A rotary vacuum dryer is operated at Building C-58 in order to dry the energetic materials prior to their use. The explosive compounds are received in plastic bags and are manually opened. The materials are placed in the dryer and the building is secured. The dryer is then heated using a hot-water jacket, while a vacuum pump simultaneously exhausts the dryer chamber. During operation, the dryer chamber is periodically rotated to ensure thorough drying of its contents.

Specific Conditions

70. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-63	Nitramines and Explosives Dryer	VOC	18.0	0.5

SN-67A through R - Grit Blast Machines

Source Description

The grit blast machines are used to prepare the interior and/or exterior surfaces of rocket motor cases and other components for the subsequent application of various surface coatings. The machines use sand, coal slag, and/or steel grit as the abrasive materials.

Source Number	Building	Description	Control Equipment
SN-67A	2-SH-2	Blasting Cabinet	Bag Filter
SN-67B	2-SH-2	Blasting Cabinet	Bag Filter
SN-67C	2-SH-4	Hand-Blasting Cabinet	Shop Vacuum
SN-67D	2-SH-4	Hand-Blasting Cabinet	Cyclone
SN-67E	2-SH-14	Large Clamshell Unit	Cyclone and Baghouse
SN-67F	2-SH-14	Small Clamshell Unit	Cyclone
SN-67G	2-SH-14	Hand-Blasting Cabinet	Shop Vacuum
SN-67H	2-SH-14	Hand-Blasting Cabinet	Shop Vacuum
SN-67I	2-SH-14	Hand-Blasting Cabinet	Cyclone
SN-67J	33	Large Blasting Machine	Baghouse
SN-67K	36	Hand-Blasting Cabinet	Bag Filter
SN-67L	M-2	Grit Blasting Machine	Shop Vacuum
SN-67M	M-2	Sand Blasting Machine	Bag Filter
SN-67N	M-2	Grit Blasting Machine	Dust Collector
SN-67P	M-82	Large Blasting Machine	Baghouse
SN-67Q	M-85	Hand-Blasting Cabinet	Baghouse
SN-67R	M-85	Hand-Blasting Cabinet	Baghouse

Specific Conditions

71. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 75 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Pollutant	lb/hr	tpy
67A through R	PM_{10}	-	0.4
67A	PM_{10}	0.1	-
67B	PM_{10}	0.1	-
67C	PM_{10}	0.1	-
67D	PM_{10}	0.1	-
67E	PM_{10}	0.3	-

67F	PM_{10}	0.1	-
67G	PM_{10}	0.1	-
67H	PM_{10}	0.1	-
67I	PM_{10}	0.1	-
67J	PM_{10}	0.1	-
67K	PM_{10}	0.3	-
67L, 67M	PM_{10}	0.2	-
67N	PM_{10}	0.3	-
67P	PM_{10}	0.3	-
67Q	PM_{10}	0.3	-
67R	PM_{10}	0.3	-

72. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 75 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Pollutant	lb/hr	tpy
67A through R	PM	-	0.4
67A	PM	0.1	-
67B	PM	0.1	-
67C	PM	0.1	-
67D	PM	0.1	-
67E	PM	0.3	-
67F	PM	0.1	-
67G	PM	0.1	-
67H	PM	0.1	-
67I	PM	0.1	-
67J	PM	0.1	-

67K	PM	0.3	-
67L 67M	PM	0.3	-
67N	PM	0.3	-
67P	PM	0.3	-
67Q	PM	0.3	-
67R	PM	0.3	-

73. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
67A through R	5%	Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

74. The permittee shall conduct weekly observations of the opacity from each building or stack for sources SN-67A through R and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

75. The permittee shall not exceed 300,000 pounds of blasting media in SN-67A through R during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

76. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 75. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-71 - Gasoline Storage Tank

Source Description

The facility operates one above ground tank for gasoline storage. The vessel is located near Building 1. The storage tank has a capacity of 4,000 gallons.

Specific Conditions

77. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 79 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-71	Gasoline Storage Tank	VOC	44.1	0.9

78. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition79 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-71	Gasoline Storage Tank	Benzene	2.6	0.1
		Ethyl Benzene	1.6	0.1
		Hexane	2.0	0.1
		Naphthalene	1.4	0.1
		Toluene	12.8	0.3
		Xylene	7.7	0.2

79. The permittee shall not exceed 50,000 gallons of gasoline in SN-71 during any consecutive twelve month period. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

80. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 79. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-72 - Diesel Fuel Storage Tanks

Source Description

The facility operates two above-ground tanks for the storage of diesel fuel. The vessels are located near Building 1. The tanks have a capacity of 500 gallons each.

Specific Conditions

81. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 82 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-72	Diesel Storage Tank	VOC	0.1	0.1

82. The permittee shall not exceed 40,000 gallons of diesel fuel in SN-72 during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

83. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 82. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-73 - Nitramines and Explosives Grinder

Source Description

Various nitramines and explosive compounds are conveyed to Building C-57 for particle-size reduction. A grinder unit is operated for this purpose. Once prepared, the ground energetic materials are utilized for the production of propellants and/or explosives.

Specific Conditions

84. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-73	Nitramines and Explosives Grinder	PM_{10}	0.1	0.1

85. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-73	Nitramines and Explosives Grinder	PM	0.1	0.1

86. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this condition will be demonstrated by the permittee's established standard operating procedures for processing energetic materials.

SN	Limit	Regulatory Citation
73	5%	Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

SN-74 - Solvent Wipe Room Building M-2

Source Description

The facility operates a solvent wipe room at Building M-2. The facility consists of an enclosed bay equipped with a vent hood. The wipe room is used for the hand-wipe degreasing of the rocket motor cases before and after installation of the case rubber. Several solvents are used as the cleaning agents and are manually applied using spray bottles and/or wiping cloths. This source is not subject to 40 C.F.R 63, Subpart T because it is a hand-wipe cleaning activity.

Specific Conditions

87. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-74	Solvent Wipe Room Building M-2	VOC	8.5	2.2

SN-75 - Sling Liner Machine Building M-2

Source Description

Various rocket motor cases are lined with specially-formulated in Building M-2. The coating is fed through a traveling wand to a rotating applicator head. The spinning head slings the liner onto the inside of the motor case. During liner application, the wand is slowly drawn through the case to provide a uniform coating.

Specific Conditions

88. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-75	Sling Liner Machine Building M-2	VOC	8.5	1.1

SN-76A and 76B - Adhesive Primer Operations

Source Description

Adhesive Primer Operations are located in Building M-8, SN-76B and Building M-2, SN-76A. Interior surfaces of clean, dry rocket motor cases are coated with an adhesive primer. The primer is applied using spray nozzles mounted on an automated, traveling wand.

Specific Conditions

89. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-76A	Adhesive Primer Operations	PM_{10}	0.1	0.1
		VOC	14.3	3.0
		Lead	0.01	0.01
SN-76B		PM_{10}	0.1	
		VOC	14.3	
		Lead	0.01	

90. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-76A	Adhesive Primer Operations	PM	0.1	0.1
		1,2 Butylene Oxide	0.3	0.2
		Ethyl Benzene	1.5	0.6
		Formaldehyde	0.1	0.1
		Methanol	1.2	0.5
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.4
		Toluene	1.5	0.6
		1,1,1 Trichloroethane	3.2	1.3
		Trichloroethylene	2.3	1.0
		Xylene	4.9	2.0

Source	Description	Pollutant	lb/hr	tpy
SN-76B		PM	0.1	
		1,2 Butylene Oxide	0.3	
		Ethyl Benzene	1.5	
		Formaldehyde	0.1	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	

SN-77A and 77B - Adhesive Operations

Source Description

Following the application of the adhesive primer, adhesive is applied to the interior surfaces of the rocket motor cases. Adhesive Operations, SN-77A, is located in Building M-8 and SN-77B is located in Building M-2. The adhesive is applied by spray nozzles mounted on an automated, traveling wand. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. Plantwide Condition **19** lists available adhesive VOC/HAP compositions.

Specific Conditions

91. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-77A	Adhesive Operations	PM_{10}	0.1	0.1
		VOC	14.3	3.0
		Lead	0.01	0.01
SN-77B		PM_{10}	0.1	
		VOC	14.3	
		Lead	0.01	

92. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-77A	Adhesive Operations	PM	0.1	0.1
		1,2 Butylene Oxide	0.3	0.2
		Ethyl Benzene	1.5	0.6
		Formaldehyde	0.1	0.1
		Methanol	1.2	0.5
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.4
		Toluene	1.5	0.6
		1,1,1 Trichloroethane	3.2	1.3
		Trichloroethylene	2.3	1.0
		Xylene	4.9	2.0

Source	Description	Pollutant	lb/hr	tpy
SN-77B	Adhesive Operations	PM	0.1	
		1,2 Butylene Oxide	0.3	
		Ethyl Benzene	1.5	
		Formaldehyde	0.1	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	

SN-78A and 78B - Adhesive Barrier Coating Operations

Source Description

Following the adhesive application, a two-part adhesive barrier coating is applied to the interior surfaces of the rocket motor cases. This operation is performed in Buildings M-8, SN-78A and M-2, SN-78B. The barrier coating is applied by spray nozzles mounted on an automated, traveling wand. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. Plantwide Condition **19** lists available adhesive VOC/HAP compositions.

Specific Conditions

93. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-78A	Adhesive Barrier Coating Operations	PM_{10} VOC Lead	0.1 14.3 0.01	0.1 3.0 0.01
SN-78B		PM_{10} VOC Lead	0.1 14.3 0.01	

94. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-78A	Adhesive Barrier Coating Operations	PM	0.1	0.1
		1,2 Butylene Oxide	0.3	0.2
		Ethyl Benzene	1.5	0.6
		Formaldehyde	0.1	0.1
		Methanol	1.2	0.5
		Methyl Isobutyl Ketone	3.8	1.5
		Tetrachloroethylene	0.9	0.4
		Toluene	1.5	0.6
		1,1,1 Trichloroethane	3.2	1.3
		Trichloroethylene	2.3	1.0
		Xylene	4.9	2.0

Source	Description	Pollutant	lb/hr	tpy
SN-78B	Adhesive Barrier Coating Operations	PM	0.1	
		1,2 Butylene Oxide	0.3	
		Ethyl Benzene	1.5	
		Formaldehyde	0.1	
		Methanol	1.2	
		Methyl Isobutyl Ketone	3.8	
		Tetrachloroethylene	0.9	
		Toluene	1.5	
		1,1,1 Trichloroethane	3.2	
		Trichloroethylene	2.3	
		Xylene	4.9	

SN-80 - Warhead Coating Operation

Source Description

The inside surface of the warhead cases are coated with a thin film of a Teflon-based release-agent. A propellant mixture is then cast (i.e., loaded) into the prepared cases in Building C-50. The units are subsequently cured in a steam or hot water-heated oven in Building C-61. Plantwide Condition **7** lists available solvents and VOC/HAP compositions and Plantwide Condition 11 lists available paint VOC/HAP compositions.

Specific Conditions

95. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, 9, 11 and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-80	Warhead Coating Operation	VOC	1.0	0.3

96. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Conditions **7**, **17**, and **19** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-80	Warhead Coating Operation	CFC-113	6.6	2.0

SN-81 - Diesel-Powered Pump at Rocket Motor Case Washout Facility

Source Description

Solid propellant is removed from off-specification/ unusable rocket motor cases so that the metal cases can be reused. The propellant is extracted using a high-pressure spray of water. The pump for the "hydrolance" machine is powered by a diesel-fired internal combustion engine. This pump has a maximum power rating of 300 hp and consumes 15 gallons of fuel per hour.

Specific Conditions

97. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 101 and equipment limitations. [Reg.19.501 et seq. Regulation 19 and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-81	Diesel-Powered Pump	PM_{10}	0.7	2.9
		SO_2	0.7	2.7
		VOC	0.8	3.3
		CO	2.0	8.7
		NO_x	9.2	40.0

98. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 101 and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-81	Diesel-Powered Pump	PM	0.7	2.9
		Acetaldehyde	0.1	0.1
		Acrolein	0.1	0.1
		Benzene	0.1	0.1
		1,3 Butadiene	0.1	0.1
		Formaldehyde	0.1	0.1
		PAHs	0.1	0.1
		Toluene	0.1	0.1
		Xylene	0.1	0.1

99. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation

81	20%	Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

100. The permittee shall conduct daily observations of the opacity from source SN-81 on those days when the equipment is in operation and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

101. The permittee shall not use in excess of 131,400 gallons of diesel fuel in SN-81 during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

102. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 101. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

103. The permittee shall for SN-81 maintain emissions less than 230 ppm at 15% O_2 on a dry basis. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

104. The permittee shall test SN-81 initially for CO in accordance with 40 C.F.R 63.6612, 63.6620, 63.7(a)(2) and General Provision 7. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

105. The permittee shall for SN-81 change the oil and filter every 500 hours or annually whichever comes first, Inspect air cleaner every 1,000 hours or annually whichever comes first and replace if necessary, inspect all hoses and belts every 500 hours of operation or annually whichever comes first and replace as necessary. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

106. The permittee shall install a non-resettable hour meter on SN-81 if one is not already installed. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

107. The permittee shall for SN-81 operate the engine according to the manufacturer's emission related written instructions. The engine must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

108. The permittee shall for SN-81 minimize engine's time spent at idle during start up and minimize the engine's start-up time to a period needed for safe loading of the engine, not to exceed 30 minutes. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

109. The operating limitations and emission limits of 40 C.F.R 63 Subpart ZZZZ apply to SN-81 at all times. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

110. The permittee must maintain records of all required maintenance on SN-81 and records of occurrence and duration of each malfunction. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

111. The permittee must maintain records required in 40 C.F.R 63.6655 and 63.6660 as required for SN-81. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

112. The permittee must submit a semiannual compliance report for SN-81 in accordance with 40 C.F.R 63.6650. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

SN-84 - Warhead Manufacturing Operations

Source Description

The facility makes a variety of warheads and ordnance at Building M-11. A barrier coating (asphalt or wax) is first applied to the inside of the prepared metal cases. The components are then filled with explosives. The units are subsequently cured in a steam-heated oven. The warheads and ordnance are then moved to other buildings for finishing and final assembly. Two propane-fired "melter/applicator machines" are used to apply the barrier coatings. A small natural gas-fired boiler provides steam and hot water for the production equipment.

Specific Conditions

113. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions 116 and 118, equipment limitations, and by burning only natural gas and propane. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-84	Warhead Manufacturing Operations	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 10.1 0.3 0.4	0.2 0.1 1.7 1.3 1.7

114. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by equipment limitations and by burning only natural gas and propane. [Reg.18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-84	Warhead Manufacturing Operations	PM HAPs	0.1 0.01	0.2 0.01

115. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance will be demonstrated by burning only natural gas and propane.

SN	Limit	Regulatory Citation
84	5%	Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311

116. The permittee shall not use in excess of 15,000 pounds of asphalt coating in SN-84 during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

117. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 116. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

118. The permittee shall not use in excess of 15,000 pounds of wax coatings in SN-84 during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

119. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 118. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

SN-85 - Motor Case Cleaning Operations

Source Description

Metal rocket motor cases are cleaned at Building M-8 to prepare them for adhesive bonding, surface coating, and/or lining. Residual oil and grease are removed by hand-wipe cleaning. Certain motor cases are cleaned using a special flushing-cleaning apparatus. Plantwide Condition **7** lists available solvents and VOC/HAP compositions. This source is not subject to 40 C.F.R 63, Subpart T because these provisions do not regulate the use of halogenated solvents in hand-wipe cleaning activities. In addition, the motor case flush-cleaning apparatus is not subject to Subpart T because halogenated solvents are not used in this equipment.

Specific Conditions

120. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

Source	Description	Pollutant	lb/hr	tpy
SN-85	Motor Case Cleaning Operations	VOC	17.0	2.2

121. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Plantwide Condition **7** and equipment limitations. [Reg.18.801 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Source	Description	Pollutant	lb/hr	tpy
SN-85	Motor Case Cleaning Operations	Methylene Chloride 1,1,1 Trichloroethane	11.0 10.9	2.8 2.8

SN-86, SN-87, SN-89, SN-90, SN-91, SN-92, SN-93, and SN-95 - Emergency Power Generators

Source Description

SN-86 is a propane-fired emergency power generator located at the Guard House. The engine is rated at 18 hp and the generator is rated at 10 kW.

SN-87 is a natural gas-fired emergency generator located at Building 61. This engine is rated at 225 hp and the generator is rated at 150 kW.

SN-89 is a natural gas-fired emergency generator located at Building M-142. This engine is rated at 193 hp and the generator is rated at 125 kW.

SN-90 is a natural gas-fired emergency generator located at Building M-8. This engine is rated at 135 hp and the generator is rated at 100 kW.

SN-91 is a diesel-fired emergency generator located at Building 66. This engine is rated at 170 hp and the generator is rated at 100 kW.

SN-92 is a diesel-fired emergency generator located at Building M-2. This engine is rated at 535 hp and the generator is rated at 350 kW.

SN-93 is a diesel-fired emergency generator located at Building M-11. This engine is rated at 193 hp and the generator is rated at 125 kW.

SN-95 is a natural gas fired emergency generator located at building M-125. This engine is rated at 24 hp and the generator is rated at 18 kW.

Specific Conditions

122. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 125. [Regulation 19, Reg.19.501 et seq. and 40 C.F.R § 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-86	Emergency Power Generator (Guard House)	PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.7	0.2
		NO_x	0.4	0.1

SN-87	Emergency Power Generator (Building 61)	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 7.4 4.4	0.1 0.1 0.1 1.9 1.1
89	Emergency Power Generator Building M-142	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 5.9 3.5	0.1 0.1 0.1 1.5 0.9
90	Emergency Power Generator Building M-8	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 4.2 2.5	0.1 0.1 0.1 1.1 0.7
91	Emergency Power Generator Building 66	PM_{10} SO_2 VOC CO NO_x	0.7 0.7 0.8 2.1 9.8	0.2 0.2 0.2 0.6 2.5
92	Emergency Power Generator Building M-2	PM_{10} SO_2 VOC CO NO_x	1.2 1.1 1.3 3.5 15.9	0.3 0.3 0.4 0.9 4.0
93	Emergency Power Generator Building M-11	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 5.9 3.5	0.1 0.1 0.1 1.5 0.9
95	Emergency Power Generator M-125	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 24.1 0.4	0.1 0.1 0.1 6.1 0.1

123. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 125. [Regulation 18, Reg.18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy

SN-86	Emergency Power Generator (Guard House)	PM HAPs	0.1 0.01	0.1 0.01
SN-87	Emergency Power Generator (Building 61)	PM HAPs	0.1 0.01	0.1 0.01
89	Emergency Power Generator Building M-142	PM HAPs	0.1 0.01	0.1 0.01
90	Emergency Power Generator Building M-8	PM HAPs	0.1 0.01	0.1 0.01
91	Emergency Power Generator Building 66	PM HAPs	0.7 0.08	0.2 0.08
92	Emergency Power Generator Building M-2	PM HAPs	1.2 0.08	0.3 0.08
93	Emergency Power Generator Building M-11	PM HAPs	0.1 0.03	0.1 0.03
95	Emergency Power Generator - M-125	PM HAPs	0.1 0.01	0.1 0.01

124. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance will be demonstrated by burning only natural gas and propane.

SN	Limit	Regulatory Citation
SN-86 SN-87 SN-89 SN-90 SN-95	5%	Reg.18.501 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311
SN-91 SN-92 SN-93	20%	Reg.19.503 and 40 C.F.R § 52, Subpart E

125. The permittee shall not operate the Emergency Power Generators, SN-86, SN-87, SN-89 and SN-95 more than 500 hours each per consecutive 12 month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

126. The permittee shall maintain monthly records of the hours of operation of SN-86, SN-87, SN-89 and SN-95. These records shall be kept in accordance with General Provision 7, kept on site and made available to Department personnel upon request. Records shall be updated by the fifteenth day of the month following the month of the records. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

127. The Emergency Power Generators, SN-86, SN-87, SN-89 and SN-95, are subject to and shall comply with the provisions of NSPS Subpart JJJJ. SN-86, SN-87, SN-89 and SN-95are also subject to 40 C.F.R Part 63 Subpart ZZZZ. Compliance with Subpart ZZZZ is demonstrated by complying with NSPS Subpart JJJJ. [Reg.19.304 of Regulation 19, 40 C.F.R Part 60 Subpart JJJJ, and 40 C.F.R Part 63 Subpart ZZZZ]

128. SN-86, SN-87, SN-89 and SN-95 shall comply with the emission standards of 60.4231(a). The permittee must operate SN-86, SN-87, SN-89 and SN-95 so that they comply with those standards over the entire life of the engine. [Reg.19.304 and 40 C.F.R §60.4233(a) and §60.4234]

129. If the Emergency Generators, SN-86, SN-87, SN-89 and SN-95, do not meet the standards applicable to non-emergency engines, the permittee must install a non-resettable hour meter upon start-up of the engines. [Reg.19.304 and 40 C.F.R §60.4237(c)]

130. If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance. If the permittee does not operate and maintain SN-86, SN-87, SN-89 and SN-95according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and you must demonstrate compliance by keeping a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [Reg.19.304 and 40 C.F.R §60.4243(a)]

131. The permittee may operate the Emergency Generators, SN-86, SN-87, SN-89 and SN-95 for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no NSPS required time limit on the use of emergency stationary ICE in emergency situations. The 500 hour of operation limit of the permit still applies. , SN-86, SN-87, SN-89 and SN-95 may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any

operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year except as allowed in this paragraph is prohibited. [Reg.19.304 and 40 C.F.R §60.4243(d)]

132. The permittee shall for SN-90 change the oil and filter every 500 hours or annually whichever comes first, Inspect spark plugs every 1,000 hours or annually whichever comes first and replace if necessary, inspect all hoses and belts every 500 hours of operation or annually whichever comes first and replace as necessary. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

133. The permittee shall for SN-91 and 93 change the oil and filter every 500 hours or annually whichever comes first, Inspect air cleaner every 1,000 hours or annually whichever comes first and replace if necessary, inspect all hoses and belts every 500 hours of operation or annually whichever comes first and replace as necessary. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

134. The permittee shall install a non-resettable hour meter on SN-90, 91, and 93 if one is not already installed. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

135. The permittee shall for SN-90, 91, and 93 operate the engine according to the manufacturer's emission related written instructions. The engine must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

136. The permittee shall for SN-90, 91, and 93, minimize engine's time spent at idle during start up and minimize the engine's start-up time to a period needed for safe loading of the engine, not to exceed 30 minutes. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

137. The permittee not operate, SN-90, 91, and 93, more than 100 hours per calendar year for the purposes of maintenance and readiness checks. The permittee may operate the engine up to 50 hours per calendar year in non-emergency situations. Those 50 hours count toward the 100 hours for maintenance and readiness checks. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

138. The operating limitations of 40 C.F.R 63 Subpart ZZZZ apply to SN-90, 91, 93 at all times. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

139. The permittee must maintain records of all required maintenance on SN-90, 91, and 93 and records of occurrence and duration of each malfunction. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

140. The permittee must maintain records of the hours of operation of SN-90, 91, and 93 document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation. [Reg.19.304 and 40 C.F.R Part 63, Subpart ZZZZ]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Aerojet Rocketdyne, Inc. will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]

3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

4. The permittee must provide:

    a. Sampling ports adequate for applicable test methods;
    b. Safe sampling platforms;
    c. Safe access to sampling platforms; and
    d. Utilities for sampling and testing equipment.

    [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Reg.26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

7. The permittee shall not use in excess of the solvent throughput rates or exceed the VOC and HAP content limits listed in the following table at sources SN-07, SN-11, SN-12, SN-13, SN-19, SN-20, SN-22, SN-24, SN-28, SN-36 through SN-44, SN-47, SN-52, SN-62 through SN-63, SN-74 through SN-78, SN-80, and SN-85. [Reg.18.1004 of Regulation 18, Reg.19.705 of Regulation 19, 40 C.F.R Part 70.6, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Solvent	Total lb/year	VOC Content
Generic Solvent (All VOC-based, non-HAP solvents)	112,600	8.50 lb/gal
Acetone	14,400	Non-VOC
Methanol	13,300	100% VOC, HAP
Methylene Chloride	171,100	Non-VOC, HAP
N-Propyl Bromide	66,000	VOC
Toluene	14,500	100% VOC, HAP
1,1,1 Trichloroethane	27,100	Non-VOC, HAP

8. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the throughput and formulation limits set in Plantwide Condition 7. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.18.1004 of Regulation 18, Reg.19.705 of Regulation 19, 40 C.F.R § 52 Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

9. The permittee shall not use in excess of 56,000 pounds of surface coating materials (primers, paints, catalysts, thinners, and related compounds) in SN-12, SN-24, SN-43, SN-44, SN-80 or SN-83 combined during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

10. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Specific Condition 9. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

11. The surface coating compounds processed at sources SN-12, SN-24, SN-43, SN-44, and SN-80, shall not exceed the VOC and HAP content listed in the following table. The maximum density of the paint is 14.00 pounds per gallon. [Reg.18.1004 of Regulation

18, Reg.19.705 of Regulation 19, 40 C.F.R Part 70.6, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Component	Weight Percent
VOC	100%
Acetone*	40.0%
Chromium Compounds	11.0%
Cumene	5%
Ethyl Acrylate	15.0%
Ethyl Benzene	10.0%
Lead Compounds	0.8%
Methanol	20%
Methyl Isobutyl Ketone	60.0%
Toluene	85.0%
Xylene	60.0%

* Not a VOC

12. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the formulation limits set in Plantwide Condition 11. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.18.1004 of Regulation 18, Reg.19.705 of Regulation 19, 40 C.F.R § 52 Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

13. The permittee shall not use in excess of 28,400 pounds of miscellaneous materials (inks, spray paints, mold release agents, contact adhesives, sealants, and related compounds) in SN-44A - D during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

14. The permittee shall maintain records which demonstrate compliance with the throughput limit set in Plantwide Condition 13. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

15. The miscellaneous materials processed at SN-44A-D shall not exceed the VOC and HAP content limits listed in the following table. The maximum density of the miscellaneous materials is 14.20 pounds per gallon. [Reg.18.1004 of Regulation 18, Reg.19.705 of Regulation 19, 40 C.F.R Part 70.6, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Component	Weight Percent
VOC	100%
Acetone	35.0%
1, 2, butylene oxide	5%
Ethyl Benzene	10.0%
Glycol Ethers	45.0%
Methanol	15.0%
Methylene Chloride	40.0%
Methyl Isobutyl Ketone	40.0%
Phenol	23.0%
Toluene	35.0%
1,1,1 Trichloroethane	95.0%
Xylene	25.0%
DGMBEA	10%
DGMEEA	5%

16. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the formulation limits set in Plantwide Condition 15. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.18.1004 of Regulation 18, Reg.19.705 of Regulation 19, 40 C.F.R § 52 Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

17. The permittee shall not use in excess of 27,600 pounds of adhesives, adhesive primers, adhesive catalysts, barrier coatings, and related compounds in SN-39, SN-40, SN-41, SN-76, SN-77 and/or SN-78 combined during any consecutive twelve month period. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

18. The permittee shall maintain records which demonstrate compliance with the throughput limits set in Plantwide Condition 17. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

19. The adhesives, adhesive primers, adhesive catalysts, barrier coatings, and related compounds processed at sources SN-39A-B, SN-40, SN-41, SN-76, SN-77 and SN-78 shall not exceed the VOC and HAP content limits listed in the following table. The maximum density of the adhesive products is 11.50 pounds per gallon. [Reg.19.501 et seq. and 40 C.F.R § 52 Subpart E]

Component	Weight Percent
VOC	100%
Ethyl Benzene	25.0%
Formaldehyde	0.5%
Lead Compounds	5.0%
Methanol	20.0%
Methyl Isobutyl Ketone	65.0%
Tetrachloroethylene	15.0%
Toluene	25.0%
1,1,1 Trichloroethane*	55.0%
Trichloroethylene	40.0%
Xylene	85.0%
1, 3, Butylene Oxide	5%

* Not a VOC

20. The permittee shall maintain records and MSDS sheets which demonstrate compliance with the formulation limits set in Plantwide Condition 19. These records may be used by the Department for enforcement purposes. Records shall be updated on a monthly basis, shall be kept on site, and shall be provided to the Department in accordance with General Condition 7. [Reg.19.705 and 40 C.F.R § 52 Subpart E]

21. The permittee shall be allowed to trade emissions within the permitted facility without requiring a permit modification. The permittee shall provide written notice to the Department a minimum of seven (7) days prior to any such emissions trade. This notice shall provide the following information: [Reg.26.803 and Reg.26.804 of Regulation 26]

    1. The date when the proposed change(s) will occur,
    2. A description of the change(s),
    3. The pollutants currently emitted which are subject to the emissions trade,
    4. Any associated change(s) in facility emissions, and
    5. The permit requirements with which the source will comply.

    The notice shall also refer to the emissions trading provisions of the State Implementation Plan (SIP) with which the source will comply, and that provide for the emissions trade. Absent any notification to the contrary, after seven days, the facility may proceed with the emissions trade without receiving prior written approval from the Air Division.

22. The concentrations of HAPS and/or other regulated air contaminants in the chemicals processed on-site shall not exceed the weight-percent values specified in Plantwide Conditions 7, 11, 15, and 19. The substitution of alternative brands or formulations of cleaning solvents, surface coating materials, adhesives and/or other process chemicals, which contain different components in amounts equal to or less than the air contaminant and HAP contents described therein, is acceptable, provided that the American Conference of Governmental Industrial Hygienist (ACGIH) Threshold Limit Values

(TLVs), as listed on the current MSDS or in the ACGIH handbook titled "Threshold Limits Values (TLVs) and Biological Exposure Indices (BEIs)" of the new components must be equal to or higher than the TLVs of the compounds for which the substitutions are being made. These substitutions can be performed on a one-to-one basis or on a multiple substitution basis. The substitution values shall be documented in accordance with Plantwide Condition 23 below. These records shall be maintained on-site and shall be made available to Department personnel upon request. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

23. The permittee shall maintain records which demonstrate compliance with the requirements for chemical substitutions specified in Plantwide Condition 22 above. These documents shall list the name of each HAP and/or other air contaminant contained in the material formulation, the weight-percent of each compound, and it's TLV. The records shall be updated once per year and any time when a different process chemical is utilized. The documents shall be maintained on-site and shall be made available to Department personnel upon request. [Reg.19.705 and 40 C.F.R § 52 Subpart E,]

40 C.F.R 63 Subpart GG (Aerospace) Requirements

24. All wastes that are determined to be hazardous wastes under the Resource Conservation and Recovery Act of 1976 (RCRA) as implemented by 40 C.F.R parts 260 and 261, and that are subject to RCRA requirements as implemented in 40 C.F.R parts 262 through 268, are exempt from the requirements of this subpart. [Reg.19.304 and 40 C.F.R §63.741(e)]

25. Any specialty coatings used by the facility are exempt from the requirements of this subpart. These specialty coatings must meet the definition set forth in 40 C.F.R §63.742. A listing of all specialty coatings used at this facility and the justification why it is exempt must be kept on site and made available to Department personnel upon request. [Reg.19.304 and 40 C.F.R §63.741(f)]

26. Any adhesives, adhesive primers, and sealants used by the facility are exempt from the requirements of this subpart. Subpart GG does not regulate research and development, quality control, and laboratory testing activities. The requirements of this subpart do not apply to primers, topcoats, cleaning solvents, and other process chemicals that contain HAP and VOC concentrations at less than 0.1 percent for carcinogens and 1.0 percent for non-carcinogens. [Reg.19.304 and 40 C.F.R §63.741(f)]

27. The requirements for primers and topcoats specified in §63.745 and §63.747 do not apply to the use of low-volume coatings in these categories for which the annual total of each separate formulation used at the facility does not exceed 50 gallons, and that the combined annual total of all such primers and topcoats used at the facility does not exceed 200 gallons. Primers and topcoats exempted under §63.741(f), §63.745(f)(3), and §63.745(g)(4) are not included in the 50 gallon and 200 gallon limits. [Reg.19.304 and 40 C.F.R §63.741(g)]

28. The permittee shall comply with the requirements of Plantwide Conditions 29, 30, and 31 unless the cleaning solvent used is identified in Table 1 of Subpart GG or contains HAP and VOC concentrations below the de minimis levels specified in §63.741(f). [Reg.19.304 and 40 C.F.R §63.744(a)]

29. The permittee shall place solvent-laden cloth, paper, or any other absorbent applicators used for cleaning aerospace vehicles or components in bags or other closed containers immediately after use. The permittee shall ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. The permittee shall use bags and containers of such design as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement. [Reg.19.304 and 40 C.F.R §63.744(a)(1)]

30. The permittee shall store fresh and spent cleaning solvents used in aerospace cleaning operations in closed containers. [Reg.19.304 and 40 C.F.R §63.744(a)(2)]

31. The permittee shall conduct the handling and transfer of cleaning solvents used in aerospace cleaning operations to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent cleaning solvents in such a manner that minimizes spills. [Reg.19.304 and 40 C.F.R §63.744(a)(3)]

32. The following cleaning operations are exempt from the requirements of §63.744(b): cleaning and surface activation prior to adhesive bonding. [Reg.19.304 and 40 C.F.R §63.744(e)]

33. Each owner or operator of a new or existing spray gun cleaning operation subject to this subpart in which spray guns are used for the application of coating or any other materials that require the spray guns to be cleaned shall use one or more of the techniques, or their equivalents, specified in the following methods. Spray gun cleaning operations using cleaning solvent solutions that contain HAP and VOC concentrations below the de minimis levels specified in §63.741(f) are exempt from the requirements of this condition. [Reg.19.304 and 40 C.F.R §63.744(c)]

    1. Non-atomized Cleaning: The permittee shall clean the spray gun by placing solvent in the pressure pot and forcing the solvent through the gun with the atomizing cap in place. The practice must be performed without the use of atomizing air pressure. The solvent must be directed into a waste container. The container must be kept closed when not in use. [Reg.19.304 and 40 C.F.R §63.744(c)(2)]

    2. Disassembled Gun Cleaning: The permittee shall clean the spray gun by disassembling the unit and cleaning it by hand in a vat. As an alternative, the spray gun may be cleaned by soaking the components in a vat. The solvent container must be kept closed except during use (when cleaning by hand) or when inserting or removing the

spray gun parts (if cleaning is accomplished by soaking). The vat must be kept closed when soaking the components. [Reg.19.304 and 40 C.F.R §63.744(c)(3)]

3. Atomized Cleaning: The permittee shall clean the spray gun by placing solvent in the pressure pot and forcing the solvent through the unit using air pressure. The resulting atomized spray must be directed into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions. [Reg.19.304 and 40 C.F.R §63.744(c)(4)]

34. Each owner or operator of a flush cleaning operation subject to this subpart (excluding those in which Table 1 or semi-aqueous cleaning solvents are used) shall empty the used cleaning solvent each time aerospace parts or assemblies, or components of a coating unit (with the exception of spray guns) are flush cleaned into an enclosed container or collection system that is kept closed or into a system with an equivalent emission control. The container or collection system shall be kept closed except when in use. [Reg.19.304 and 40 C.F.R §63.744(d)]

35. The permittee of each facility subject to this subpart that produces a waste that contains HAP shall conduct the handling and transfer of the waste to, or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills. [Reg.19.304 and 40 C.F.R §63.748, except as provided in §63.741(e)]

36. Each owner or operator of a new or existing cleaning operation subject to this subpart shall record the name, vapor pressure, and documentation showing the organic HAP constituents of each cleaning solvent used for affected cleaning operations at the facility. [Reg.19.304 and 40 C.F.R §63.752(b)(1),]

37. For each cleaning solvent used in hand-wipe cleaning operations that complies with the composition requirements specified in §63.744(b)(1) or for semi-aqueous cleaning solvents used for flush cleaning operations, the permittee shall record: [Reg.19.304 and 40 C.F.R §63.752(b)(2)]

    i. The name of each cleaning solvent used;

    ii. All data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements; and

    iii. Annual records of the volume of each solvent used, as determined from facility purchase records or usage records.

38. For each cleaning solvent used for the exempt hand-wipe cleaning operations specified in §63.744(e) that does not conform to the vapor pressure or composition requirements of §63.744(b), the permittee shall record: [Reg.19.304 and 40 C.F.R §63.752(b)(4)]

i. The identity and amount (in gallons) of each cleaning solvent used each month at each operation; and

ii. A list of the processes set forth in §63.744(e) to which the cleaning operation exemption applies.

39. The permittee of a cleaning operation subject to this subpart shall submit semiannual reports occurring every 6 months from the date of the notification of compliance status that identify the following: [Reg.19.304 and 40 C.F.R §63.753(b)(1)]

i. Any instance where a noncompliant cleaning solvent is used for a non-exempt hand-wipe cleaning operation;

ii. A list of any new cleaning solvents used for hand-wipe cleaning in the previous six months, and, as appropriate, their composite vapor pressure or a notification that they comply with the composition requirements specified in §63.744(b)(1);

iii. Any instance where a noncompliant spray gun cleaning method is used; and

iv. If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of Reg.26.304 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated August 1, 2011.

Description	Category
DOA Storage Tank (3,500 gallons)	Group A, Number 3
MLRS Igniter Assembly (SN-55) at Building M-85	Group A, Number 13
SN-60 Ingredient Preparation Room	Group A, Number 13
SN-66 Lathes at Building 2-SH-3	Group A, Number 13
SN-70 Polymer Tank Farm	Group A, Number 13
Parts Fabrication in Trailer at Building 2-SH-4	Group A, Number 13
Six-bladed Saw Chamfer & Drill Machine at Building M-8	Group A, Number 13
Composite Case Grinding Machine at Building M-8	Group A, Number 13
Water Heater Building #47	Group A, Number 1
Diesel Tank for Generator at M-2 Building	Group A, Number 3
Diesel Tank for Generator at Building 66	Group A, Number 3

SECTION VIII: GENERAL PROVISIONS

CERTIFICATE OF SERVICE

I, Pamela Owen, hereby certify that a copy of this permit has been mailed by first class mail to Aerojet Rocketdyne, Inc., P.O. Box 1036, Camden, AR, 71711-1036, on this 3rd day of August, 2015.

Pamela Owen

Pamela Owen, ASIII, Air Division