

HEXCEL - CASA GRANDE

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1. Introduction

This permit ~~renewal~~ **revision** pertains to an existing structural honeycomb manufacturing facility operated by Hexcel Corporation, a Delaware corporation. The SIC Codes are 2679 and 3469. The facility is located at 1214 West Gila Bend Highway 84, Casa Grande, Arizona upon a parcel also identified by Pinal County Assessor's Parcel # 503-46-021-D3. The source is situated in an area classified as "attainment" for all pollutants.

This revision 'R01 authorizes the installation and operation of a soil vapor extraction unit (SVE) to clean up a methyl ethyl ketone (MEK) spill discovered in 2010. The equipment used to remediate the spill will be a "Compact-THERM" thermal/catalytic oxidation system. The thermal system operates in thermal mode at high MEK concentrations (approximately 14,000 ppmV) and will be switched to catalytic mode during low concentrations (below 2,000 ppmV). The manufacturer of the system indicates that the lowest destruction efficiency is 99% during thermal mode and 98% during catalytic mode. Controlled potential VOC emissions have been estimated at 25.9 lb/day or 2.35 tons per year (based on 6 months of operation).

Section ~~10~~ 12 of this permit recites a list of emission-generating equipment covered under this permit.

Emissions consist principally of volatile organic compounds ("VOCs"), hazardous air pollutants ("HAPs"), and typical products-of-combustion.

The plant principally manufactures "honeycomb" and "structural cores" for aerospace and other industrial applications. The honeycomb material is typically used as a structural web, bonded between sheets to form a stiff, strong and light-weight structural panel. Honeycomb-type structures also have beneficial energy-absorbing characteristics and are used as impact absorbers on commercial aircraft as well as roadway maintenance trucks and other vehicles.

Hexcel manufactures both metallic and nonmetallic cores. Metallic foil surfaces undergo preliminary chemical cleaning and treatment to assure good adhesive bonding. Whatever the substrate, selectively applied adhesives bond successive layers of material together in a "sandwich." Mechanical fingers then expand the bonded sandwich to form the cellular core structure. Strong and reproducible bonding, using proprietary high-strength adhesives, provides high core strength and mechanical integrity. Thermally cured resin coatings stiffen the nonmetallic cores. Mechanical equipment cuts and slices the expanded cores to define final structural shapes.

The resin coating and curing processes constitute the primary sources of emissions from the facility. Most of the atmospheric emission streams from the honeycomb manufacturing process contain VOCs and HAPs. Other constituents emitted to the atmosphere consist of criteria pollutants from the combustion of natural gas, acid fumes from certain pre-printing process lines, and particulate matter from the core-shaping process areas.

The resin coating process involves large quantities of organic solvents which must be handled in an explosion-proof facility. Some of the solvent which evaporates during the dipping process and handling of "wet" blocks" is lost to the atmosphere. However, the bulk of emissions from both the "purging" process and the curing process is collected and transported to oxidizers which substantially reduce emission concentrations. Other VOC- and HAP-generating processes throughout the plant have differing degrees of capture and/or control.

Liquid wastes from the various solvents used for cleaning as well as residual solvent-based mixtures are disposed of at an EPA permitted disposal facility. The particulates from cutting non-metallic core are captured and disposed as solid waste. The chips and scraps from cutting metallic core are captured and sold on the metal recycling market.

Since the source constitutes a "major emitting source" within the meaning of CAA §169(1), and "major source" for volatile organic compounds within the meaning of CAA §302(j), the facility requires an operating permit under CAA §501 *et seq.*

PERMIT HISTORY

- 1) Renewal V20639.000 addresses the following administrative changes:
 - Replacement of 2 MMBtu oven #460C by another natural gas oven, rated at 4 MMBtu. The emissions increase for NOx and CO will be less than 1 tpy.
- 2) Permit revision '.R07 authorizes the addition of 3 additional double capacity purge/cure ovens (#26, #27, #28), a set of Four-Block oven carts, one additional R169 dip tank (R169 Dip Tank #2), a replacement for F660 dip tank, a replacement for F124 dip tank and an additional Acousti-Cap Dip/Blot machine. Hexcel will also be controlling the CCC Machine #1 and #2 emissions by routing them to an existing RTO. The proposed emissions increase from this revision will be 61.29 tons per year of VOC, which exceeds the 40 tpy PSD significance threshold. Looking at the 5-year look-back of emissions increases and decreases, the net emissions increase is less than 100 tpy.

This revision is a major modification, and since Hexcel is an existing PSD major source, the facility is subject to PSD review for VOC emissions, and therefore has to apply Best Available Control Technology (BACT). The corresponding Technical Support Document for this revision includes all the information pertaining PSD review, as well as explanation on other changes made to this permit during this revision.

- 3) Permit revision '.R06 authorizes the addition of double oven #25, an indirect-fired natural gas oven. The addition of oven #25 increases potential VOC emissions by 17 tpy.
- 4) Permit revision '.R05 authorizes the replacement of RTO #1 with a new oxidizer system. The oxidizer system capacity will be larger than the previous one, and in addition to controlling the same Purge/Cure oven emissions as the current RTO #1, Permittee will also be capturing emissions within the Dip Room that in the past went uncontrolled, and venting them to the new RTO. These previously uncontrolled emissions are:
 - Emissions from dip room vents (411-1 through, 411-5).
 - In the past, when there was no demand for make-up air for the purge/cure ovens, pressure relief louvers would vent the air that was captured from within the diproom to the atmosphere. Permittee will also capture these low-level, high volume VOC emissions from the pressure relief louvers and vent them to the new RTO.
 - Dip Room Blow Out Rack (stack #417)
The new oxidizer will be made up of two units of 50,000 cfm each (RTO #3 and RTO #4). These units will be installed in phases to ensure there's adequate emissions control at all times during the transition. The addition of this new RTO system and the additional capture of emission points previously vented to the atmosphere represents a decrease in VOC emissions of 39 tpy.

As part of this revision, Permittee will also be conducting the following changes: 1) the replacement of the PAA oven by a 3 MMBtu/hr oven, 2) the replacement of the fans for Purge/Cure ovens 17-21, with larger capacity fans, to decrease the length of the cycle and therefore increasing the number of cycles that can occur in a given amount of time, and 3) the addition of double oven #24, an indirect-fired natural gas oven. No additional VOCs will be emitted from the replacement of the PAA oven. The fan upgrades in ovens 17-21 represent an increase of 4.36 tpy (or 0.87 tpy per oven) in potential VOC emissions, and the addition of oven #24 increases potential emissions by 17 tpy.

This revision also approves an administrative change regarding the deviation reporting of the RTOs. The permit currently requires permittee to report any shutdown of the RTO as a deviation of the permit. Since Permittee does conduct planned shutdowns for required maintenance and repair, they've been reporting deviations in accordance to the permit, even though the operations routed to such RTO are also shutdown, or bypassed to another RTO during these maintenance and repairs. This revision revises the language in the permit to require reporting only on deviations of the temperatures or pressure drops that occur when the oxidizer is operating and controlling emissions.

Due to the changes approved by this revision, there will be an emissions increase of 26.20 tpy of NOx due to the larger capacity of RTOs #3 and #4, the PAA oven replacement, and new oven #24.

- 5) Permit revision '.R04 re-authorizes the installation of oven #23 previously approved by revision '.R03. Such oven has not been installed yet, and Permittee would like it to install it as a "double" oven. This change does not trigger any additional requirements. Also, as part of this revision, the language from Code §3-1-082, which was previously missing, was added to the permit.
- 6) Permit revision '.R03 authorizes the installation of the "Septum Core" process and Purge/Cure Ovens #22 and #23. While the original Title V permit for this facility (V20602.000) authorized the installation of oven #22 (see §12.B of such permit), Permittee has re-submitted the oven's information with revision R03 emissions and an applicability analysis for the installation of the oven.

The Septum Core process will be used to produce a new type of honeycomb core with pieces of material, or septa, inserted and adhered into each honeycomb cell. The process will involve the addition of a Septum Core Machine, 2 Septum Insertion Machines and a Septum Adhesive Cure Machine. This process will emit Volatile Organic Compounds and Hazardous Air Pollutants due to the application and curing of adhesive. This process is subject to the requirements of 40 CFR 63 Subpart JJJJ¹ and therefore emissions will be controlled using enclosures around the process and venting emissions to the oxidizer.

The 2 new ovens will be hot oil heated by existing hot oil heaters. As with the existing purge/cure ovens, VOC-rich portions of the oven cycle will be controlled by a thermal oxidizer and the portions of the cycle with less VOCs will be vented directly to the atmosphere.

- 7) Permit revision ('.R02) reopens the permit to include the applicable requirements of the MACT standard for Paper and Other Web Coating (Subpart JJJJ). Permittee has requested an extension on the compliance date for this standard, since to be able to comply they are installing permanent enclosures around some of their processes. This permit revision is issued with a compliance plan and a compliance schedule in accordance with §63.6(i)(4)(i).

To demonstrate compliance with the requirements of subpart JJJJ, Hexcel intends to use a combination of add-on controls and the use of low-HAP materials. Coating use data will be averaged across all lines, and control efficiencies will be factored in where appropriate in the compliance demonstration. Permanent Total Enclosures (PTE's) will be installed around three of the affected processes to achieve compliance with JJJJ. The VOC emissions increase associated with this change is less than the 40 tons significance level, and does not trigger PSD.

- 8) Permit revision ('.R01) removes the MACT standard for Surface Coating of Miscellaneous Parts (Subpart MMMM) from the permit. The original permit allowed the Permittee until 1/5/05 to submit an applicability notification. On 1/5/05, PCAQCD received notification that such standard was not applicable, and in accordance with section 6.C.3 (no longer an existing section of this permit), Hexcel has submitted a permit revision to remove the standard from their permit. Also, since the issuance of the original permit, the MACT standard for Industrial, Commercial, and Institutional Boilers and Process Heaters (Subpart DDDDD) has been promulgated. Revision '.R01 incorporates the standard into the permit. A very brief summary of the changes processed through revision '.R01 can be found in the corresponding Technical Support Document (TSD).

2. Listing of (*Federally Enforceable*) Applicable Requirements [*Mandated by 40 CFR §70.5(c)(4)*]

- A. Those specific provisions of the Pinal-Gila Counties Air Quality Control District ("PGAQCD") Regulations, as adopted by the Pinal County Board of Supervisors on March 31, 1975, and approved by the Administrator as elements of the Arizona State Implementation Plan ("SIP") at

¹See TSD for this permit revision for discussion on Subpart JJJJ applicability.

43 FR 50531, 50532 (11/15/78), and specifically the following rules:

7-1-1.2	Definitions
7-3-1.1	Emission Standards - Particulates - Visible Emissions - General
7-3-1.2	Emission Standards - Particulate Emissions - Fugitive Dust
7-3-1.3	Emission Standards - Particulates - Open Burning
7-3-1.7.A	Particulate Emissions - Fuel Burning Equipment
7-3-1.7.B	Particulate Emissions - Fuel Burning Equipment
7-3-1.7.C	Particulate Emissions - Fuel Burning Equipment
7-3-1.7.D	Particulate Emissions - Fuel Burning Equipment
7-3-1.7.E	Particulate Emissions - Fuel Burning Equipment
7-3-1.8	Particulate Emissions - Process Industries
7-3-4.1	CO Emissions - Industrial
7-3-5.1	NOx Emissions - Fuel Burning Equipment

- B. Those specific provisions of the Pinal-Gila Counties Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 47 FR 15579 (4/12/82), specifically, the following rules:

7-3-1.1	Visible Emissions; General
7-3-1.7.F	Fuel Burning Equipment

- C. The New Source Performance Standard ("NSPS") for Polymeric Coatings of Supporting Substrates, 40 CFR Part 60, Subpart VVV [40 CFR §60.744(b) (2000)] sections 40.747(c)(1) through (c)(3). If the amount of VOC used is 95 Mg or greater per 12-month period, the facility is subject to all the requirements of the subpart. Once a facility has become subject to the requirements of the subpart, it will remain subject to those requirements regardless of changes in annual VOC use.
- D. The New Source Performance Standard ("NSPS") for Volatile Organic Liquid Storage Vessels, 40 CFR Part 60, Subpart Kb [40 CFR §60.116b(b) (2000)].
- E. CAA §§608 & 611 (11/15/90); 40 CFR Part 82, Subpart F - Recycling and Emissions Reduction (9/7/95); regulations pertaining to use and handling of ozone-depleting substances.
- F. PCAQCD permit A20422.000 (1/18/94), imposing certain limits on opacity, baghouse operation, and material labeling.
- G. PCAQCD permit revision A20422.R03 (10/9/99), imposing "synthetic minor" limits on operation of newly installed emergency air compressor and emergency generator.
- H. The National Emission Standard for Hazardous Air Pollutants ("MACT") for Aerospace Manufacturing and Rework Facilities, 40 CFR Part 63, Subpart GG [40 CFR §63.740 *et seq.* (1995)]
- I. The National Emission Standard for Hazardous Air Pollutants ("MACT") - General Provisions [40 CFR §63.1 *et seq.*]
- J. The New Source Performance Standards ("NSPS") - General Provisions [40 CFR §60.1 *et seq.*]

3. Compliance Certification

- A. Compliance Plan [*Mandated by 40 CFR §70.5(c)(8)*] (Code §§3-1-081.C, 3-1-083.A.7)
- Since the Permittee has certified that it is currently in compliance, the compliance plan consists of continued adherence to the requirements of this permit.
- B. Compliance Schedule [*Mandated by 40 CFR §§ 70.5(c)(8), 70.6(c)(3)*] [40 CFR 63.6(i)(6)(B)] (Code §§3-1-060.B.1, 3-1-083.A.7.c)

Inssofar as the Permittee is currently in compliance, no compliance schedule to attain compliance is required.

4. Authority to Construct; Major- and Minor-NSR Permit-Based Limitations

A. Generally

This permit section sets forth "applicable requirements" founded upon the federally enforceable provisions of prior "permits to construct." Other than as defined in this section, emission units at this facility are "grandfathered," and are not subject to limitations arising only from limitations defined in prior permits. Nonetheless, all emission units do fall subject to relevant Regulatory Emission Limitations, as defined elsewhere in this permit.

B. Prior Permit-based Minor NSR Limitations [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*] (Code §3-1-081.A)

1. Emissions Cap - nitrogen oxides

a. Emission Cap

The emergency air compressor and generator installed under permit revision A20422.R03 (10/9/99) constitute the "emergency units." Permittee shall limit emissions, in any consecutive twelve-month period, such that emissions of nitrogen oxides from the emergency units do not exceed 30 tons.

b. Operational Limitations

To stay within the preceding emission cap for nitrogen oxides emissions, and thereby also avoid PSD review, Permittee shall equip the air compressor and emergency generator with a system to record the operational time of each unit, and shall limit the monthly operation of each emergency unit based on a three (3) month rolling average, to:

- i. 207 hours per month for the emergency generator; and
- ii. No limit for the emergency air compressor.

These operational limits will limit the potential emissions of nitrogen oxides to approximately 75 percent of the 40 tpy significance level for NO_x.

2. Emissions Cap - VOCs

a. Best Available Control Technology (BACT) [*Mandated by 40 CFR §70.6(a)(1)*] (Code §3-3-250)

Emissions from the following equipment shall be controlled by an RTO system, with a minimum destruction efficiency of 95%:

- Purge/Cure Ovens #19, 20 and 21.

3. Purge/Cure Ovens #22 and #23

a. Level of Control

Emissions from ovens #22 and #23 installed under permit revision V20602.R04 (5/24/07) shall be reduced by control in an RTO system, with a minimum destruction efficiency of 95%.

b. Required Capture Efficiency

Emissions from these emission points shall be subject to at least the 75% capture requirement determined per testing conducted in 2006.

4. Septum Core Process

a. Level of Control

VOC emissions from the Septum Core Machine and the Septum Cure Adhesive Machine installed under permit revision V20602.R04 (5/24/07) shall be reduced with a net control efficiency of 90%, and that control efficiency shall reflect the combination of capture efficiency and destruction efficiency of the RTO systems.

C. V20602.R05 New Equipment Minor NSR Limitations [*Federally enforceable provision, pursuant to Code §3-1-084(8/11/94)*] (Code §3-1-081.A)

1. Emissions Cap - VOCs

a. Emission Cap

Permittee shall limit VOC emissions from the new Purge/Cure Oven # 24, Fan upgrades to Ovens #19 through #21, PAA Oven replacement and Oxidizer #1 replacement authorized by revision V20600.R05, in any twelve-month period, to 24 tons.

b. Operational Limits and Controls

To stay within the preceding emission cap for VOC emissions, and thereby also avoid triggering PSD review, Permittee shall:

- i. Replace RTO #1 with an RTO system with 2 units rated each at 50,000 cfm at least, in order to provide additional VOC control capacity and redundancy to the system.
 - A. Each RTO unit shall be equipped with a thermocouple or RTD to measure the temperature in the combustion zone and a differential pressure flow device or fan motor ammeter to measure the gas velocity or flow rate.
- ii. Install a capture system for the emissions from the dip room Blow Out Rack (Stack #417), the dip room Vents 1 through 5 (Stacks #411-1 through 411-5) and the exhaust from the header system which provides make up air to the ovens. Emissions from these points shall then be vented to an RTO system with a minimum 95% destruction efficiency.
- iii. Replace the fans for ovens 17-21 with new fans each rated at no more than 10,000 cfm. Installation of these fans shall not affect the way the oven emissions are currently vented to an RTO system.
- iv. Vent emissions from the purge/cure cycles of oven #24 to an RTO system with a minimum 95% destruction efficiency.

c. Required Capture Efficiency in the Dip Room

Emission points within the dip room shall be subject to a nominal VOC capture of 83%. This capture shall be demonstrated as required by this permit. This increased capture will reduce VOC emissions from the facility by 39 tons per year.

2. Emissions Cap - NOx
 - a. Emission Cap

Permittee shall limit Nox emissions from the new Purge/Cure Oven # 24, PAA Oven replacement and Oxidizer #1 replacement authorized by revision V20600.R05, in any twelve-month period, to 26 tons.
 - b. Operational Limits and Controls

Permittee shall only use natural gas to fuel the PAA Oven replacement and Purge/Cure Oven #24, and as auxiliary fuel for RTO system #3 and #4.
- D. V20602.R06 New Equipment Minor NSR Limitations [*Federally enforceable provision, pursuant to Code §3-1-084(8/11/94)*] (Code §3-1-081.A)
 1. Emissions Cap - VOCs
 1. Level of Control

Emissions from Purge/Cure oven #25 installed under permit revision V20602.R06 shall be reduced by control in an RTO system, with a minimum destruction efficiency of 95%.
 2. Required Capture Efficiency

Emissions from the oven shall be subject to at least the 95% capture requirement determined per testing conducted in 2005.
 2. Operational Limits and Controls - NOx

Permittee shall only use natural gas to fuel the Purge/Cure Oven #25.
- E. V20602.R07 New Equipment Major-NSR Limitations [*Federally enforceable provision, pursuant to Code 3-3-250 (SIP-approved at 61 FR 15717, 4/9/96)*] (Code §3-1-081.A)
 1. Emissions Caps - Hazardous Air Pollutants (HAPs)
 - a. Permittee shall limit the facility-wide HAP emissions to a rolling 12-month total of 10 tons of any single HAP or 25 tons of a combination of HAPs.
 2. Monitoring Requirements to Avoid HAP major source status [*Federally enforceable provision, pursuant to Code §3-1-084(8/11/94)*] (Code §3-1-081.A)
 - a. In order to ensure that the HAP emissions cap is not exceeded, permittee shall:
 - i. Generate, by the 15th day of the month, a report of cumulative actual HAP emissions during the preceding calendar month; and
 - ii. Generate, by the 15th day of the month, a report of cumulative actual HAP emissions during the preceding twelve calendar months.
 - b. Exceeding the HAPs emission cap shall constitute a violation of this permit for each day that emissions of the offending pollutant were emitted from any part of the facility during:
 - i. The calendar month in which the cap was exceeded; and
 - ii. Any subsequent calendar month in which the cap continues to be exceeded.

3. Best Available Control Technology (BACT) [*Mandated by 40 CFR §70.6(a)(1)*] (Code §3-3-250)

Emissions from the following equipment shall be controlled by an RTO system, with a minimum destruction efficiency of 95%:

- a. Purge/Cure Ovens #26, #27 and #28;
- b. A-Cap Machine;
- c. CCC Machines #1 and #2.

4. Timing and Progress of Construction (Code §3-3-210.4)

This permit modification 'R07 shall be subject to termination if the proposed construction has not begun within 18 months of permit issuance, or if during the construction work is suspended for more than 18 months. §

F. V20639.R01 Soil Vapor Extraction Unit (SVEU) Minor-NSR Limitations [*Federally enforceable provision, pursuant to Code §3-1-084(8/11/94)*] (Code §3-1-081.A)

1. Permittee shall not directly discharge VOCs into the atmosphere from the ground without passing them through a Compact-Therm Thermal/Catalytic Oxidizer with a destruction efficiency of at least 99% during the thermal mode and at least 98% during the catalytic mode.
2. Permittee shall maintain the process temperature during thermal mode to be equal to or greater than 1400 °F, and equal to or greater than 600 °F during catalytic mode.
3. Permittee shall not add dilution air to the gas stream downstream of the flow measurement device required by this permit.
4. Permittee shall maintain the velocity of the gases exiting the SVEU to be greater than or equal to 2.3 meters per second (7.5 feet per second), based on the actual flowrate.
5. Upon project completion, all vapor extraction wells shall be secured with locking caps to prevent access.
6. Permittee shall only use natural gas or propane to operate the SVE.
7. This unit is subject to the NOx, SO2 and PM10 standards included in Sections §§6.B.2, 6.B.3, 6.D.2 and 6.E.2.

G. VOC Facility-Wide PSD Cap [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*] (Code §3-1-081.A)

Permittee shall limit the facility-wide VOC emissions to a rolling 12-month total of 300 tons.

H. V20602.R07 - PSD-Implied Cap on VOC Emissions [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*] (Code §3-1-081.A)

Before commencing any change in the method of operation that will produce an increase in VOC emissions of 40 tpy or more, Permittee shall obtain approval of a significant revision/major modification of this permit. For purposes of this limitation, change in the method of operation includes introduction of new or substitute VOC-containing product formulations, and including any directly associated modifications. However, this requirement is subject to the following limitations:

1. VOC-Containing Material for purposes of this section shall mean those materials that

contain VOCs as defined in Pinal County Code §1-3-140.147 except for materials with anticipated use of less than 2,000 tons per year and with a VOC concentration less than 1% by weight.

2. Where the increased emissions occur as a result of emissions with a unit that already falls subject to a capture-and-control requirement, permittee may invoke the benefit of that inherent control and only the net after-control increase shall count with respect to that 40 tpy threshold.
3. Emission changes associated with independent changes in the method of operation need not be aggregated with respect to the 40 tpy threshold. The burden rests with the Permittee to establish that changes in the method of operation are in fact independent and are not directly associated.
4. Permittee shall establish a log of new or substitute volatile product formulations, and unless a new formulation is subject to a permit revision application as described above, shall provide written notice to the Control Officer within 30 days of the introduction of any VOC-containing product that the Permittee anticipates using in excess of a total mass of 20 tons per year.

5. Other Derivative Non-NSR Predecessor-Permit-Based Limitations

A. Generally

1. These limitations derive from operating permit limitations imposed under prior permits, and are included at the voluntary request of the Applicant/Permittee.
2. Applicable Limitations (Code §3-1-082)

Where different standards or limitations apply under this permit, the most stringent combination shall prevail and be enforceable.

B. PCAQCD Permit Number A20422, Attachment B Limitations

1. Opacity Limitation

Visible emissions from all aspects of the operation shall be kept below 20 percent opacity for equipment and below 40 percent opacity for yards and open areas.

2. Baghouse Operation

Permittee shall operate three baghouses, and corresponding emission collection systems, to reduce particulate matter from saws (Emission units 550A through 550M) at an efficiency of 99% or higher.

3. Labeling of Raw Materials

All volatile organic compounds or material containing volatile organic compounds shall be labeled accurately.

C. Derivative VOC Control Limitations; Continuation of Control Effort [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*] (Code §3-1-081.A)

As a voluntarily requested limitation to continue the level of control previously required under the now-defunct "40#/15# rule," Permittee shall maintain and operate the existing VOC capture and control system to effectively achieve an on-going continuation of the existing level of control.

1. Control Required for Affected Group 1 Emission Units

a. Group 1 Emission Units - Definition

The following devices, which are all vented to an RTO system on a full-time basis, shall be designated as Group 1 emission units.

Emission Unit #	Stack #	Stack Description	% VOC Loading to oxidizer ²	Nominal Minimum Capture %
010	011	Ceramic prepreg tower vent	0.0%	95%
120A	123	PAA vent	0.4%	95%
130	131	Foil coater vent	1.3%	95%
160	161	UD tapeline vent	4.1%	95%
210	211	#335 Printline vent	6.6%	95%
230A	231	#7 Printline vent	9.9%	95%
240	241	Al Flexcore Machine vent	0.8%	95%
250	251	CNF Printing	0.1%	95%
260 series		HRP/HTP lines	0.6%	95%
260A	261	HRP Glue Line vent	included in #260	95%
260B	262	HTP Machine vent	included in #260	95%
310	311	Tapeline vent	0.5%	95%
410E	418	Skybond dip tank vent	(Presumed < 1.0%)	95%
410K		F660 Dip Tank	< 1%	95%

b. Required Level of Control

VOC emissions from Group I emission units shall be reduced with a net control efficiency of 90%, and that control efficiency shall reflect the combination of capture efficiency and destruction efficiency of the RTO systems.

c. Required Capture Efficiency

Subject to the allowance for the Permittee to conduct unit-specific capture efficiency testing, coupled with a corresponding test of destruction efficiency for the relevant RTO system, which in combination show that some other capture efficiency still achieves an overall 90% level of control, Group 1 emission units shall be subject to a capture efficiency requirement as defined above in subparagraph a. Emissions from Group 1 emission units shall be captured and controlled by an RTO system.

2. Control Required for Affected Group 2 Emission Units

a. Group 2 Emission Units - Definition

² See 10/27/03 application revision; this distribution reflects actual VOC emissions from the 2002 emission inventory, adjusted to exclude acetone from the definition of VOC.

The following devices shall be designated as Group 2 emission units. Emissions from Group 2 units shall be captured and controlled by an RTO system, as further required below.

Emission Unit #	Stack #	Stack Description	% VOC Loading to oxidizer ³	Nominal Minimum Capture %
270B	272	Corrugated aluminum P/C oven vent	1.2%	95%
440/450/460		Resin purge/cure & cure ovens	72.1% (nominal)	95%
440 series	many	Purge/cure oven vents	inc. in 440/450/460 above	as above
450 series	many	Purge/cure oven vents	inc. in 440/450/460 above	as above
460 series	many	Purge/cure oven vents	inc. in 440/450/460 above	as above
470 Series		Corrugated/Graphite Cure Oven Vents	2.4%	99%
470A	471	Corrug./Graphite oven #1 vent	included in #470 above	
470B	473	Corrug./Graphite oven #4 vent	included in #470 above	
470C	475	Corrug./Graphite oven #5 vent	included in #470 above	

b. Required Level of Control

VOC emissions from Group 2 emission units shall be reduced with a net control efficiency of 90%, and that control efficiency shall reflect the combination of capture efficiency, the extent of by-pass directly to the atmosphere, and destruction efficiency of the RTO systems.

c. Required Capture Efficiency

Subject to the allowance for the Permittee to conduct unit-specific capture efficiency testing, coupled with a corresponding test of destruction efficiency for the relevant RTO system, and a quantification of emissions by-passed directly to the atmosphere, which in combination show that some other capture efficiency still achieves an overall 90% level of control, Group 2 emission units shall be subject to a capture efficiency requirement as defined above in subparagraph a.

3. Control Requirement for Affected Group 3 Emission Units

a. Group 3 Emission Units - Definition

The following devices, which constitute the combination of fugitive emission sources within the dip room, and those ovens which are tributaries from the sweeps within the dip room, shall constitute Group 3 emission units.

³ See 10/27/03 application revision; this distribution reflects actual VOC emissions from the 2002 emission inventory, adjusted to exclude acetone from the definition of VOC.

Emission Stack Unit #	Stack #	Description	% VOC Loading to oxidizer ⁴	Nominal Minimal Capture %
Dip room and related emissions			72.1%	90%
	410	Building 66 Dip Room vents 411-1	included in #410 above	90%
	410	Building 66 Dip Room vents 411-2	included in #410 above	90%
	410	Building 66 Dip Room vents 411-4	included in #410 above	90%
	410	Building 66 Dip Room vents 411-5	included in #410 above	90%
	410	Building 66 Dip Room vents 411-6	included in #410 above	90%
	410	Building 66 Dip Room vents 417-2	included in #410 above	90%
	440	Purge/cure oven vents	included in #410 above	90%
	450	Purge/cure oven vents	included in #410 above	90%

b. Required Level of Control

Combined emissions from the dip room equipment and the ovens tributary from the dip room collection sweeps shall be reduced by control in an RTO system, with a minimum destruction efficiency of 95%.

c. Required Capture Efficiency

Subject to the allowance for the Permittee to conduct a capture-testing program to quantify capture-efficiency for Group 3 emission points, aggregate emissions from affected Group 3 emission points shall be subject to an overall nominal 83% capture requirement as defined above in subparagraph a.

D. Emission Tracking at Group 1 Emission Units to Assess Need for Additional Capture Efficiency Testing

1. Future Changes at Existing Group 1 Emission Units

Permittee shall track future operational changes at existing Group 1 units that have not been previously tested for capture efficiency, and if operational changes, including production-rate changes, result in contribution of 2% or more of total VOC loading to TRO systems, then conduct a capture efficiency testing program with respect to the newly affected existing emission unit.

2. Additional Future Emission Units

New, future emission units will only be subject to generally prevailing applicable requirements, such as NSR/PSD or other relevant requirements, but not including the "derivative limitations" described above.

E. RTO Planned Shutdowns

Planned Shutdowns of the RTOs shall not be considered a deviation from the required pressure differential values or temperatures specified in this permit, and shall not require deviation reporting as required under §8.A of this permit provided that the following conditions are met:

⁴ See 10/27/03 application revision; this distribution reflects actual VOC emissions from the 2002 emission inventory, adjusted to exclude acetone from the definition of VOC.

1. All process emissions normally controlled by the RTO undergoing shutdown are either:
 - a. Stopped for the duration of the RTO shutdown, or
 - b. Controlled by another RTO that is operating within the appropriate temperature and pressure parameters established in this permit.
 2. Records shall be kept indicating the date and the time the RTO was shutdown, date and time the RTO was restored, and how process emissions were controlled during the shutdown.
- F. RTO Collection System; Negative Pressure Monitoring System; Minimum Negative Pressure Requirement
1. Permittee shall install and operate a pressure differential monitoring system in the trunk of RTO #2, Airex oxidizer #610B, and that monitoring system shall be capable of measuring the differential relative to atmospheric pressure, measured in inches-of-water-column ('" w.c. '). The system shall include a data recording system, and shall be configured to sample pressure differentials at least once every 15 minutes.
 2. Based on a 1-hour average of observed pressure differential values, pressure in the collection duct trunk feeding the Airex oxidizer #610B shall not rise above -1.4" w.c.
- G. RTO Operating Requirements
1. Minimum Destruction Efficiency
At a minimum, each RTO shall maintain a destruction efficiency of not less than 95%.
 2. Temperature Monitoring System
The Permittee shall install and operate on each RTO unit a temperature monitoring system that continuously monitors the temperature in the oxidizer combustion zone, and that temperature monitoring system shall be accurate to within 0.75% of observed temperature. The continuous temperature monitoring system shall also be equipped with a system to log those temperatures, electronically or otherwise, at least once every 15 minutes. Each temperature monitoring system shall be equipped with an alarm, adequate to alert the permittee if instantaneous observed temperatures in the combustion zone fall below 1500° f.
 3. Minimum Operating Temperature
Permittee shall maintain an average minimum temperature of 1500° f. in the combustion zone of each RTO unit, based upon a rolling 1-hour average of monitored temperatures, or another adequate temperature as demonstrated by a performance test. Observed excursions below that average minimum temperature shall trigger a requirement for a corrective action plan, as defined in the compliance section below.
 4. Minimum Residence Time
The RTOs shall be operated with a minimum of 1 second residence time, per manufacturer.
 5. Gas Flow Monitoring
Within 90 days of the start-up of operation of any RTO, Permittee shall install and operate on each RTO unit a gas flow meter that continuously monitors total gas flow through the unit. The meters shall be equipped with a system to log the gas flow, electronically or otherwise.

H. Excess Emissions

Other than cure oven emissions occurring during the last 75% of the purge/cure cycle, and this in no way relieves Permittee from controlling emissions from Group 2 units by at least 90%, bypassing emissions from any of the above-scheduled emission units around the oxidizers shall constitute a period of excess emissions.

6. **Regulatory Emission Limitations** [*Mandated by 40 CFR §70.6(a)(1)*] (Code §3-1-081.A.2)

A. Allowable Emissions

1. **General Limitation** [*Code § 3-1-081.A.2. (as amended 10/12/95) approved as a SIP Element at 61 FR 15717 (4/9/96)*]

- a. Permittee is authorized to discharge or cause to discharge into the atmosphere those emissions of air contaminants as set forth below. Unless exempted under Code §3-1-040.C., or authorized by a separate permit, by this permit or by a revision or operational change allowed under Chapter 3, Article 2 of the Code, Permittee shall not commence construction of, operate or make any modification to this source in a manner which will cause emissions of any regulated air pollutant in excess of the de minimis amount.
- b. To the extent a change in material formulation or addition of a process material can produce additional emissions, then that change or addition qualifies as a change in the method of operation.

2. **Insignificant Activities** (*Code §§1-3-140.74a, 3-1-040.B.2.a.i, 3-1-050*)

Apart from the authority of this permit, Permittee is authorized to discharge or cause to discharge into the atmosphere emissions from insignificant activities, as defined in Code §1-3-140.74a. Appendix B of this permit includes a non-limiting schedule of specific activities that the District concurs qualify for "insignificant" status.

B. Particulate Emissions Limitations

1. **Spray Booth Controls** [*Code 5-13-390 (10/12/95) approved as a SIP element at 61 FR 15717 (04/09/96)*]

The spray booth (process 430) shall be an enclosed area operated with dry filters by the permittee to remove paint overspray from the spray booth at an efficiency of ninety-six (96) percent by weight or higher.

2. **Opacity Limits**

a. **SIP Limitation - [Federally enforceable pursuant to PGAQCD Reg. 7-3-1.1 (6/16/80) approved as a SIP Element at 47 FR 15579 (4/12/82)]**

The opacity of any plume or effluent shall not be greater than 40 percent as determined by reference method 9 in the Arizona Testing Manual.

b. **Locally Enforceable Limitation (Code §2-8-300)**

The opacity of any plume or effluent from any point source not subject to a New Source Performance Standard adopted under Chapter 6 of the Code, and not subject to an opacity standard in Chapter 5 of the Code, shall not be greater than 20% as determined in Method 9 in 40 CFR 60, Appendix A.

3. **Mass Emissions Limitation**

a. **SIP Limitation [PGCAQCD Reg. 7-3-1.7 (3/31/75) approved as a SIP element**

at 43 FR 50531 (11/15/78)] (§5-21-930)

For equipment with a heat input capacity of less than 4,000 million Btu per hour, particulate emissions shall not exceed:

$Y = 1.02X^{-.231}$, where Y = maximum emissions in lbs./hr. for each million BTU per hour heat input, and X = maximum heat input capacity in million BTU per hour.

- b. Particulate Emissions - Process Industries [*PGAQCD Reg. 7-3-1.8 (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78)*] (§5-24-1030.A.1.)

Permittee shall not cause, suffer, allow, or permit the discharge of particulate matter into the atmosphere from any existing process source whatsoever, except incineration and fuel-burning equipment, in excess of the amount calculated by the equations presented below:

1. For any process operating at a production process weight rate ("P") up to 30 tons-per-hour, allowable emissions ("E") shall not exceed:

$$E = 4.10 P^{0.67} \text{ pounds-per-hour.}$$

2. For any process operating at a production process weight rates ("P") equal to or greater than 30 tons-per-hour, allowable emissions ("E") shall not exceed:

$$E = (55.0 P^{0.11} - 40.0) \text{ pounds-per-hour.}$$

- c. Particulate Emissions - Stationary Rotating Machinery [*PGAQCD Reg. 7-3-1.7 (amended 6/16/80) approved as SIP Element at 47 FR 15579 (4/12/82)*] (Code §5-23-1013)

The maximum allowable emissions shall be determined by the following equation:

$$E = 1.02Q^{0.769} \text{ where:}$$

E = the maximum allowable particulate emissions rate in pounds-mass per hour and

Q = the total heat input of all operating fuel-burning units of stationary rotating machinery on the premises in million Btu/hr.

4. Fugitive Emission Limitation [*PGCAQCD Reg. 7-3-1.2.A approved as a SIP element at 43 FR 50531 (11/15/78)*]

No person shall cause, suffer, allow or permit a building or its appurtenances or open area to be used, constructed, repaired, altered, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Dust and other types of particulates shall be kept to a minimum by such measures as wetting down, covering, landscaping, paving, treating or by other reasonable means.

5. Abrasive Blasting Controls (Code §5-4-160)

Any abrasive blasting operation shall use at least one of the following control measures:

- a. Confined blasting.
- b. Wet abrasive blasting.
- c. Hydroblasting.

- d. A control measure that is determined by the Control Officer to be equally effective to control particulate emissions.
- C. CAA §112 MACT Limitations (Code §3-1-081)
- 1. Aerospace Manufacturing and Rework Facilities MACT (40 CFR Part 63, Subpart GG; 40 CFR §63.740 *et seq.*)
 - a. General Standards (40 CFR §63.743(a)): Permittee shall comply with the following sections of 40 CFR Part 63, as provided in 40 CFR §63.743(a):
 - i. §63.4, Prohibited activities and circumvention;
 - ii. §63.5, Construction and reconstruction; and
 - iii. §63.6 Compliance with standards and maintenance requirements.
 - b. Housekeeping Measures (40 CFR §63.744): Cleaning of the metallic and nonmetallic honeycomb cores shall comply with the requirements in the following paragraphs:
 - i. Place used solvent-laden cloth, paper, or any other absorbent applicators used for cleaning in bags or other closed containers. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.
 - ii. Store fresh and spent cleaning solvents, except semi-aqueous solvent cleaners, in closed containers.
 - iii. Conduct the handling and transfer of cleaning solvents 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.
 - c. Recordkeeping requirements (40 CFR §63.752(a)):
Permittee shall fulfill all recordkeeping requirements specified in §63.10(a), (b), (d) and (f).
 - d. Reporting Requirements (40 CFR §63.753)
 - i. Permittee shall fulfill the requirements contained in §63.9(a) through (e) and (h) through (j), Notification requirements, and §63.10(a), (b), (d), and (f), Recordkeeping and reporting requirements, of the General Provisions, 40 CFR Part 63, Subpart A.
 - ii. Permittee shall submit semiannual reports occurring every 6 months from the date of the notification of the compliance status that identify:

A list of any new cleaning solvents used for hand-wipe cleaning in the previous 6 months, and as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in §63.744(b)(1).

If the operations have been in compliance for the semiannual period, Permittee shall submit a statement that the cleaning operations have been in compliance with the applicable standards. Permittee shall also

submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.

D. Nitrogen Oxides Emission

1. Boilers and Water Heaters [*PGCAQCD Reg. 7-3-5.1.B approved as a SIP element at 43 FR 50531 (11/15/78)*] (Code §5-22-970)

The steam boilers and water heaters shall not emit more than 0.20 pounds of nitrogen oxides, maximum two-hour average, calculated as nitrogen dioxide, per million Btu heat input when gaseous fuel is fired, and 0.30 pounds of nitrogen oxides, maximum two-hour average, calculated as nitrogen dioxide, per million Btu heat input when liquid fossil fuel is fired.

2. RTOs and other Unclassified Sources (Code §5-24-1030.A.3.)

The Permittee shall not emit more than 500 parts per million of nitrogen oxides expressed as NO₂ from the RTOs and any unclassified source.

E. Sulfur Dioxide Emissions

1. Boilers and Water Heaters (Code §5-22-960)

The steam boilers and water heaters shall not emit more than 0.80 pounds of sulfur dioxide, maximum two hour average, per million Btu heat input when oil is fired.

2. RTOs and other Unclassified Sources (Code §5-24-1030.A.2)

The permittee shall not emit more than 600 parts per million of sulfur dioxide from the RTOs and any unclassified source.

F. Fuel Use Limitations (Code §§3-1-081.)

1. Primary Fuels

- a. The Permittee is allowed to burn natural gas in the thermal oxidizers, engines, heaters, boilers, ovens, and other devices.

- b. Diesel Fuel Limitations (Code §5-23-1010)

The Permittee is allowed to burn diesel fuel in the emergency units, provided the sulfur content of that fuel shall never equal or exceed 0.90% by weight.

2. Other Fuels (Code §§3-1-081.G, 5-23-1010.F)

The Permittee shall not use used oil, used oil fuel, hazardous waste, and hazardous waste fuel (as defined in federal, state, or county codes and rules) without first obtaining a separate permit or an appropriate permit revision.

G. Partwashers (Code §5-15-620.)

1. Solvent cleaners/degreasers shall:

- a. Provide a leak-free container for solvents and articles being cleaned;
- b. Except for a remote reservoir cleaner using unheated solvent, be equipped with a cover which prevents the solvent from evaporating when not processing work;
- c. Be equipped with a drain configured to return solvent drained from cleaned parts to the container;

- d. Be clearly labeled to identify the solvent and explain the proper operation of the cleaner;
 - e. A degreaser/cleaner with a remote reservoir shall:
 - i. Be equipped with a sink-like work area sloped sufficiently toward a drain so as to prevent pooling of the solvent;
 - ii. Be equipped with drain from the sink to the reservoir, with a maximum drain area of 15.5 in²;
 - iii. Unless a low-volatility solvent with a boiling point above 248° f is utilized and the solvent is never heated above 120° f., a stopper shall be used to seal the drain opening or a cover placed over the sink when the device is not in use.
 - f. A degreaser/cleaner without a remote reservoir shall:
 - i. If the degreaser utilizes a low-volatility solvent with a boiling point above 248° f., and the solvent is not agitated in use, Permittee shall maintain a minimum 6" freeboard and keep the cover closed when the apparatus is not in use;
 - ii. A cold degreaser using solvents which are not low volatility or which are agitated or are heated above 120° F shall have internal drainage and:
 - (1) Have a freeboard ratio of 0.75 or greater; or
 - (2) A water cover may be used to meet the freeboard requirement if the solvent is insoluble in and denser than water; and
 - (3) A cover shall be used that is of a sliding or rolling type which is designed to easily open and close without disturbing the vapor zone.
 - iii. Be equipped with a clear and conspicuous mark for the maximum allowable solvent level;
 - iv. As an alternative to the foregoing freeboard requirement, be equipped with a hood or enclosure with a ventilation rate of no less than 65 cfm per ft.² of evaporative surface, unless a more stringent requirement applies pursuant to OSHA requirements, and the overall control efficiency of emissions from the cleaner, considering both capture and destruction, shall not be less than 85%.
2. Permittee shall operate the cold solvent cleaners/degreasers in accordance with the operating requirements listed in Code §5-15-620.H. Each cold solvent/degreaser shall have a permanent, conspicuous label which summarizes the relevant operating requirements.
- H. **General Maintenance Obligation** (*Code §§3-1-081.A.2, 3-1-081.A.8.a, 3-1-081.E.2, 3-1-081.E.1., approved as Title V permit program elements 61 FR 55910 (10/30/96); also see ARS §§49-481(A), 49-487(B)*)
- At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.
- I. **Additional Applicable Limitations**
- 1. **Asbestos NESHAP Compliance** [*Currently federally enforceable; 40 CFR Part 61, Subpart M*] (Code §§7-1-030.A.8, 7-1-060)
- Permittee shall comply with Code §§7-1-030.A.8 and 7-1-060 and 40 CFR Part 61, Subpart M, when conducting any renovation or demolition activities at the facility.
- 2. **Stratospheric Ozone and Climate Protection** [*Currently federally enforceable; 40 CFR Part 82 Subpart F*] (Code §§1-3-140.15, 1-3-140.58.k)

The permittee shall comply with the applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

3. Disposal Limitation [*Code 5-13-390 (10/12/95) approved as a SIP element at 61 FR 15717 (04/09/96)*]

No person shall, during any one day, dispose of a total of more than one and one-half gallons of any photochemically reactive solvent, as defined in §5-12-370, or of any material containing more than one and one-half gallons of any such photochemically reactive solvent, by any means which will permit the evaporation of such solvent into the atmosphere.

7. Compliance Demonstration

A. General Provisions [*Mandated by 40 CFR §70.6(a)(3)*]

1. Generally Applicable Test Program Requirements

Unless specified otherwise in defining a particular testing requirement, all required tests shall conform to the following requirements.

a. Test Requirement

Test shall be required as defined elsewhere in this permit. Tests shall be performed at the maximum practical production rate.

b. Test Protocol

Required tests shall use standard EPA test methods (40 CFR Part 60). At least 60 days before the test, Permittee shall submit test protocol to PCAQCD for review and approval; Permittee shall provide notice of the performance test at least 30 days prior to running the test.

c. Timing of initial and subsequent tests

Required tests shall be conducted within 180 days of the issuance of this permit.

d. Test Report

A copy of the test report shall be submitted to the District for approval within forty-five days after the test.

e. Deferrals (Not applicable to Group 1 Units)

For good cause, the Control Officer may extend any of the times specified in this subsection to no later than 12 months after issuing this permit, and the Administrator may extend that by an additional 12 months after the initial deferral.

2. Recordkeeping [*Mandated by 40 CFR §70.6(a)(3)*] (Code §3-1-083)

- a. Permittee shall maintain at the source, a file of all measurements, including continuous monitoring-system-, monitoring-device-, and performance- testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required pursuant to any federally enforceable provision of this permit, recorded in a permanent form suitable for inspection.

- b. Permittee shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of the permitted facility or any air pollution control equipment. For purposes of this provision, a "shut-down" means a cessation of operations at the entire facility for more than seven days, and a "start-up" constitutes the reactivation of the facility after a "shut-down."

B. Compliance with "Authority to Construct" Limitations [*Mandated by 40 CFR §70.6(a)(3)*]

1. Compliance with HAP Emission Cap

To comply with the HAPs emissions cap as specified in Section 4.E.1 of this permit, Permittee shall on the 15th day of each month calculate actual 12 month rolling emissions and a 12-month rolling emissions "budget". This emission budget shall be based on the past 10 months of historical emissions data and the amount of emissions (or emissions budget) that could be allowable in the upcoming 2 months (including the current month) without exceeding the 10/25 tons per year HAPs emission cap.

2. Non-instrumental emissions monitoring - oxides of nitrogen from emergency units [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*]

- a. As a surrogate measurement for monitoring emissions of oxides of nitrogen, Permittee shall maintain records of the hours of operation of the emergency units.
- b. Permittee shall maintain a rolling twelve month record of the emissions of nitrogen oxides from the emergency units. The emissions shall be calculated by multiplying the hours of operation by the maximum emission rate listed by the manufacturer. If the twelve month total exceeds the "NO_x Testing Trigger" of twenty tons, or 66.6% of the 30-tpy cap imposed above under §4.B.1, Permittee shall run performance tests:
 - i. On one unit if that unit contributed more than 75% of the observed total; or
 - ii. On both units otherwise.

3. Testing - Emergency Unit Performance Tests [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*] (Code §§3-1-160 & 3-1-170)

Permittee shall conduct a performance tests for nitrogen oxides emissions from the emergency units within ninety (90) days after the "NO_x Testing Trigger" defined above in §7.B.1.b is met or exceeded. The performance stack testing shall use standard EPA test methods (40 CFR Part 60).

4. Compliance with the PSD-implied Cap on VOC Emission Changes

Permittee shall implement a system to track VOC emission changes resulting from changes in or additions of process materials that will emit VOCs within the facility.

- a. Any new or modified VOC-containing material which, based upon projected usage rates, will result in a VOC emissions increase of 1 tpy should be entered into a tracking system.
- b. For new/modified VOC-containing materials which, based upon projected usage rates, will be used at rate of less than 20 tpy of total mass per year, purchasing records should be logged on a monthly basis for at least 2 years after introduction. The mass of directly associated product changes should be treated as one mass. Emissions should be reported annually as part of the VOC inventory, based on (permittee's choice) of purchasing records or records of actual use.

- c. For new/modified VOC-containing materials which, based upon projected usage rates will be used at rate of more than 20 tpy of total mass per year, records of actual use should be logged on a monthly basis for at least 2 years after introduction. Corresponding product-specific emissions should be calculated on a monthly basis, and product-specific emissions should be aggregated on a monthly basis for at least 2 years after introduction. Emission calculations may invoke the limitations of the underlying PSD-implied Cap spelled out in this permit. The emissions of directly associated product changes should be treated as one total. Emissions should be reported annually as part of the VOC inventory, based on purchasing records or records of actual use.

C. Other Compliance Limitations [*Mandated by 40 CFR §70.6(a)(3)*]

1. RTO#2 Testing - Destruction Efficiency Verification

Within 12 months of the issuance of this Permit V20602.000, Permittee shall conduct a performance test to verify the destruction efficiency in each of the RTO units using EPA-approved Methods 25, 25A or 25B. Minimum Residence time values, specific to each RTO unit, shall be determined during the first RTO performance test.

This test shall be repeated annually, no later than 12 months after the previous test.

2. Testing Requirement for Existing Group 1 Emission Units - except 335 Printline, #7 Printline and UD Tapeline.

At least 90 days before testing, a test protocol for quantifying capture efficiency shall be submitted to PCAQCD as well as EPA for review and approval.

b. Tracking Requirement for RTO-contribution from Group 1 Emission Units that have not been tested for Capture Efficiency

On an annual basis, within 30 days of the end of each calendar year, Permittee shall review the emission data records required elsewhere under this permit, and shall identify any Group 1 Emission Units that contributed 2% or more of the VOC loading to the RTO systems, and which Group 1 Emission Units have not previously been tested for capture efficiency.

c. Testing for Group 1 Emission Units that Contribute Over 2% RTO Loading in the Future

To the extent Permittee's review under preceding subparagraph b. identifies any previously un-tested units that contributed more than 2% in the preceding calendar year, Permittee shall, within 180 days, conduct a capture-efficiency-verification-test of such unit(s) in accord with preceding subparagraph a.

3. Non-instrumental emissions monitoring - VOC Emissions; Cap Compliance Verification

a. Permittee shall maintain a list of all VOC-containing materials used at the facility in the manufacturing process. The list shall contain the following information:

- i. Name of the VOC containing material;
- ii. Process or equipment where the VOC-containing product is being used;
- iii. Manufacturer;

- iv. VOC content.
 - b. To demonstrate compliance with the VOC emission cap under §4.F, the Permittee shall maintain calendar-month records, updated within 15 days of the close of each calendar month, containing the following information:
 - i. Name of VOC-containing product and manufacturer;
 - ii. Process or equipment where the VOC-containing product is being used;
 - iii. VOC content (lb/gal, lb/lb or % by weight);
 - iv. Source for VOC content data (e.g., MSDS, formulation sheet, container, etc.);
 - v. Monthly usage of VOC containing product (gal or lb);
 - vi. Percentage and pounds of VOC retained in the product;
 - vii. Percentage and pounds of VOC captured in the RTOs;
 - viii. Percentage and pounds of VOC controlled by the RTOs;
 - ix. Percentage and pounds of VOC emitted to the atmosphere.
 - c. Permittee shall maintain all the supporting documentation, including but not limited to calculations, log sheets, MSDS sheets, emission factors, formulations and measurements used to determine VOC emissions and make it readily accessible to the Control Officer upon request.
 - d. Calculations of the 12 month rolling total VOC emissions to ensure that the emission cap defined elsewhere in this permit has not been exceeded.
4. RTO Operation Monitoring
- a. On a daily basis, Permittee shall physically inspect all RTO units to verify the structural integrity of each unit and that the units are in operation. The Permittee shall make a record of such inspection.
 - b. Except for during planned shutdowns, as defined in this permit, should the rolling average temperature in any RTO unit fall below 1500° F(1-hr average), or if one of the RTO units is non-operational, Permittee shall take such actions to curtail emissions, and shall investigate and report the cause and curative action taken within 10 days in accordance with the deviation reporting requirements of this permit.
 - c. On an annual basis, all RTOs shall be visually inspected for proper seating of the valves, and for accumulation of resin buildup in the valves. The same inspection shall be conducted on RTO #2, on an annual basis. Permittee shall keep records of such inspections.
5. Back-up graphite/prepreg oven Notification⁵
- Permittee shall notify the District within 14 days of resuming use of the Graphite Oven #3 (Equip.#520E) for sheet cure production. The notification shall include an explanation of

⁵Permittee is testing Graphite Oven #6 and considering the resulting per unit emissions to be representative of either oven since Oven #3 is used mostly as back-up to Oven #6.

whether the oven is being used as back-up or in addition to oven #6 (Equip. #520F).

D. Compliance with Minor-NSR Limitations [*Mandated by 40 CFR §70.6(a)(3)*]

1. RTO #3 and #4 Testing - Destruction Efficiency Verification

- a. Permittee shall conduct a performance test to verify the destruction efficiency RTO #3 within 60 days after achieving maximum production rate at which the RTO unit will be operated, but no later than 180 days after installation using EPA-approved methods 25, 25A or 25B.
- b. Permittee shall conduct a performance test to verify the destruction efficiency of RTO#4 within 60 days after achieving maximum production rate at which the RTO unit will be operated, but no later than 180 days after installation using EPA-approved methods 25, 25A or 25B.
- c. Permittee shall submit test protocols to the District for the above tests at least 60 days before the test.
- d. Permittee shall provide notice of the test to the District at least 15 days prior to running the test.
- e. A copy of the test report shall be submitted to the District for approval within 45 days after the test.
- f. Minimum Residence time values, specific to each RTO unit, shall be determined during the initial RTO performance test for each unit or shall be determined by engineering calculation, and shall be repeated if required in the event of the RTO being structurally modified.
- g. The destruction efficiency tests shall be repeated annually, no later than 12 months after the previous test of RTO #4.

2. RTO #3 and #4 Operation Monitoring

Except for during planned shutdowns, as defined in this permit, should the rolling average temperature in any RTO unit fall below 1500° F(1-hr average), or if one of the RTO units is non-operational, Permittee shall take such actions to curtail emissions, and shall investigate and report the cause and curative action taken within 10 days in accordance with the deviation reporting requirements of this permit.

The 1500 °F operational limit shall apply to the new RTO units #3 and #4 until individual operating ranges are established by testing as required by this permit. This interim operational temperature shall not prevent the Permittee from conducting tests that do not trigger the reporting requirements of §8.A during a 6 month shakedown period of the unit, under controlled performance testing conditions, of RTO temperatures below this one. Permittee shall keep precise records of when these tests were conducted with a summary of results.

3. Compliance Assurance Monitoring (CAM) for RTOs #3 and #4 [*Currently federally enforceable; see 40 CFR §64.1 et seq. (1997)*]

a. Indicators

Combustion zone temperature and exhaust gas flow rate for each RTO #3 and #4 shall be indicators of the RTOs performance.

- b. Permittee shall install a thermocouple or RTD on each RTO to monitor the combustion zone temperature, in accordance with §4.C.1.b of this permit and shall monitor the temperature in the combustion zone as follows:

- i. Automatically record the temperature at least every 15 minutes in units of Degrees Fahrenheit or Celsius (°F or °C), using a digital data acquisition system (DAS);
 - ii. Annual calibration of the thermocouple or RTD.
- c. Permittee shall install a differential pressure flow device or fan motor ammeter at each RTO, in accordance with §4.C.1.b of this permit and shall monitor the change in pressure of the gas velocity or flow rate through the RTO as follows:
 - i. Automatically record the exhaust flow rate at least every 15 minutes in units of cubic feet per minute (flow), or amps (current) using a digital data acquisition system (DAS);
 - ii. Annual calibration of the differential pressure flow device or ammeter.
- d. Except during planned RTO shutdown periods, and controlled engineering evaluations as defined in §5.E, any of the following shall constitute an “excursion” during operations:
 - i. Temperatures in the combustion zone outside of the range established in §7.D.3.e of this permit;
 - ii. Flow rates measured at the outlet of the RTO outside the range established in §7.D.3.e of this permit.
- e. At least 60 days before the testing required for each RTO #3 and #4, Permittee shall prepare and submit to PCAQCD for approval a testing plan as required in §7.D that will demonstrate the destruction efficiency required by this permit and establish an operational range of temperature in the combustion zone and exhaust flow rate.

The testing plan shall provide for a demonstration of compliance for the chosen range of temperature and flow rate set at the minimum and maximum levels

Permittee shall within 45 days after the submittal of the test report, submit to the Department and the Administrator, the operational ranges for the RTOs.
- f. Any excursion shall trigger corrective action to be initiated. All excursions will be documented and reported.
- g. Permittee shall maintain the monitoring equipment, including but not limited to maintaining necessary parts for routine repair of the monitoring equipment, in accordance with manufacturer’s specifications.
- h. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance of control activities, Permittee shall conduct all monitoring at all times when the plant is operating.
- i. Malfunction of any DAS, thermocouple or the differential pressure flow device, shall constitute a monitoring malfunction. Records shall identify the emission point or points affected by any monitoring malfunction.
- j. Any excursion, exceedance or monitoring malfunction shall require the operator to restore operation of the control and/or monitoring system to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of startup, shutdown or malfunction, and taking necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance.

- k. Permittee shall submit a Quality Improvement Plant (QIP) in accordance with 40 CFR §64.8 if any combination of excursions or monitoring malfunctions exceeds 3% of operating time, defined as 3 events in any given 100 calendar day period for a single RTO.
- l. Logs, excursion observations, exceedance observations and summaries of planned shutdowns shall all be subject to the recordkeeping and reporting requirements under the permit.
- m. If Permittee identifies a failure to achieve compliance with the CAM requirements, Permittee shall promptly notify the Department, and if necessary submit a revision to the permit to address the necessary monitoring changes.

4. SVEU Monitoring and Testing

- a. Permittee shall install and maintain a temperature monitor with an accuracy of ± 5 degrees Fahrenheit to measure and continuously record the process temperature of the thermal/catalytic oxidizer.
- b. Permittee shall install and maintain a flow meter at the stack of the thermal/catalytic oxidizer to measure and continuously record the total actual flow rate.
- c. Permittee shall take representative grab samples of the gases entering and exiting the SVEU on a monthly basis and shall determine from the representative grab samples the concentration of VOCs at the inlet of the SVEU and the concentration for the VOCs existing the SVEU.
- d. Permittee shall calculate and record a 12-month rolling total of VOC emissions within 15 days after the end of each month. These emissions count towards the VOC cap of this permit and should therefore be included in the records required by Section §7.B. These emissions shall be calculated using the representative gas samples in accordance with the following:
 - i. The first sampling results shall be used to calculate emissions until the second sampling date;
 - ii. The second sampling date results shall be used to calculate emissions that occur after the second sampling date until the third sampling date;
 - iii. Permittee shall continue the methodology from subsections i. and ii.
- e. For each grab sample, Permittee shall record the following information:
 - i. Date of sampling and the name of the company performing the laboratory analyses;
 - ii. Concentration of VOCs at the inlet of the SVEU (ppmv);
 - iii. Emission rate of VOC exiting the SVEU (lb/hr);
 - iv. VOC destruction efficiency of the SVEU.
 - v. The actual velocity of gases exiting the stack (feet per second);
 - vi. The process temperature of the SVEU in °F;
- f. Permittee shall record monthly, the total operating hours of the SVEU device on a 12-month rolling total.

- g. Permittee shall submit a written report of the results of the grab samples conducted during each reporting period with the semi-annual report required in Section §8.B

E. Compliance with Regulatory Limitations *[Mandated by 40 CFR §70.6(a)(3)]*

1. Non-instrumental emissions monitoring - oxides of nitrogen

As a surrogate measurement for monitoring emissions of oxides of nitrogen, Permittee shall maintain records reflecting total fuel consumption in the thermal oxidizers, ovens, engines, and other fuel burning equipment and the amount of VOC's sent to the thermal oxidizers. On an annual basis, no later than March 31st to adequately support the annual emission inventory, permittee shall calculate NO_x emissions based on the fuel records. For these calculations, Permittee shall use emission factors from the specific equipment manufacturer, if available, or otherwise, AP-42 or other factors as approved by the Director.

2. Non-instrumental emissions monitoring - Particulate matter.

a. Baghouses

Since the use of baghouses are required to limit the emissions authorized under this permit, the Permittee shall inspect the baghouses and final exhaust fan at least once each day that the equipment vented to baghouses is operational, to determine that the baghouses are operating properly. Records of these inspections shall be maintained.

b. Spray Booth

- I. At least once monthly, the Permittee shall check the spray booth pressure drop and record it in a log. If during any of these checks, the vacuum pressure has dropped below 0.05 inches of water, the Permittee shall investigate and record the curative action taken.
- ii. At least once weekly, the Permittee shall inspect the spray booth (process #430) filters to determine if they need to be repaired or replaced. Records of these inspections, repairs and replacements shall be maintained.

3. Opacity monitoring [Code §3-3-260.]

a. Stack Emissions (PGCAQCD Reg. 7-3-1.1 approved as a SIP element at 47 FR 15579 (6/16/80))

On at least a semi-annual basis, Permittee shall conduct a visual opacity screen performed on each process and fuel-burning exhaust stack. If visible emission in excess of 5% opacity are observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days. Submission of such a report may constitute cause to reopen this permit to add additional testing and/or control requirements.

b. Open-area Fugitive Emissions (PGCAQCD Reg. 7-3-1.1 approved as a SIP element at 47 FR 15579 (6/16/80))

On at least a semi-annual basis, Permittee shall conduct a visual opacity screen performed on the open areas of the facility. If visible emission are observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days. Submission of such a report may constitute cause to reopen this

permit to add additional testing and/or control requirements.

c. Baghouse and Exhaust Fans

On at least a semi-annual basis, Permittee shall conduct a visual opacity screen performed on the baghouse and exhaust fans. If visible emission in excess of 5% opacity are observed, Permittee shall investigate and report the cause and curative action taken within 10 days in accordance with the deviation reporting requirements of this permit.

d. Abrasive Blasting

On at least a semi-annual basis, Permittee shall conduct a visual opacity screen performed on the abrasive blasting operation. If visible emission in excess of 5% opacity are observed, Permittee shall investigate and report the cause and curative action taken within 10 days in accordance with the deviation reporting requirements of this permit.

4. NSPS monitoring -Polymeric Coating of Supporting Substrates **[40 CFR Parts 60.744(b), 60.747(b), 60.747(c)], Code §6-1-030.1 and a delegation from the EPA Administrator dated 2/24/93].**

Pursuant to NSPS Subpart VVV, for the UD Tapeline (#160) .and the ceramic prepreg line, Permittee shall:

- a. Make semiannual estimates of the projected annual amount of VOC to be used at the coating operation in that year; and
- b. Maintain records of actual VOC use, and
- c. Maintain records of the semiannual estimates of the projected VOC use, and
- d. Report the first semiannual estimate in which projected annual VOC use exceeds the applicable cutoff to the District; and,
- e. Report the first 12-month period in which the actual VOC use exceeds the applicable cutoff to the District.

5. NSPS monitoring - Volatile Organic Storage Tanks **[40 CFR Part 60.110b(b), Code §6-1-030.1 and a delegation from the EPA Administrator dated 2/24/93].**

Pursuant to NSPS Subpart Kb, since this facility does have affected volatile organic storage tanks with capacities above 10,470 gallons, but does not have any such tanks with a capacity above 19,632 gallons, Permittee shall retain on-site a record of the dimensions of the affected tanks, and a copy of a calculation showing the volumetric capacity of those affected tanks. Permittee need take no further action to comply with NSPS Subpart Kb.

6. Non-instrumental emissions monitoring - fuel sulfur

To verify compliance with the diesel fuel-sulfur limitations under this permit, Permittee shall either:

- a. Maintain a current supplier-certification that all fuel deliveries comply with the fuel-sulfur limitation; or
- b. Test each fuel shipment received to assess compliance.

7. Non-instrumental emissions monitoring - Solvent Cleaning VOCs (Code §5-15-640)

To verify that solvent changes do not inadvertently cause a net significant increase in VOC emissions, Permittee shall keep the following records:

- a. Type and total amount of make-up solvent used in all solvent cleaning operations.
- b. Determination of emissions from wipe cleaning, which may be made on a facility-wide rather than a per department basis.
- c. Amount of volatile organic compound(s) and of non-precursors (exempt) organic compound(s) contained in each solvent, expressed in pounds per gallon or grams per liter. Such records shall be retained for two years and shall be made available to the Control Officer upon request.

8. Other Reporting Obligations

- A. Deviation Reporting Requirements⁶ (Code §3-1-083.A.3.b) [*Mandated by 40 CFR §§70.6(a)(3)(iii)(B)*]

Permittee shall report any deviation from the requirements of this permit along with the probable cause for such deviation, and any corrective actions or preventative measures taken to the District within ten days of the deviation unless earlier notification is required by the provisions of this permit.

- B. Regular Compliance Reporting [*Mandated by 40 CFR §70.6(a)(3)*] (Code §3-1-083.A.3.a)

Permittee shall submit a semi-annual report containing a summary of the information required to be recorded pursuant to this permit, which summary shall clearly show whether or not Permittee has complied with the operational requirements and emissions limitations under this permit. All instances of deviations from permit requirements shall be clearly identified in such reports. For brevity, such deviation reports may incorporate by reference any written supplemental upset reports filed by Permittee during the reporting period. The report shall be submitted to the District within 30 days after the end of each calendar half. Appendix A of this permit is a form which may be used for the report.

- C. Regular Compliance/Compliance Progress Certification [*Mandated by 40 CFR §70.6(c)(5)*] (Code §3-1-083.A.4)

Permittee shall annually submit a certification of compliance with the provisions of this permit. The certification shall be separately submitted to both the District and to the Regional Administrator c/o Air Division Permits Office, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901. The certification shall:

1. Be signed by a responsible official, as defined in Code §3-1-030.18;
2. Identify each term or condition of the permit that is the basis of the certification;
3. State the compliance status with respect to each such term or condition;
4. State whether compliance with respect to each such term or condition has been continuous or intermittent;
5. Identify the method(s) used for determining the compliance status of the source, currently and over the reporting period; and
6. Be postmarked within thirty (30) days of the start of the calendar year.

⁶ Also see permit §10.P regarding reporting of "emergency" incidents.

D. Annual emissions inventory [Code §§3-1-103, 3-7-590.C.1.]

Since this source would be subject to an ADEQ permitting requirement, Permittee shall complete and submit to the District an annual emissions inventory, disclosing actual emissions for the preceding calendar year. The submittal shall be made on a form provided by the District. The inventory is due by the latter of March 31, or ninety (90) days after the form is furnished by the District.

9. **Fee Payment** [*Mandated by 40 CFR §§70.6(a)(7), 70.9*] (Code §3-1-081.A.9)

As an essential term of this permit, an annual permit fee shall be assessed by the District and paid by Permittee in accord with the provisions of Code Chapter 3, Article 7 generally, and Code §3-1-081.A.9 specifically. The annual permit fee shall be due on or before the anniversary date of the issuance of an individual permit, or formal grant of approval to operate under a general permit. The District will notify the Permittee of the amount to be due, as well as the specific date on which the fee is due.

10. **General Conditions**

A. Term [*Mandated by 40 CFR §70.6(a)(2)*] (Code §3-1-089)

This permit shall have a term of five (5) years, measured from the date of issuance.

B. Basic Obligation [*Mandated by 40 CFR §§70.4(b)(15), 70.6(a)(6)(I), 70.6(a)(6)(ii), 70.7.b*] (Code §3-1-081.)

1. The owner or operator ("Permittee") of the facilities shall operate them in compliance with all conditions of this permit, the Pinal County Air Quality Control District ("the District") Code of Regulations ("Code"), and consistent with all State and Federal laws, statutes, and codes relating to air quality that apply to these facilities. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application and may additionally constitute a violation of the Clean Air Act (1990).
2. All equipment, facilities, and systems used to achieve compliance with the terms and conditions of this permit shall at all times be maintained and operated in good working order.
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

C. Duty to Supplement Application [*Mandated by 40 CFR §§70.5(b), 70.6(a)(6)(v)*] (Code §3-1-081.A.8.e.)

Permittee shall furnish to the District within a reasonable time, which shall not exceed thirty days unless the Control Officer fixes some other time period for response, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking, reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required under this permit. For information claimed to be confidential, Permittee shall submit along with the requested information or records a showing as required under Code §3-1-120, and shall separately submit a full duplicate copy to the EPA Regional Office (Regional Administrator c/o Air Division Permits Office, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901).

D. Right to Enter [*Mandated by 40 CFR §70.6(c)(2)*] (Code §§ 3-1-083.A.6, 3-1-132)

Authorized representatives of the District shall, upon presentation of proper credentials and while observing reasonable standard safety requirements as set forth by the owner or operator of the source, be allowed for purposes of ascertaining compliance with this permit and with other applicable requirements:

1. to enter upon the premises where the source is located, where emissions-related activity is conducted, or in which any records are required to be kept under the terms and conditions of this permit;
2. to inspect any equipment, operation, or method required in this permit;
3. to sample or monitor emissions from the source, or other substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements;
4. to have access to and copy, at reasonable times, any records that are required to be kept under the terms of this permit; and
5. to record any inspection by use of written, electronic, magnetic and photographic media.

E. Transfer of Ownership **[Mandated by 40 CFR §70.7(d)(4)]** (Code §3-1-090)

This permit may be transferred under an administrative permit amendment from one person to another by notifying the District at least 30 days in advance of the transfer. The notice shall contain all the information and items required by Code § 3-1-090. The transfer may take place if not denied by the District within 10 days of the receipt of the transfer notification.

F. Posting of Permit (Code §3-1-100)

Permittee shall firmly affix the permit, an approved facsimile of the permit, or other approved identification bearing the permit number, upon such building, structure, facility or installation for which the permit was issued. In the event that such building, structure, facility or installation is so constructed or operated that the permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of the equipment or maintained readily available at all times on the operating premises.

G. Permit Revocation for Cause **[Mandated by 40 CFR §70.6(a)(6)(iii)]** (Code §3-1-140)

The Director of the District ("Director") may issue a notice of intent to revoke this permit for cause pursuant to Code §3-1-140, which cause shall include occurrence of any of the following:

1. The Director has reasonable cause to believe that the permit was obtained by fraud or material misrepresentation;
2. Permittee failed to disclose a material fact required by the permit application form or a regulation applicable to the permit;
3. The terms and conditions of the permit have been or are being violated.

H. Certification of Truth, Accuracy, and Completeness **[Mandated by 40 CFR §§70.5(a)(2), 70.6(a)(3)(iii)(B)] [Code §§3-1-083.A.5, 3-1-175 (as amended 10/12/95) approved as SIP Elements at 61 FR 15717 (4/9/96)]**

Any application form, report, or compliance certification submitted pursuant to the Code shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under Chapter 3 of the Code shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

I. Renewal of Permit **[Mandated by 40 CFR §§70.5(a)(1)(iii), 70.7(c)]** (Code §3-1-050.C.2)

Expiration of this permit will terminate the facility's right to operate unless either a timely application for renewal has been submitted in accordance with §§3-1-050, 3-1-055 and 3-1-060, or a substitute application for a general permit under §3-5-490. For Class I permit renewals, a timely application is one that is submitted at least 6 months, but not greater than 18 months prior to the date of the permit expiration. For Class II or Class III permit renewals, a timely application is one

that is submitted at least 3 months, but not greater than 12 months prior to the date of permit expiration.

J. Severability *[Mandated by 40 CFR §70.6(a)(5)]* (Code §3-1-081.A.7)

Pursuant to Code § 3-1-081.A.7., the provisions of this permit are severable, and if any provision of this permit is held invalid the remainder of this permit shall not be affected thereby.

K. Permit Shield *[Mandated by 40 CFR §70.6(f)]* (Code § 3-1-102.)

1. Generally

Subject to the following schedule of exclusions⁷, compliance with the terms of this permit shall be deemed compliance with any applicable requirement identified in this permit, including the Federally Enforceable requirements listed in Section 2. The permit-shield exclusions include:

- a. PGCAQCD Rule §7-2-1.8 ANTI-DEGRADATION;
- b. PGCAQCD Rule §7-3-1.3 OPEN BURNING;
- c. PGCAQCD Rule §7-3-4.1 INDUSTRIAL - CARBON MONOXIDE EMISSIONS;
- d. PGCAQCD Rule §7-1-2.6 RECORD KEEPING AND REPORTING;
- e. PCAQCD Rule §3-3-200 through §3-3-285 PERMIT REQUIREMENTS FOR NEW MAJOR SOURCES AND MAJOR MODIFICATIONS TO EXISTING MAJOR SOURCES.

2. NSPS Subpart VVV

The permit shield for Subpart VVV shall be void if the actual VOC emissions exceed the 95 Mg VOC threshold.

L. Permit Revisions *[Mandated by 40 CFR §70.7(d), 70.7(e)]* (Code Chapter 3, Article 2, specifically Code §3-1-081.A.8.c)

1. This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
2. Permit amendments, permit revisions, and changes made without a permit revision shall conform to the requirements in Article 2, Chapter 3, of the Code.

M. Permit Re-opening *[Mandated by 40 CFR §§70.6(a)(6)(iii), 70.7(f), 70.7(g)]* (Code §3-1-087.)

1. This permit shall be reopened if:

- a. Additional applicable requirements under the Clean Air Act (1990) become applicable to this source, and on that date, this permit has a remaining term of three or more years. Provided, that no such reopening under this subparagraph is required if the effective date of the newly applicable requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Code §3-1-089.C.
- b. The Control Officer determines that it contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of it;
- c. The Control Officer determines that it needs to be revised or revoked to assure

⁷ See the Technical Support Document for an explanation of the exclusions.

compliance with the applicable requirements; or

- d. The EPA Administrator finds that cause exists to terminate, modify, or revoke and reissue this permit.
2. If this permit must be reopened or revised, the District will notify the permittee in accord with Code §3-1-087.A.3.
- N. Record Retention *[Mandated by 40 CFR §70.6(a)(3)(ii)(B)]* (Code §3-1-083.A.2.b)
- Permittee shall retain for a period of five (5) years all documents required under this permit, including reports, monitoring data, support information, calibration and maintenance records, and all original recordings or physical records of required continuous monitoring instrumentation.
- O. Scope of License Conferred *[Mandated by 40 CFR §70.6(a)(6)(iv)]* (Code §3-1-081.A.8.d)
- This permit does not convey any property rights of any sort, or any exclusive privilege.
- P. Excess Emission Reports; Emergency Provision *[Mandated by 40 CFR §70.6(g)]* (Code §3-1-081.E, Code §8-1-030, A.R.S. §49-514)
1. To the extent Permittee may wish to offer a showing in mitigation of any potential penalty, underlying upset events resulting in excess emissions shall reported as follows:
 - a. The permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. Such report shall be in two parts:
 - I. Notifications by telephone or facsimile within 24 hours or the next business day, whichever is later, of the time when the owner or operator first learned of the occurrence of excess emissions, including all available information required under subparagraph b. below.
 - ii. Detailed written notification within 3 working days of the initial occurrence containing the information required under subparagraph b. below.
 - b. The excess emissions report shall contain the following information:
 - I. The identity of each stack or other emission point where the excess emissions occurred.
 - ii. The magnitude of the excess emissions expressed in the units of the applicable limitation.
 - iii. The time and duration or expected duration of the excess emissions.
 - iv. The identity of the equipment from which the excess emissions occurred.
 - v. The nature and cause of such emissions.
 - vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.
 - vii. The steps that were or are being taken to limit the excess emissions. To the extent this permit defines procedures governing operations during periods of start-up or malfunction, the report shall contain a list of steps taken to comply with this permit.

- viii. To the extent excess emissions are continuous or recurring, the initial notification shall include an estimate of the time the excess emissions will continue. Continued excess emissions beyond the estimated date will require an additional notification.
- 2. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 3. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of the following subparagraph are met.
- 4. The affirmative defense of emergency pursuant to A.R.S. §49-514 shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Control Officer by certified mail or hand delivery within 72 hours of the time when emissions limitations were exceeded due to emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

11. Provisions Specifically Designated as Not Federally Enforceable (Code §3-1-081.B.2)

Subject to the following specific exclusions, all terms and conditions of this permit are enforceable by the Administrator and citizens under the Clean Air Act. The exclusions include:

- A. Section 1. Introduction
- B. Section 6.B.32.b Opacity Limits (Not yet SIP-approved)
- C. Section 6.F Fuel Use Limitations (Not yet SIP-approved)
- D. Section 8.D Annual emissions inventory
- E. Section 10.F Posting of Permit
- F. ~~Section 13~~ ~~Emission Inventory Table~~

12. Equipment [Mandated by 40 CFR §70.5(c)(3)(ii)] (Code §3-1-050.B)

- A. Existing Equipment

EQUIP. NO.	EQUIPMENT NAME	MANUFACTURE R/DATE	SERIAL NO.	MODEL NO.	SIZE/CAPACITY
110A	CR III Washline	Hexcel/1994	NA	NA	110 fpm

EQUIP. NO.	EQUIPMENT NAME	MANUFACTURE R/DATE	SERIAL NO.	MODEL NO.	SIZE/CAPACITY
120A	PAA/Primer Line	2007	NA	NA	3 MMBTU/HR
120B	PAA Acid Fume Scrubber	Tri-Mer Corp/1995	3130	F/S-1	2000 cfm
130	Foil Coater	Hexcel/1995	NA	NA	40 fpm
140C	Continuous Carbon Corrugator #1	Rosenthal Sheeter/1996	80403	WM-3-HHEC-24	25 fpm
140D	F35 Corrugator	Hexcel/1994	NA	NA	5 fpm
140E	F50 Corrugator	Hexcel/1994	NA	NA	5 fpm
140F	Continuous Carbon Corrugator #2	Rosenthal Sheeter/1998	80565	WM-3-HHC-24	25 fpm
160	UD Tapeline	Hexcel/1997	NA	NA	5 fpm
210	#335 Printline	Hexcel/1968	NA	NA	1.2 MMBTU/HR
230A	#7 Printline	Hexcel/1966	NA	NA	1.2 MMBTU/HR
230B	Aluminum Printline		NA	NA	1.2 MMBTU/HR
240	Al Flexcore Machine	Hexcel/1994	NA	NA	45,000 BTU/HR
250	CNF Machine	Hexcel/1993	NA	NA	1000 °F
260A	HRP Glue Line	Hexcel/1975	NA	NA	30 fpm
260B	HTP Glue Line	Hexcel/2000	NA	NA	30 fpm
260C	Acousti-Cap Dip/Blot Machine #1.	2006	NA	NA	
270A	Aluminum Corrugator	La Young Co./1970	27505	NA	10-15 fpm
270B	Aluminum Corrugator P/C Oven	Mayberry/1997	NA	NA	1.6 BTU/HR
280A	Graphite/HRP Printing & Layup	1994	NA	NA	Various layup tables
280B	Graphite/HRP Roll Coater	Black Brow./1996	196321	NA	15 fpm
280C	Graphite/HRP Roll Coater	Black Bros./1997	200985	NA	15 fpm
310	Tapeline (Steec)	Eclipse/1977	NA	NA	375 °F
410B	Dip Tank Center	Hexcel/1966	NA	NA	1500 Gallons
410C	Dip Tank South (2)	Hexcel/1982	NA	NA	1000 Gallons
410D	Dip Tank East	Southwest/1984	84-616	NA	4388 Gallons
410E	Skybond Dip Tank	Skybond/1995	NA	NA	300 Gallons
410F	Dip Room Blow Out Rack	Hexcel/1985	NA	NA	3000 cfm
410G	F124 Dip Tank	Hexcel 2009	NA	NA	500 Gallons
410H	Northeast Dip Tank	Hexcel/1966	NA	NA	4000 Gallons
410K	F660 Dip Tank	2009	NA	NA	300 gallons
410L	R169 Dip Tank #2	2009			
420	Flow Coat Booth	Hexcel/1984	NA	NA	15.5 cfm

430	Building 73 Spray Booth	Hexcel/1973	NA	NA	5000 cfm
440A	Purge/Cure Oven #7	Southwest/1984	84-613	NA	23 HP
440B	Purge/Cure Oven #8	Southwest/1985	85-449	NA	26 HP
440C	Purge/Cure Oven #9	Despatch/1985	135565	NA	26 HP
440D	Purge/Cure Oven #10	Despatch/1986	135886-87	NA	26 HP
440E	Purge/Cure Oven #11	Despatch/1986	135887-87	NA	26 HP
440F	Purge/Cure Oven #12	Southwest/1986	86-222	NA	26 HP
440G	Purge/Cure Oven #13	Young & Bertke/1994	NA	NA	26 HP
440H	Purge/Cure Oven #14	Young & Bertke/1994	NA	NA	26 HP
440I	Purge/Cure Oven #15	Young & Bertke/1994	NA	NA	26 HP
440J	Purge/Cure Oven #16	Young & Bertke/1994	NA	NA	26 HP
440K	Purge/Cure Oven #17	Southwest Systems/1998	NA	NA	50 HP
440L	Purge/Cure Oven #18	Southwest Systems/1998	NA	NA	50 HP
440M	Purge/Cure Oven #19	Southwest Systems/1999	NA	NA	50 HP
440N	Purge/Cure Oven #20	Southwest Systems/1999	NA	NA	50 HP
440P	Purge/Cure Oven #21	Southwest Systems/1999	NA	NA	50 HP
457	Purge/Cure Oven #22	2006	NA		50 HP
458	Purge/Cure Oven #23(double oven)	2006	NA	NA	100 HP
459	Purge/Cure Oven #24	2007	NA	NA	4.8 MMBtu/hr
460A	Prime Cure Oven #121	Southwest/1968	82-22	NA	200,000 BTU/HR
460B	Prime Cure Oven #122	Mayberry/1998	97-31	NA	1.6 MMBTU/HR
460C	Cure Oven #4	Hexcel Asset #7376			4.0 MMBTU/HR
470A	Graphite Oven #1	Despatch/1994	68211	NA	1.5 MMBTU/HR
470B	Graphite Oven #4	Despatch/1994	89-112	NA	1.0 MMBTU/HR
470C	Graphite Oven #5	Mayberry/1998	97-15	NA	4.0 MMBTU/HR
480	Purge/Cure Oven #25	2008	NA	NA	4.8 MMBTU/HR
481	Purge/Cure Oven #26	2009	NA	NA	4.8 MMBTU/HR
482	Purge/Cure Oven #27	2009	NA	NA	4.8 MMBTU/HR
483	Purge/Cure Oven #28	2009	NA	NA	4.8 MMBTU/HR
490	Block Oven Carts (4)	2009			
510A	#1 Dust Collector	Torit-Donaldson/2001	IG648137	138HP11	11,000 CFM

510B	#2 Dust Collector	Torit-Donaldson/1988	106121	48-HPT8	6300 CFM
510C	#3 Dust Collector	Torit-Donaldson/1998	16510577	96-HPT8	5000 CFM
510D	#4 Dust Collector	Farr Co./1998	95DC22928	116771-1	1000 CFM
510E	#5 Dust Collector	Torit-Donaldson/1995	IGO 47276	3DF6	5000 CFM
520A	Vacuum Bond Oven	Wisconsin Oven/1991	NA	NA	1.5 MMBTU/HR
520B	Stress Relief Oven	1995	Asset #216-1	NA	1.8 MMBTU/HR
520C	Heat Form Oven	Southwest/1985	NA	NA	1.6 MMBTU/HR
520F	Graphite Oven #6	Mayberry/1998	98-20	NA	1.5 MMBTU/HR
520J	Product Forming Oven				1.0 MMBTU/HR
530A	Septum Insertion Machine #1	2006	NA	NA	
530B	Septum Insertion Machine #2	2006	NA	NA	
530C	Septum Adhesive Cure Machine	2006	NA	NA	
530D	ACAP Machine (Dip/Blot)	2009			
550A	Femco #1 Saw	Femco/1967	Asset #730004	NA	10 HP
550B	Femco #2 Saw	Femco/1967	60048-7597-80	A14-64	10 HP
550C	Femco #3 Saw	Femco/1985	NA	NA	10 HP
550D	Femco #4 Saw	Femco/1990	NA	NA	58"X120"X40"
550E	Blow Out Booth	Donaldson Co./1989	NA	ECB-3	100 fpm, 9 hp
550G	Trim Saw	Do-All/1966	36463899	V36	120"X40"X72"
550H	197 Saw	Do-All/1975	Asset #730006	NA	10 HP
550I	720 Graphite Saw	Woodward & Powell/1975	Asset #660004	NA	10 hp
550J	Femco #5 Saw	Femco/1998	146226	NA	
550K	CN Router	Accu-Router/1998	9046A001	46A	
550L	Femco #6 Saw	Femco/1998	NA	A-14	
550M	Femco #7 Saw	Femco/2000	00405	NA	
610B	Thermal Oxidizer #2	Airex/1999	228130-RT02067	30.ORT095	8.5 MMBTU/HR
610C	Thermal Oxidizer #3	Adwest/2007	2232	48.ORTO	50 MMBTU/HR
610D	Thermal Oxidizer #4	Adwest/2007	2233	480.RTO	50 MMBTU/HR
620A	Steam Boiler #1	Hurst/2000	S-400-250-1	NA	2.7 MMBTU/HR
620B	Steam Boiler #2	Hurst/2001	S-400-250-2	UNK	2.7 MMBTU/HR
620C	Steam Boiler #3	Eclipse/1974	43777	80SMGL-FSFM	2.7 MMBTU/HR
620D	Steam Boiler #4	Holman Bros./1997	7906	NA	3.3 MMBTU/HR
620E	Steam Boiler #5	Kewanee/1997	P7849	H35-200-G0	6.7 MMBTU/HR

630A	Hot Oil Heater #1	Fulton/1984	1359C	FT-0600-C	7.7 MMBTU/HR
630B	Hot Oil Heater #2	Fulton/1994	2322C	FT-0600-C	7.7 MMBTU/HR
630C	Hot Oil Heater #3	Fulton/1998	2754C	FT-0600-C	7.7 MMBTU/HR
640A	Chiller Engine A	Tecochill/1996	00383	150 TON	1.42 MMBTU/HR
640B	Chiller Engine B	Tecochill/1996	00381	150 TON	1.42 MMBTU/HR
650A	UST #16	BMT Corp/1988	94995	UL58/STI-P3	10,000 GALLONS
650B	UST #17	BMT Corp/1988	94996	UL58/STI-P3	10,000 GALLONS
650C	UST #18	BMT Corp/1988	94997	UL58/STI-P3	8,000 GALLONS
650D	UST #19	BMT Corp/1988	94998	UL58/STI-P3	8,000 GALLONS
650E	UST #20	BMT Corp/1988	94999	UL58/STI-P3	4,000 GALLONS
650F	UST #21	BMT Corp/1988	95000	UL58/STI-P3	4,000 GALLONS
650G	UST #22	Nogales Tank & Steel/1997	242277	STI-P3	12,000 GALLONS
650H	UST #23	Nogales Tank & Steel/1997	242278	STI-P3	12,000 GALLONS
650I	UST #24	Nogales Tank & Steel/1997	242276	STI-P3	12,000 GALLONS
660B	Hot Water Boiler #2	Teledyne Laars/2000	NA	HH3600EN09K	3.6 MMBUT/HR
NONE	Direct Contact Water Heater		090935175	DC-1-50	
1000	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
10001	Partwasher - Cold Degreaser/Cleaner				38 GALLONS
1002	Partwasher - Cold Degreaser/Cleaner				28 GALLONS
1003	Part Washer - Remote reservoir				30 GALLONS
1004	Partwasher - Cold Degreaser/Cleaner				38 GALLONS
1005	Partwasher - Cold Degreaser/Cleaner				28 GALLONS
1006	Partwasher - Cold Degreaser/Cleaner				38 GALLONS
1007	Partwasher - Cold Degreaser/Cleaner				28 GALLONS
1008	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
1009	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
1010	Partwasher-Remote Reservoir				55 GALLONS
1011	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
1013	Partwasher - Cold Degreaser/Cleaner				38 GALLONS

1014	Partwasher - Cold Degreaser/Cleaner				40 GALLONS
1015	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
1016	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
1017	Partwasher - Cold Degreaser/Cleaner				28 GALLONS
1018	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
1019	Partwasher - Cold Degreaser/Cleaner				13 GALLONS
1020	Partwasher - Cold Degreaser/Cleaner				38 GALLONS
1021	Partwasher - Cold Degreaser/Cleaner				19 GALLONS
NONE	Emergency Generator	Caterpillar/2001	NA	NA	1341 HP
NONE	Emergency Air Compressor	John Deere/2001	NA	NA	80 HP
NONE	Compact-Therm Thermal/Catalytic Oxidizer Soil Vapor Extraction Unit	Soil Therm		2002 Jet-Therm burner	385,000 Btu/hr (thermal) and 700 scfm

13. Emission Inventory Table

The technical support document for this permit revision, as well as TSDs for previous revisions include tables with proposed emissions from this facility;

Appendix A

Semi-annual Report

Permit V20639.R01

Abstract

This constitutes a semi-annual report of all required monitoring, documenting emissions during the subject reporting period.

Reporting Period - January-June ___ Or July-December ___ Year _____

Facility - Hexcel Corporation
1214 W. Gila Bend Hwy 84, Casa Grande, Arizona

Parametric emissions report

Natural gas burned during reporting period _____ therms

Emergency generator operating time _____ hours

Emergency air compressor operating time _____ hours

Emissions report

Volatile organic compounds emitted during reporting period _____ Tons

Per NSPS Subpart VVV, do projected VOCs exceed 95 Mg (104.72 tons) per 12-month period? YES / NO

Per NSPS Subpart VVV, do actual VOCs exceed 95 Mg (104.72 tons) per 12-month period? YES / NO

HAP emission report Total HAPs _____ tons

..... Single HAP (highest single HAP) _____ tons

Operations report

Has Permittee:

Maintained records required under §7.A.2 (generic recordkeeping)? YES / NO

Maintained records required under §7.B.2.a (Hours of operation)? YES / NO

Maintained records required under §7.B.2.b (Monthly calculation of annual NO_x emissions)? YES / NO

Reported all changes in VOC-containing materials in accordance with §7.B.4? YES / NO

At calendar year-end, conducted the assessment required under §7.C.2.b (Screen for unit-specific emissions above 2% threshold)? YES / NO

Maintained monthly records required under §7.C.3 (VOC mass balance accounting)? YES / NO

Maintained records of inspections required under §7.C.4 (RTO inspections)? . YES / NO

Is a report included with all the results of the SVEU grab samples required under §7.D.4

(SVEU Monitoring/Recordkeeping) YES / NO

Maintained records required under §7.E.2 (baghouse inspections)? YES / NO

Maintained monthly records required under §7.E.3 (periodic opacity screening) YES / NO

Maintained the records required under §7.E.4? (NSPS Subpart VVV monitoring requirements) YES / NO

Maintained the records required under §7.E.5 (NSPS Subpart Kb monitoring requirements) YES / NO

Submitted all reports required under §8.A? (Upset reports) YES / NO

During the reporting period, did Permittee comply with any applicable testing requirements that came due under §7? YES / NO

On a separate sheet, describe and explain any monitoring activity or recordkeeping that occurred with respect to the Asbestos NESHAP or Stratospheric Ozone requirements respectively defined in §§5.F.1 and 5.F.2 of the permit during the reporting period.

Is such a supplemental disclosure attached? YES / NO

On a separate sheet, describe and explain any previously un-reported deviations from the terms of this permit. Is such a supplemental disclosure attached? YES / NO

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, that the statements and information in this report are true, accurate and complete.

Signed _____

Printed Name _____

Title _____

Date _____

Contact Phone Number _____

Mail to - Pinal County Air Quality Control District
PO Box 987
Florence, AZ 85132

Appendix B

INSIGNIFICANT ACTIVITIES

A. General information (Code §§ 1-3-140.74A, 3-1-050)

1. An insignificant is one which accounts for less than 1 percent of a source's emissions of conventional air pollutants or generates less than 200 pounds per year of regulated air pollutants. Additionally, an activity specifically listed as such in the Code is insignificant.
2. Permit application need not provide emissions data regarding insignificant activities and such activities need not be listed in the permit. Insignificant activities need only be listed in the permit application.

B. Non-exclusive list of insignificant activities.

Activities which may generate emissions in insignificant amounts include but are not limited to the following:

1. Short term maintenance activities including but not limited to:
 - a. Abrasive blasting
 - b. Painting
 - c. Solvent use
 - d. Steam cleaning
 - e. Equipment removal and replacement
 - f. Welding, brazing, and soldering operations
2. Operation of lab equipment
3. Operation of cooling water, plant water, wastewater, and other water systems.
4. Emissions from testing and sampling
5. Research and development facilities
6. Storage of chemicals and fuels
7. Operation of emergency and standby equipment rated at less than 325 brake horsepower and used less than 72 hours per year.