United States Environmental Protection Agency
Region 10, Office of Air, Waste and Toxics
AWT-107
1200 Sixth Avenue
Seattle, Washington 98101

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Technical Support Document
Non-Title V Air Quality Operating Permit

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AMTECH Corporation

Yakama Reservation
Wapato, Washington

Purpose of Owner-Requested Non-Title V Operating Permit and Technical Support Document

Title 40 Code of Federal Regulations Section 49.139 establishes a permitting program to provide for the establishment of Federally-enforceable requirements for air pollution sources located within Indian reservations in Idaho, Oregon and Washington. The owner or operator of an air pollution source who wishes to obtain a Federally-enforceable limitation on the source's actual emissions or potential to emit must submit an application to the Regional Administrator requesting such limitation.

The United States Environmental Protection Agency (EPA) then develops the permit via a public process. The permit remains in effect until it is modified, revoked or terminated by EPA in writing.

This document, the technical support document, fulfils the requirement of 40 CFR § 49.139(c)(3) by describing the proposed limitation and its effect on the actual emissions and/or potential to emit of the air pollution source. Unlike the air quality operating permit, this document is not legally enforceable. The permittee is obligated to follow the terms of the permit. Any errors or omissions in the summaries provided here do not excuse the permittee from the requirements of the permit.

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1. EPA Authority to Issue Non-Title V Permits

On April 8, 2005 EPA adopted regulations (70 FR 18074) codified at 40 CFR Parts 9 and 49, establishing Federal Implementation Plans (FIPs) under the Clean Air Act for Indian reservations in Idaho, Oregon and Washington. The FIPs, commonly referred to as the Federal Air Rules for Reservations (FARR), put in place basic air quality regulations to protect health and welfare on Indian reservations located in the Pacific Northwest. 40 CFR § 49.139 creates a permitting program for establishing Federally-enforceable requirements for air pollution sources on Indian reservations. This permit has been developed pursuant to 40 CFR § 49.139.

2. Facility Information

2.1 Location

The AMTECH Corporation facility is located just north of Wapato, Washington, and immediately east of Highway 97. The facility is within the outer boundaries of the Yakama Reservation.

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2.2 Local Air Quality and Attainment Status

The Yakama Reservation is in attainment with the national ambient air quality standards or is unclassifiable. The subject facility is not located in a designated nonattainment area. With respect to prevention of significant deterioration (PSD) impact evaluation, the majority of the reservation is classified as Class II lands, except for a small portion in the western part of the reservation, located within the boundary of the Mt. Adams National Wilderness Area, which is designated as Class I.

2.3 General Description of Operations and Products

The AMTECH Wapato plant produces a number of custom components for military, industrial and commercial products such as recreational vehicle motor home parts, spas, military vehicle hard tops, bus parts, lavatory bath modules, food storage components for mobile food service vehicles and industrial lift parts. The types of products made at AMTECH vary with market demands. The process involves fabrication of products from liquid polyester resin reinforced with glass fibers and extended with various inorganic filler materials. The composite materials are often referred to as fiberglass-reinforced plastic (FRP) or fiberglass. Custom FRP products manufacturing requires the use of more types of resins and gel coats than what is used in an assembly line FRP products manufacturing plant such as those plants that only manufacture one or two products like tubs and showers.

The Wapato facility currently conducts the following operations (all uncontrolled for emissions of VOC) that have the potential to emit regulated air pollutants:

1. Open molding and resin mixing operations;
2. Cleaning of equipment used in open molding and resin mixing operations;
3. Resin storage tank;

4. Material storage (storage of resin and other materials in open or partially-open containers);
5. Repair operations on manufactured parts and on molds;
6. Closed mold operations (resin transfer molding);
7. Vacuum forming;
8. Application of spa foam;
9. Support activities (grinding and sanding of manufactured parts, woodshop, painting of fiberglass, plastic and metal parts outside a spray booth, and maintenance activities); and
10. Combustion devices – natural gas-fired space heaters and make-up air units:

    a) 5 space heaters, general plant, 230,000 Btu/hr each;
    b) 3 space heaters, general plant, 300,000 Btu/hr each;
    c) 2 space heaters, lunch room, 140,000 Btu/hr each;
    d) 2 space heaters, offices, 100,000 Btu/hr each;
    e) Make-up air unit, lamination area, 2.527 MMBtu/hr;
    f) Make-up air unit, lamination area, 1.5552 MMBtu/hr;
    g) Make-up air unit, gelcoat area, 1.5552 MMBtu/hr.

The Wapato facility also plans to add the following operations (all with no VOC emission controls):

1. Additional open molding capacity;
2. Vacuum infusion (a closed mold operation);
3. Painting of fiberglass, plastic and metal parts inside a spray booth
4. Heater, for paint booth, natural gas or propane, 1.5 MMBtu/hr; and
5. Make-up air unit, future lamination, 1.775 MMBtu/hr.

The facility SIC code is: 3089 Plastic Products, Not Elsewhere Classified.

3. Project Description

On October 3, 2005, EPA received an application from AMTECH Corporation regarding their Wapato facility. In the application, AMTECH requested two emission limits:

1. Limit hazardous air pollutant (HAP) emissions from processes at AMTECH Wapato that are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for reinforced plastic composites production (i.e. 40 CFR Part 63, Subpart WWWW) to no more than 99 tons per year (tpy); and
2. Limit volatile organic compound (VOC) emissions from AMTECH Wapato to no more than 249 tpy.

AMTECH requested the HAP limit in order to avoid becoming subject to a provision of Subpart WWWW that requires the use of pollution control measures. In its application, AMTECH indicated that AMTECH wished to avoid the "requirements of 40 CFR 63.5805(d) and requests that EPA impose a federally enforceable limit on the AMTECH HAP emissions from open molding and mixing operations subject to WWWW of no more than 99 tpy." As discussed in Section 4.1, AMTECH has since withdrawn their request for a HAP limit. The permit does not contain any limit on HAP emissions.

AMTECH requested the VOC limit in order to establish itself as a minor source of VOC emissions for the Prevention of Significant Deterioration (PSD) program.

4. Regulatory Analysis and Permit Content

4.1 Evaluation of HAP Limit Request

40 CFR Part 63, Subpart WWWW applies to the following activities that exist at AMTECH Wapato:

1. Open molding;
2. Cleaning of equipment used in reinforced plastic composites manufacture;
3. HAP-containing materials storage; and
4. Repair operations on parts manufactured at AMTECH Wapato.

Based on an affected source's actual emissions for a specified 12-month period, the source is required to comply with one of several standards in 40 CFR § 63.5805. AMTECH wishes to avoid being subject to the requirements of 40 CFR § 63.5805(d), which requires controls of at least 95% efficiency. In this application, AMTECH has requested an enforceable limit on HAP emissions of 99 tpy. 40 CFR § 63.5799(b) contains a provision for existing facilities to assume an enforceable permit limit, but contains no such provision for new facilities. Based on the definitions in 40 CFR § 63.5795(a), AMTECH Wapato would be considered a new facility. For a new facility, applicability of 40 CFR § 63.5805(d) is determined, as specified in 40 CFR § 63.5805, by the process described in 40 CFR § 63.5799(b). An enforceable limit issued under authority of the FARR will not be able to avoid applicability of the requirements of 40 CFR § 63.5805(d) to AMTECH Wapato's lamination operations. AMTECH must use the procedures in 40 CFR § 63.5799(b) to determine applicability of 40 CFR § 63.5805(d).

As requested, however, EPA can still issue a FARR non-operating permit with a HAP limit, although the limit would not enable AMTECH Wapato to avoid applicability of 40 CFR § 63.5805(d). When apprised of their options, AMTECH representatives, in an e-mail dated November 7, 2005, decided to withdraw their request for a HAP limit. Consequently, the permit contains no limits on HAP emissions.

4.2 Evaluation of VOC Limit Request

Under the PSD program, 40 CFR § 52.21, no "major stationary source" or "major modification" to a major stationary source can begin actual construction without first obtaining a PSD permit that meets the requirements of 40 CFR § 52.21. As AMTECH is not in one of the source categories named in 40 CFR § 52.21(b)(1)(i)(a), it would be considered a major stationary source for purposes of the PSD program only if it has a potential to emit (PTE) of at least 250 tons per year of any single PSD regulated air pollutant.

Based on AMTECH's application, actual VOC emissions for the 12-month period ending on June 05, 2005 were 44 tpy. During this period, the facility operated 12 hours a day, five days a week, 52 weeks a year – i.e. 3120 hours per year. AMTECH suggests that if the facility were operated 8760 hours per year, VOC emissions would be about 124 tpy, and that this reflects facility PTE.

Unlimited operation of spray coatings usually results in a PTE above 250 tpy. In AMTECH's case, however, continuous application of coating is not possible for a number of reasons:

1. Gelcoated molds must be moved out of the application area in order to bring empty molds into the application area;
2. Empty molds must be brought into the gel-coat application area;
3. Since AMTECH is a custom fabricator (as opposed to a large volume mass producer), gel-coats must periodically be changed out to spray a different gel-coat product;
4. Gel-coated molds must be moved to the lamination area;
5. Molds with lamination must be moved to a separate area for curing;
6. Molds must be emptied and readied for the next application.

Clearly, the facility's VOC PTE is less than estimated by continuous application of resin because of the physical limitations itemized above. The actual emissions of 44 tpy probably reflect the inherent limitations itemized above, as well as some operational practices that cannot be construed as physical limitations or as enforceable limitations. Factors such as streamlining of operations, increased staffing levels or increased staff experience could result in further productivity gains, resulting in slightly higher emissions. However, it is unlikely that this facility's PTE would increase enough above the 124 tpy for AMTECH to be considered a major source for PSD. Consequently, EPA concludes that the AMTECH Wapato facility is currently not a major stationary source of VOC for PSD purposes.

If the current facility is not major for PSD, a proposed modification at AMTECH can be considered to be a new major stationary source for VOC if the proposed modification, by itself, has a PTE of at least 250 tpy of VOC.

AMTECH has estimated that the proposed plant expansion (i.e. addition of an open lamination station and a spray booth) would result in a maximum emissions increase of 62 tpy from the open lamination area and 85 tpy from the spray booth. AMTECH's estimate of 62 tpy is extrapolated from their estimate of current PTE (based on a 50% increase over current operations). As noted earlier in this section, because of operational logistics, this is probably a reasonable estimate of PTE for the added lamination station. However, EPA believes that AMTECH's estimate of PTE of VOC for the spray booth is too low, as it is based on painting a specific number of helmet hard tops. As a custom production operation, in the future, AMTECH could easily take on additional product lines or contract out coating of parts manufactured elsewhere. As a result, PTE must be estimated considering the physical capability of the spray booth rather than based on expected maximum operation. This would almost certainly qualify as a new major stationary source, thereby making the proposed plant expansion subject to the requirements of PSD permitting. To ensure that the proposed plant expansion, together with existing operations, remain below PSD major source thresholds for VOC, AMTECH has asked for an enforceable permit limit of 249 tpy. This permit limit would apply to the entire AMTECH Wapato facility, including all the activities listed in Section 2.3.

The evaluation above applies to only VOC and for the equipment additions listed in Section 2.3. In their application, AMTECH did not submit an emission inventory for pollutants other than VOC. Consequently, EPA has not evaluated whether AMTECH Wapato is currently a major stationary source for any pollutants other than VOC. If in fact AMTECH Wapato's PTE for any other pollutant does exceed 250 tpy, AMTECH would be subject to PSD for the proposed expansion. Given the nature of operations at this facility, it is unlikely that the facility's current PTE of other pollutants exceeds 250 tpy or that the PTE of other pollutants from AMTECH's proposed expansion would exceed 250 tpy. Although the risk of triggering PSD review is small, this is a risk that AMTECH has opted to take. AMTECH was advised that this review is only valid for VOC and for the proposed change listed in Section 2.3. In addition, even with respect to VOC, any future physical change or change in the method of operation, aside from the proposed changes discussed in Section 2.3, must be evaluated to determine PSD applicability.

PSD and PSD-avoidance limits require compliance assurance on a rolling 12-month basis. The monitoring, recordkeeping and reporting for this permit will require the estimation of emissions from all of the above activities at least once a month. Details on the compliance assurance process are discussed in Section 4.4.

4.3 Other Federal Regulations

Endangered Species Act (ESA) Impacts - EPA is obligated to consider the impact that a federal project may have on listed species or critical habitats. Based on the fact that the permit contains a voluntarily-

requested emission limit, it is EPA's conclusion that the issuance of this permit to AMTECH Wapato will not affect a listed specie or critical habitat. Therefore, no additional requirements will be added to this permit for ESA reasons. EPA's no effect determination concludes EPA's obligations under Section 7 of the ESA. (See Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act, FWS and NMFS, March 1998, at Figure 1).

National Environmental Policy Act (NEPA) Review - Under Section 793(c) of the Energy Supply and Environmental Coordination Act of 1974, no action taken under the Clean Air Act shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. This permit is an action taken under regulations implementing the Clean Air Act and is therefore exempt from NEPA.

National Historic Preservation Act (NHPA) – No part of the AMTECH facility is listed in the National Register. The existing building will be modified by the addition of a 29 ft by 14 ft structure. The new addition will be installed on ground that is currently paved. Consequently, no adverse effects are expected, and further review under NHPA is not indicated.

4.4 Permit Content

The permit includes the requested emission limit as well as monitoring, recordkeeping and reporting requirements necessary to assure compliance with the limit. Each section of the permit is discussed below. The permit is organized into four sections as follow:

4.4.1 Permit Section 1: General Conditions

This section of the permit contains conditions of a general nature that apply to the facility. Permit Condition 1.1 requires AMTECH Wapato to comply with the conditions in the permit.

This permit establishes owner-requested limits and related compliance assurance provisions to restrict AMTECH Wapato's potential to emit VOC. It does not contain other Clean Air Act requirements to which the AMTECH Wapato facility is or may be subject, such as the FARR; New Source Performance Standards, 40 CFR Part 60, National Emissions Standards for Hazardous Air Pollutants, 40 CFR Part 61 and 63; and the Title V operating permit program, 40 CFR Part 71. As specified in Permit Condition 1.2, compliance with the terms of this permit in no way relieves or exempts AMTECH Wapato of compliance with other applicable Clean Air Act requirements or of any other applicable federal, tribal, state, or local law or regulation.

Permit Condition 1.3 addresses a provision (40 CFR § 52.21(r)(4)) of the PSD regulations regarding emission limits established to avoid PSD requirements. If in the future, AMTECH Wapato obtains a relaxation of the VOC limit in Permit Condition 2.1, and the plant expansion addressed in this permit action is later found to be a new major stationary source solely due to the relaxation of the emission limit, then the PSD provisions of 40 CFR § 52.21(j) through (s) would apply to AMTECH Wapato as though the plant expansion had never taken place. This could result in the imposition of Best Available Control Technology that is difficult or expensive to retrofit. Consequently, if in the future, any relaxation to the VOC limit in Permit Condition 2.1 is being contemplated, it is recommended that AMTECH thoroughly evaluate any potential PSD applicability.

4.4.2 Permit Section 2: Emission Limits and Work Practice Requirements

This section of the permit contains any emissions limits or work practice requirements that have been

established as a result of the subject permit action. As discussed earlier, in Sections 4.1 and 4.2, for this permit action, the only limit established is the 249 tpy VOC limit.

4.4.3 Permit Section 3: Monitoring and Recordkeeping Requirements

Permit Condition 3.1 requires AMTECH to calculate monthly emissions every month. The rolling 12-month emissions must be determined by adding the emissions calculated for the most recent month with the emissions for the immediately preceding 11 months. Emissions are to be calculated from the entire facility, including, but not limited to, the activities listed in Section 2.3. The following paragraphs describe accepted emissions calculation methods for the emission units discussed in Section 2.3. It is EPA's expectation that AMTECH will use the emission estimating techniques set forth in this section unless AMTECH has other information showing why another technique more accurately represents its emissions.

Open molding operations: At present, there is no single emission factor for emissions of VOC from open molding operations. Instead, the emission estimation method involves determining an emission factor based on the content (in the resin) of organic HAPs, all of which are VOCs. The most common HAPs from lamination and gelcoat operations are styrene and methyl methacrylate. The emission factor determination method is the same as specified in the reinforced plastic composites production MACT (40 CFR Part 63, Subpart WWWW).

The permittee is expected to determine monthly VOC emissions (tons) from open molding operations by aggregating the monthly emissions of styrene, methyl methacrylate and any other organic hazardous air pollutant, calculated as follows:

1. Monthly emissions (tons) of all organic hazardous air pollutants from gelcoat operations are determined by multiplying monthly gelcoat usage (tons) by the corresponding emission factor for atomized spray gelcoat application, as specified in Table 1 to 40 CFR Part 63, Subpart WWWW, and dividing by 2,000; and
2. Monthly emissions (tons) of all organic hazardous air pollutants from fiber reinforced resin operations are determined by multiplying monthly resin usage (tons) by the corresponding emission factor for nonatomized, mechanical resin application, as specified in Table 1 to 40 CFR Part 63, Subpart WWWW, and dividing by 2,000.

Resin mixing operations: Emissions from resin mixing operations and from open containers can be determined by the methodology listed in the Environmental Inventory Improvement Project, Volume II, Chapter 8: Methods for Estimating Air Emissions from Paint, Ink and Other Coating Manufacturing Facilities, February 2005:

The permittee is expected to determine monthly VOC emissions (tons) from mixing of resin or gelcoat by aggregating the monthly emissions of each VOC species and resin or gelcoat mixed. Monthly emissions of each VOC species are determined using the equation below to calculate each emission factor.

$$E_O = \frac{M_O \times K_O \times A \times P_O \times 3600 \times H \times B}{R \times T \times 2000}$$

where

E_O = emissions of VOC species (ton/month)
M_O = molecular weight of VOC species O (lb/lb-mole)
K_O = gas-phase mass transfer coefficient for VOC species (ft/sec)
A = surface area of exposure or opening (ft^2)

P_O	=	true vapor pressure of VOC species O (if a pure chemical is used) or the partial pressure of chemical O (if a mixture of VOCs is used) at temperature T (psia)
3600	=	3600 sec/hr
H	=	batch time (hr/batch)
T	=	temperature of the liquid (degrees Rankine (^{0}R))
R	=	universal gas constant at 1 atmosphere of pressure, 10.73 psia-ft^3/^{0}R-lb mole
2000	=	2000 lb/ton
B	=	number of batches per month

K_O is determined by calculating as follows:

$$K_O = 0.00438 \times U^{0.78} \times (18/M_O)^{1/3}$$

where

U	=	wind speed (mile/hr)
M_O	=	molecular weight of VOC species O (lb/lb-mole)

If a mixture of VOC is used, the partial pressure P_O is determined as follows:

$$P_O = m_O \times VP_O$$

where

m_O	=	liquid mole fraction of VOC species O (mole/mole)
VP_O	=	true vapor pressure of VOC species O (psia)

Open or partially-open containers: The monthly VOC emissions (tons) from the storage of resin and other VOC-containing materials in open or partially-open containers (materials storage) are determined by using the methodology specified for resin mixing operations, except that the following terms have the meaning specified below:

H	=	hours per month that container was used to store material (hr/month)
B	=	1

Cleaning of equipment used in open molding and mixing operations: Emissions from cleaning of equipment used in open molding and mixing operations can be calculated from the VOC content of the cleaning materials. As solvent-based cleaners are used to clean the equipment, this methodology assumes that the total VOC content of the cleaners is lost by evaporation. The VOC content of the cleaners are available from Material Safety Data Sheets provided by the product manufacturer.

The permittee is expected to determine monthly VOC emissions (tons) from the cleaning of equipment used in open molding and mixing operations by first determining an emission factor for each cleaning material. The emission factor to be used is the VOC content (lbs/gallon) listed in each product Material Safety Data Sheet, or otherwise available from the product vendor. Many Material Safety Data Sheets list VOC content less water and exempt solvents – this is not the value to be used for this purpose as it will serve to overestimate emissions. The permittee should take care to use the VOC content that includes water and exempt solvents. The Monthly VOC emissions (tons) can then be calculated by multiplying the cleaning material monthly usage (gallons) by the emission factor (lbs/gallon) for the cleaning material, and dividing by 2000 (lb/ton).

Resin storage tank: Monthly VOC emissions (tons) from the storage of resin in the resin storage tank are determined by using one of the methods specified below:

1. Use EPA's TANKS program, which can be downloaded from EPA's website. The calculation methodology is based on numerous tank operational parameters, including capacity, paint condition, relief valve settings, resin throughput, and typical operating levels; or

2. Use EPA's TANKS program to calculate emissions from the tank, based on a tank throughput of 1,500,000 lbs of resin per year. The resultant annual emissions are divided by the resin throughput to yield an emission factor in lbs VOC/lb of resin. This emission factor can then be applied to monthly resin throughput to determine monthly VOC emissions. If annual resin throughput rises above 1,500,000 lbs, or if the vapor pressure of the resin varies by more than 10%, the emission factor should be recalculated using TANKS.

Repair of manufactured parts: AMTECH does not repair fiberglass parts commercially. Rather, they repair parts that are damaged during the manufacturing process. Typically this involves the manual application of catalyzed resin. The permittee is expected to determine monthly VOC emissions (tons) from repair operations on manufactured parts and on molds by aggregating the monthly emissions of styrene and any other organic hazardous air pollutant. Monthly emissions of all organic hazardous air pollutants from repair operations on manufactured parts and on molds are determined by multiplying monthly resin usage (tons) by the corresponding emission factor for manual application, as specified in Table 1 to 40 CFR Part 63, Subpart WWWW, and dividing by 2,000.

Closed mold processes: AMTECH's closed mold processes include resin transfer molding, vacuum molding and vacuum infusion. Because these processes minimize contact between the resin and air, emissions are correspondingly lower. The emission estimation method was established by the Olympic Regional Clean Air Agency, and is based on the styrene content of the resin.

The permittee is expected to determine monthly VOC emissions from resin transfer molding and vacuum infusion (closed mold) operations by multiplying monthly resin usage (tons) by the following emission factor:

$$EF = 0.01 \times P_S$$

where

EF	=	emission factor (tons/ton)
P_S	=	styrene content in resin (weight fraction)

Vacuum forming operations: This section contains no method to calculate emissions of VOC from vacuum forming, which involves forming of purchased acrylic sheets into desired shapes using heat and a vacuum. No emissions of VOC are expected from these operations.

Application of spa foam: The emission estimation method for the application of methylenebis (phenyl isocyanate) (MDI) foam to the undersides of manufactured spa shells is adapted from a method developed by the Alliance for the Polyurethane Industry (MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry, 2002). The permittee is expected to calculate the emission factor below, and divide by 2000 (lb/ton).

$$L_{fd} = V_{air} \times \frac{1}{359} \times \frac{273.15}{T_{proc}} \times \frac{VP_{MDI}}{760} \times M_W \times K_{MDI}$$

where

L_{fd}	=	emissions of VOC lb/month
V_{air}	=	monthly volume of displaced air in ft^3/month
T_{proc}	=	process temperature in °K (maximum temperature of the MDI)
VP_{MDI}	=	vapor pressure of MDI in mm. Hg at process temperature
M_W	=	250.26 (this is the molecular weight of MDI)

K_{MDI} = adjustment factor to the vapor pressure that is a function of MDI concentration in the feedstock and the temperature

Spray booth: Estimation of emissions from the spray booth is based on a mass balance method for VOC. As with the cleaning of equipment used in open molding and mixing operations, it is assumed that the total VOC content of coatings, thinners and solvents is volatilized and emitted from this emission unit. The VOC content of the products are available from Material Safety Data Sheets provided by the product manufacturer.

The permittee is expected to determine monthly VOC emissions (tons) from the spray booth by first determining an emission factor for each product. The emission factor to be used is the VOC content (lbs/gallon) listed in each product Material Safety Data Sheet, or otherwise available from the product vendor. Many Material Safety Data Sheets list VOC content less water and exempt solvents – this is not the value to be used for this purpose as it will serve to overestimate emissions. The permittee should take care to use the VOC content that includes water and exempt solvents. The Monthly VOC emissions (tons) can then be calculated by multiplying each product monthly usage (gallons) by the emission factor (lbs/gallon) for the product, and dividing by 2000 (lb/ton).

Support activities: Activities supporting production operations at AMTECH Wapato include grinding operations, woodshop, painting with spray cans and maintenance activities. VOC-containing materials are used in these activities. For these materials, it is assumed that the total VOC content is volatilized and emitted from the support activities. The VOC content of the products are available from Material Safety Data Sheets provided by the product manufacturer.

The permittee is expected to determine monthly VOC emissions (tons) from the support activities by first determining an emission factor for each product. The emission factor to be used is the VOC content (lbs/gallon) listed in each product Material Safety Data Sheet, or otherwise available from the product vendor. Many Material Safety Data Sheets list VOC content less water and exempt solvents – this is not the value to be used for this purpose as it will serve to overestimate emissions. The permittee should take care to use the VOC content that includes water and exempt solvents. The Monthly VOC emissions (tons) can then be calculated by multiplying each product monthly usage (gallons) by the emission factor (lbs/gallon) for the product, and dividing by 2000 (lb/ton).

Combustion sources: Emissions from the numerous space heaters, make-up air units and spray booth heater are readily calculated using emission factors published in EPA's AP 42, Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources. With the exception of the spray booth heater, which may be propane-fired, all of these units are fired on natural gas. The permittee is expected to use the most current, fuel-specific emission factor from AP 42, Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources. Monthly VOC emissions (tons) from combustion devices are determined by multiplying the monthly fuel usage of natural gas (million standard cubic feet) or propane (thousand gallons), as appropriate, by the latest, fuel-specific emission factor listed in EPA's AP 42, Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources, and dividing by 2,000.

Additionally, if AMTECH Wapato engages in VOC-emitting activities not identified in this technical support document, AMTECH is expected to calculate emissions from these VOC-emitting activities by using emission estimation methods that are verifiable using currently accepted engineering criteria.

The permittee is required to maintain copies of required emissions calculations and all supporting documentation for a period of five years.

4.4.4 Permit Section 4: Reporting Requirements

Condition 4.1 requires AMTECH to annually submit to EPA a record of the 12 monthly 12-month emissions calculations. For ease in coordinating submittals, this report is required to be submitted concurrently with the annual FARR registration submittal. As specified in 40 CFR § 49.139(f), the annual FARR registration submittal must be submitted with the annual emission report and fee calculation required by 40 CFR Part 71. For AMTECH Wapato, the due date for these reports is December 31 of each year.

This annual report must include details on how the emissions were calculated as well as identifying the sources for various data elements.

5. Permit Procedures

5.1 Permit Revision, Termination and Reissuance

This section provides details on procedures for revision, termination, revocation and reissuance of non-Title V operating permits.

AMTECH may request EPA to revise the conditions of this permit by submitting an application that contains the information specified in 40 C.F.R. 49.139(d). EPA will revise the permit using the same procedures that apply to initial permit issuance.

If AMTECH wishes to terminate the permit, a written request must be submitted to EPA explaining the reasons for the request and, if necessary for continued operation, submitting applications for any Clean Air Act permits or approvals that AMTECH Wapato avoided by establishment of the limits contained in this permit.

This permit may be terminated, revised, or revoked and reissued by EPA for cause.
Cause exists to terminate, revise, or revoke and reissue this permit under the following circumstances:

1. This permit contains a material mistake;
2. Inaccurate statements were made in establishing the terms or conditions of this permit;
3. The permittee fails to comply with any condition of this permit; or
4. This permit must be terminated, revised, or reopened and reissued to assure compliance with Clean Air Act requirements.

EPA will use the same proceedings to terminate, revise, or revoke and reissue a permit for cause as for initial permit issuance. Before initiating proceedings to terminate, revise, or revoke and reissue a permit, EPA will provide AMTECH Wapato at least 30 days' advance written notice of EPA's intent to terminate, revise, or revoke and reissue the permit, except that EPA may provide a shorter notice period in the case of an emergency.

5.2 Public Notice and Comment

As required under 40 CFR § 49.139(c), all draft owner-requested operating permits must be publicly noticed and made available for public comment. For this permit action, the requirements of 40 CFR § 49.139(c)(5) are as follow:

1. Make available for public inspection, in at least one location in the area affected by the air pollution source, a copy of the draft operating permit prepared by EPA, the technical support

document for the draft permit, the application, and all supporting materials (see 40 CFR 49.139(c)(5)(i));

2. Publish public notice for this draft permit, by prominent advertisement in a newspaper of general circulation in the area affected by this source, of the availability of the draft permit to operate and supporting materials and of the opportunity to comment. Where possible, notices will also be made in the Tribal newspaper (see 40 CFR 49.139(c)(5)(ii));
3. Provide copies of the notice to the owner or operator of the air pollution source, the Tribal governing body, and the Tribal, State and local air pollution authorities having jurisdiction in areas outside of the Indian reservation potentially impacted by the air pollution source (see 40 CFR 49.139(c)(5)(iii)); and
4. Provide for a 30-day period for submittal of public comments, starting upon the date of publication of the notice. If requested, the Regional Administrator may hold a public hearing and/or extend the public comment period for up to an additional 30 days (see 40 CFR 49.139(c)(5)(iv)).

40 CFR § 49.139(c) also contains requirements that apply after the draft permit is made available for public comment. These additional requirements must be satisfied prior to issuance of the final permit:

1. EPA will accept comments on the draft permit, during the 30 day public comment period (see 40 CFR 49.139(c)(5)(iv));
2. After the close of the public comment period, EPA will consider all comments received and prepare a final permit to operate and final technical support document. The final technical support document will include a response to all comments received during the public comment period (see 40 CFR 49.139(c)(6));

After issuance of the final permit and technical support document, the following requirements must also be satisfied:

1. Make the final permit and technical support document available at all of the locations where the draft permit was made available (see 40 CFR 49.139(c)(7)); and
2. Send the final permit and technical support document to all persons who provided comments on the draft permit to operate (see 40 CFR 49.139(c)(7)).

5.3 Response to Public Comments

The draft permit and technical support document were made available during a public comment period that lasted from March 10, 2006 to April 10, 2006. No comments were received during this time.

6. Abbreviations and Acronyms

CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency (also U.S. EPA)
FARR	Federal Air Rules for Reservations
FR	Federal Register
HAP	Hazardous air pollutant
MDI	Methylenebis (phenyl isocyanate)
NESHAP	National Emission Standards for Hazardous Air Pollutants (Title 40 CFR Parts 61 and 63)
PSD	Prevention of significant deterioration
PTE	Potential to emit
^{0}R	Degrees Rankine, ^{0}R = ^{0}Fahrenheit + 460
tpy	Tons per year
VOC	Volatile organic compound, as defined in 40 CFR § 51.100 (s)