



Environmental Protection Agency

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

3/14/2011

Randy Meyer  
AMP Cleveland Generating Station  
1111 Schrock Road, Suite 100  
COLUMBUS, OH 43229

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE  
Facility ID: 1318008238  
Permit Number: P0094947  
Permit Type: Renewal  
County: Cuyahoga

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, OH 43215

If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc), by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: CDAQ



## Response to Comments

Response to comments for: Permit-To-Install and Operate

Facility ID:	1318008238
Facility Name:	AMP Cleveland Generating Station
Facility Description:	Electrical power generator
Facility Address:	13611 ASPINWALL AVE Cleveland, OH 44110 Cuyahoga County
Permit #:	P0094947, Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Plain Dealer on 02/04/2011. The comment period ended on 03/06/2011.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

The following comments were submitted by AMP Cleveland Generating Station on February 22, 2011:

1. Topic: **Testing of cetane index and aromatic content in oil in term b)(2)b..**
  - a. Comment: **Requested to add the following statement to term b)(2)b.: “Compliance with b)(2)(b)ii. shall be determined by a manufacturers specification sheet, rather than analyzing each shipment of oil.”**
  - b. Response: **Comment accepted and added to the paragraph in term b)(2)b..**
2. Topic: **typographical error**
  - a. Comment: **In term b)(2)c. in the second column, fifth row, the word “devise” should be “device”.**
  - b. Response: **The word devise was changed to device.**

3. Topic: **Clarification of type of fuel.**

- a. Comment: **In term d)(1)a., insert “ultra” before “low sulfur” as follows: the total volume (in gallons) of ultra low sulfur No. 2 diesel fuel burned.**
- b. Response: **The word “ultra” was added to describe “low sulfur”.**



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
AMP Cleveland Generating Station**

Facility ID: 1318008238  
Permit Number: P0094947  
Permit Type: Renewal  
Issued: 3/14/2011  
Effective: 3/14/2011  
Expiration: 3/14/2016





Division of Air Pollution Control
Permit-to-Install and Operate
for
AMP Cleveland Generating Station

Table of Contents

Authorization ..... 2
A. Standard Terms and Conditions ..... 4
1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 5
2. Who is responsible for complying with this permit? ..... 5
3. What records must I keep under this permit? ..... 5
4. What are my permit fees and when do I pay them?..... 5
5. When does my PTIO expire, and when do I need to submit my renewal application? ..... 5
6. What happens to this permit if my project is delayed or I do not install or modify my source? ..... 6
7. What reports must I submit under this permit? ..... 6
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? ..... 6
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 6
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? ..... 6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? ..... 7
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? ..... 7
13. Can I transfer this permit to a new owner or operator?..... 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? ..... 8
15. What happens if a portion of this permit is determined to be invalid? ..... 8
B. Facility-Wide Terms and Conditions..... 9
C. Emissions Unit Terms and Conditions ..... 11
1. Emissions Unit Group - 20.02 MMBtu engine/generators: P001, P002, P003, P004, P005, P006,..... 12



## Authorization

Facility ID: 1318008238  
Application Number(s): A0026469  
Permit Number: P0094947  
Permit Description: FEPTIO renewal of six 20.02 MM Btu Caterpillar Model 3561B compression ignition diesel #2 oil powered engine/generators.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 3/14/2011  
Effective Date: 3/14/2011  
Expiration Date: 3/14/2016  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

AMP Cleveland Generating Station  
13611 ASPINWALL AVE  
Cleveland, OH 44110

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

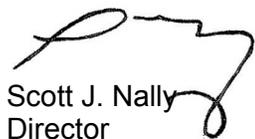
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality  
2nd Floor  
75 Erieview Plaza  
Cleveland, OH 44114  
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0094947  
Permit Description: FEPTIO renewal of six 20.02 MM Btu Caterpillar Model 3561B compression ignition diesel #2 oil powered engine/generators.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

**Group Name: 20.02 MMBtu engine/generators**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	CLEVELAND P001
Superseded Permit Number:	13-03653
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	CLEVELAND P002
Superseded Permit Number:	13-03653
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	CLEVELAND P003
Superseded Permit Number:	13-03653
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	CLEVELAND P004
Superseded Permit Number:	13-03653
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	CLEVELAND P005
Superseded Permit Number:	13-03653
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P006</b>
Company Equipment ID:	CLEVELAND P006
Superseded Permit Number:	13-03653
General Permit Category and Type:	Not Applicable

## **A. Standard Terms and Conditions**

**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Cleveland Division of Air Quality in accordance with OAC rule 3745-

15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

---

<sup>1</sup> Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

## **B. Facility-Wide Terms and Conditions**

**Final Permit-to-Install and Operate**

AMP Cleveland Generating Station

**Permit Number:** P0094947

**Facility ID:** 1318008238

**Effective Date:** 3/14/2011

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) 2.
2. The compression ignition (CI) reciprocating internal combustion engine(s) (RICE), located at an area source for hazardous air pollutants (HAPs), is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, Part 63, Subpart ZZZZ. The existing stationary CI RICE, P001 through P006, installed before 6/12/06, shall meet the requirements of Part 63, Subpart ZZZZ no later than 5/3/13.

## **C. Emissions Unit Terms and Conditions**

**1. Emissions Unit Group - 20.02 MMBtu engine/generators: P001, P002, P003, P004, P005, P006,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P001	20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP
P002	20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP
P003	20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP
P004	20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP
P005	20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP
P006	20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)d, b)(2)a, c)(2), c)(3), d)(1), and e)(4).

b) Applicable Emission Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute the emissions group along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI 13-03653 issued on 10/27/2005	NO <sub>x</sub> emissions from each emissions unit shall not exceed 49.00 lb/hr and 14.7 TPY.  CO emissions from each emissions unit shall not exceed 3.77 lb/hr and 1.13 TPY.  Total Organic Compound (TOC) emissions from each emissions unit shall not exceed 1.54 lb/hr and 0.46 TPY.  Particulate emissions from each emissions unit shall not exceed 1.24 lb/hr and 0.37 TPY.  Sulfur dioxide emissions from each emissions unit shall not exceed 1.0 lb/hr and 0.3 TPY. The lb/MMBtu limit is less

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>stringent than the lb/MMBtu limit established pursuant to Subpart ZZZZ.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).</p>
b.	OAC rule 3745-17-07(A)(1)(a)	Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-11(B)(5)(b)	Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu actual heat input.
d.	OAC rule 3745-31-05(D) (FEPTIO to avoid Title V)	Annual NO <sub>x</sub> emissions of 88.2 TPY for facility. See terms b)(2)a, c)(1) and c)(2) below.
e.	40 CFR 63.6604 40 CFR 80.510(b)	<p>The sulfur content of the diesel fuel burned in this emissions unit shall not exceed 15 ppm per gallon of oil or 0.0015% sulfur by weight.</p> <p>See terms b)(2)b, d)(1), and NESHAP tables.</p>
f.	40 CFR 63 Subpart ZZZZ 40 CFR 63.6603(a)	Limit CO to 23 ppmvd at 15% O <sub>2</sub> or reduce CO emissions by 70% or more. These emission units shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ no later than 5/3/13.
g.	OAC rule 3745-18-06(G)	The SO <sub>2</sub> limitation specified by this rule is less stringent than the SO <sub>2</sub> limitation established pursuant to OAC rule 3745-31-05(A)(3)

(2) Additional Terms and Conditions

- a. The total annual emissions of NO<sub>x</sub> from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO<sub>x</sub> emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in c)(2) and c)(3) below.
- b. The quality of the diesel fuel burned in this emissions unit shall meet the following specifications on an "as received" basis:
  - i. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.0015 pound sulfur dioxide/MMBtu actual

**Final Permit-to-Install and Operate**

AMP Cleveland Generating Station

**Permit Number:** P0094947

**Facility ID:** 1318008238

**Effective Date:** 3/14/2011

heat input; and 15 ppm sulfur per gallon of oil or 0.0015% sulfur by weight;

- ii. a cetane index of 40 or an aromatic content of 35 volume percent; and
- iii. greater than 135,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil. Compliance with b)(2)b.ii. shall be determined by a manufacturer's specification sheet, rather than analyzing each shipment of oil.

- c. The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6595(a)(1)	The compliance date for Part 63 Subpart ZZZZ for existing CI RICE is 5/3/13.
Applicable Tables from Part 63, Subpart ZZZZ	Emission limit options in Table 2d #3; operational limitations in Table 2b #1; performance test frequency in Table 3 #4; performance test methods in Table 4 #1 or #3; initial compliance demonstration in Table 5 #1 or #3; continuous compliance in Table 6 #3 or #10; reporting requirements/ frequency in Table 7; general provision from Subpart A in Table 8.
40 CFR 63.6603(a)	Maintain compliance with emission limitation in Table 2d #3 (limit CO to 23 ppmvd at 15% O <sub>2</sub> or reduce CO by 70%) and any applicable operating limits identified in Table 2b to Part 63 Subpart ZZZZ.
40 CFR 63.6603; 40 CFR 63.6612; 40 CFR 63.6620 and Subpart ZZZZ Tables 4 & 5	Conduct an initial performance test within 180 days following the compliance date, or by 11/3/13, using the appropriate test methods in Table 4; while continuously monitoring either CO and O <sub>2</sub> (or CO <sub>2</sub> ), using continuous emissions monitoring systems (CEMS), <b>or</b> the temperature at the inlet of the catalyst to the control device using a continuous parameter monitoring system (CPMS), as required in Table 5; <b>and</b> establish the operating parameter for the pressure drop across the catalyst.
40 CFR 63.6615; and/or Subpart ZZZZ Table 3 #4; and Table 6 #3 or #10	By the compliance date, either install CEMS to continuously monitor CO at the inlet and outlet of the control device (or at the outlet if choosing to comply with the CO concentration limit) and conduct annual relative accuracy test audits (RATA) and daily data quality checks according to Table 6 #3 and measure the pressure drop across the catalyst monthly; <b>or</b> As required in Table 6 #10, install CPMS at the inlet of the catalyst and conduct subsequent performance tests every 8760 hours of operation or every 3 years, whichever comes first, to demonstrate compliance with the chosen CO emission standard, using the test methods in Table 4 and procedures in #1 of Table 5; and measure the pressure drop across the catalyst monthly.
40 CFR 63.6625(a); or 40 CFR 63.6625(b); and	Develop and implement a site-specific monitoring plan for the continuous parameter monitoring system (CPMS), where demonstrating continuous compliance by monitoring the catalyst

Applicable Rule	Requirement
40 CFR 63.8(c),(d), & (e)	inlet temperature; and develop and implement a continuous monitoring system (CMS) quality control program and performance evaluation test plan for the chosen monitoring system.
40 CFR 63.6625(g)	Install crankcase ventilation system by 5/3/13 if not already equipped.
40 CFR 63.6665	Meet all of the general provisions of Subpart A, from Sections 63.1 through 63.15, that apply to the CI RICE, as identified in Table 8 to Subpart ZZZZ.

c) Operational Restrictions

- (1) The operation of each emissions unit (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
- (2) The maximum quantity of diesel fuel which may be burned in each emissions unit shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.
- (3) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6604	Compliance with 80.510(b) for the quality of diesel fuel burned in nonemergency CI ICE with a displacement of less than 30 liters/cylinder and a site rating of more than 300 brake horsepower. Standard for diesel fuel oil.
40 CFR 63.6605	General duty to minimize emissions, with good air pollution control practices for minimizing emissions; and compliance required at all times.
40 CFR 63.6625(h)	Minimize idle and startup time, not to exceed 30 minutes.
40 CFR 63.6603; 40 CFR 63.6640(a); and Subpart ZZZZ Table 2b #1	Comply with operational limitations in Table 2b: The temperature of the stationary RICE exhaust at the inlet of the oxidation catalyst shall be maintained at greater than or equal to 450 degrees Fahrenheit and less than or equal to 1,350 degrees Fahrenheit; and the pressure drop across the catalyst shall be maintained at no more than 2 inches of water, plus or minus 10% of the pressure drop measured during the initial performance test, at 100% load.
40 CFR 63.6625(k)	Conduct a calibration check on the temperature measurement device at least once every 3 months. The temperature sensor must meet the minimum tolerance and must be positioned as specified in 40 CFR 63.6625(k).

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information for each emissions unit:
  - a. the total volume (in gallons) of ultra low sulfur No. 2 diesel fuel burned;
  - b. the total hours of operation;
  - c. the rolling, 12-month summation of the operating hours; and
  - d. the rolling, 12-month summation of diesel fuel usage.
- (2) The permittee shall calculate and record, on a monthly basis, the total emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, PM, and total organic compound emissions for each emissions unit, utilizing methods of calculation specified in f) of these terms and conditions.
- (3) The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240 or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the Cleveland Division of Air Quality (Cleveland DAQ).
- (4) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6625(a)	Following the compliance date, if installing CEMS, an initial performance evaluation of the CEMS using Performance Specifications 3 and 4A of 40 CFR Part 60, Appendix B and an annual relative accuracy test audit (RATA) must be conducted for each CEMS according to the requirements in 40 CFR 63.8 and the applicable performance specifications of 40 CFR Part 60, Appendix B, as well as, daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, procedure 1. Data from the CEMS shall be reduced to 1-hour averages.
40 CFR 63.6625(b)	Following the compliance date, if installing CPMS, the catalyst inlet temperature shall be reduced to 4-hour rolling averages and the pressure drop across the catalyst must be monitored and recorded monthly. Develop site-specific monitoring plan for the CPMS.
40 CFR 63.6635	Except for monitor malfunctions, associated repairs, and required quality assurance activities, must continuously monitor that the RICE is operating. Must use all valid data (not recorded during malfunctions, repairs, or required quality assurance or control activities) in calculations used to report emissions or operating levels.
40 CFR 63.6640(a)	Demonstrate continuous compliance with the emission limitation and applicable operating limitation identified in Tables 2d and 2b according to the methods specified in Table 6 to Subpart ZZZZ.
40 CFR 63.6655(a)	Keep records of: 1) each notification and report submitted to comply with Subpart ZZZZ; 2) the occurrence and duration of each

Applicable Rule	Requirement
	malfunction of the RICE and any control or monitoring equipment; 3) corrective actions taken during each period of malfunction to minimize emissions and restore normal operations; 4) records of performance tests and performance evaluations; and 5) all required maintenance performed on air pollution control and monitoring equipment.
40 CFR 63.6655(b); 40 CFR 63.10(b); and 40 CFR 63.8(d) and (e)	Keep records for each CEMS or CPMS used to demonstrate compliance, including the performance evaluation test results and records and results of the quality control program.
40 CFR 63.6655(d)	Keep the records required in Table 6 to Subpart ZZZZ to demonstrate continuous compliance.
40 CFR 63.6604 40 CFR 80.510(b)	Maintain records for the quality of diesel fuel burned in the CI ICE, i.e., for the standards identified in 40 CFR 80.510(b).
40 CFR 63.6625(b)(6) and 40 CFR 63.10(c)	Maintain records of any malfunction, repairs, and corrective actions taken of/to the CEMS/CPMS and any excess emissions or parameter monitoring exceedances, as identified by 40 CFR 63.10(c).
40 CFR 63.6625(h)	Maintain a record of each idle and/or startup time that exceeded 30 minutes.
40 CFR 63.6660	Records readily available and retained for at least 5 years after the date of occurrence or date of report according to 63.10(b)(1).

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (3) The permittee shall include in the annual PER the following information for each emissions unit:
  - a. the monthly and annual volume (in gallons) of ultra low sulfur diesel fuel burned;
  - b. the total monthly and annual hours of operation;
  - c. the total annual emissions of NO<sub>x</sub>, CO, PM, SO<sub>2</sub>, and total organic compounds for the previous calendar year; and
  - d. any deviations of the sulfur content restriction.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the

**Final Permit-to-Install and Operate**

AMP Cleveland Generating Station

**Permit Number:** P0094947

**Facility ID:** 1318008238

**Effective Date:** 3/14/2011

potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

- i. the rolling, 12-month fuel usage restriction;
  - ii. the rolling, 12-month operating hours restriction; and
  - iii. the rolling, 12-month NO<sub>x</sub> emission limitation combined for P001 – P006.
- b. the probable cause of each deviation (excursion);
  - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
  - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

- (5) The permittee shall comply with the following applicable requirements identified in 40 CFR Part 63, Subpart ZZZZ:

Applicable Rule	Requirement
40 CFR 63.6604 and 40 CFR 80.510(b)	Identify in the semiannual compliance reports any period of time (date and number of hours), during the reporting period, that the quality of oil burned in this emissions unit did not meet the requirements established in 40 CFR 80.510(b).
40 CFR 63.6630(c)	Submit the results of the initial compliance demonstration in the Notification of Compliance.
40 CFR 63.6640(b)	Submit a report of each instance in which the emission limitation or operating limitation in Tables 2d and 2b were not met; these deviations to be reported according to the requirements of 63.6650.
40 CFR 63.6640(e)	Submit a report of each instance in which the applicable requirements in Table 8 to Subpart ZZZZ, the general provisions from Subpart A, were not met.
40 CFR 63.6645(a)(2)	Submit all notifications required per 63.7(b) and (c); 63.8(e), (f)(4), and (f)(6); and 63.9(b) through (e), (g), and (h) that apply to the CI RICE.
40 CFR 63.6645(g)	Submit a Notification of Intent to conduct a performance test at least 60 days before the test is scheduled to begin, as required by 63.7(b)(1).
40 CFR 63.6645(h) and OAC rule 3745-15-04(A)	Submit a Notification of Compliance Status, according to 63.9(h)(2)(ii), for each initial compliance demonstration required in Table 5 to Subpart ZZZZ, including the performance test results, and before the close of business on the 60 <sup>th</sup> day following the

Applicable Rule	Requirement
	completion of the test according to 63.10(d)(2) or within 30 days of the initial compliance demonstration if the demonstration does not include a performance test. OAC rule 3745-15-04(A) requires performance test results to be submitted within 30 days of the test date unless additional time is requested.
40 CFR 63.6650(a)	Submit each applicable report in Table 7 of Subpart ZZZZ
40 CFR 63.6650(b)(1) to (5) and Table 7 #1	Following the initial compliance date, submit Semiannual Compliance Reports to include the information identified in 63.6650(c) through (f), as applicable to the CI ICE. Following the initial compliance report, each subsequent report shall cover the reporting period from January 1 <sup>st</sup> through June 30 <sup>th</sup> and July 1 <sup>st</sup> through December 31 <sup>st</sup> . The Semiannual Compliance Reports must be postmarked or delivered no later than July 31 <sup>st</sup> and January 31 <sup>st</sup> .
40 CFR 63.6650(c)	63.6650(c) contains the required information to be submitted in each compliance report.
40 CFR 63.6650(d) and (e)	63.6650(d) contains the required information to be submitted for each deviation from an emission or operating limitation not monitored by a continuous monitoring system (CMS) and 63.6650(e) the information needed where using a CMS to comply with the emission or operating limitation.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations: NO<sub>x</sub> emissions from each emissions unit shall not exceed 49.00 lb/hr and 14.7 TPY; total NO<sub>x</sub> emissions from this facility (emissions units P001 – P006) shall not exceed 88.2 TPY.

Applicable Compliance Method: Compliance shall be based on calculations using the rated capacity of the engines, the annual hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = C \times E_f, \text{ and}$$

$$ER(\text{ANNUAL}) = C \times E_f \times A \times 1 \text{ ton}/2000 \text{ lb.}$$

Where:

C = Rated capacity of the engine in MMBtu/hr (20.02 MMBtu/hr),

E<sub>f</sub> = Emission factor for the engine in lb/MMBtu (2.45 lb NO<sub>x</sub>/MMBtu),

A = Annual hours of engine operation

ER = emission rate in lb/hr and tons/yr.

**Final Permit-to-Install and Operate**

AMP Cleveland Generating Station

**Permit Number:** P0094947

**Facility ID:** 1318008238

**Effective Date:** 3/14/2011

Annual NO<sub>x</sub> emissions for the facility (P001 – P006) shall be determined by summing the annual emissions for each emissions unit. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly NO<sub>x</sub> emission limit of this permit by means of physical testing of the effluent from one emissions unit in accordance with testing procedures listed in 40 CFR Part 60, “Standards of Performance for New Stationary Sources”, Appendix A, Methods 1-4 and Method 7 or 7E.

- b. Emission Limitations: Carbon monoxide (CO) emissions from each emissions unit shall not exceed 3.76 lb/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations using the formulas in f)(1)a. above and utilizing a manufacturer’s emission factor of 0.188 lb CO/MMBtu, the maximum rated capacity for each engine, and the annual hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly CO emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, “Standards of Performance for New Stationary Sources”, Appendix A, Methods 1-4, and Method 10.

- c. Emission Limitations:

23 ppmvd CO at 15% O<sub>2</sub> or reduce CO by 70%

Applicable Compliance Method: Unless a performance test is submitted that meets the requirements of 40 CFR 63.6612(b), the permittee shall conduct an initial performance test within 180 days after the compliance date or no later than 11/3/13, to demonstrate compliance with the CO limitation in the NESHAP. The appropriate tests methods from Table 4 to Subpart ZZZZ shall be conducted based on the option chosen for compliance, i.e., the part per million concentration or percent reduction. The permittee shall conduct subsequent performance tests every 8,760 hours of operation or every 3 years, whichever comes first.

If demonstrating compliance using a CPMS to monitor the temperature at the inlet to the catalyst, the pressure drop and 4-hour rolling average temperature at the catalyst inlet shall be monitored during the performance test, to establish an operating limit for the pressure drop and demonstrate compliance with the limit on the operating range for the catalyst inlet temperature. Per 63.6640(b), if the catalyst is changed or the control device replaced, a new performance test must be conducted to demonstrate compliance with the emission limitation and to reestablish the values for compliance with the operating parameters.

Each performance test shall consist of 3 separate test runs and each test run shall last a minimum of 1 hour and shall be conducted during normal operations. The engine percent load, during the performance test, shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load and the estimated percent load shall be included in the notification of compliance.

A compliant performance test shall demonstrate that either the CO emissions have been reduced by 70% or that the average CO concentration is less than or

equal to 23 ppmvd, corrected to 15 percent O<sub>2</sub> on a dry basis, and from three 1-hour or longer performance test runs.

If demonstrating compliance with the 70% control requirement for CO, the permittee may use a portable CO and O<sub>2</sub> analyzer at the inlet and outlet of the control device and use ASTM Method D6522-00 to meet the performance testing requirement in Table 4 to Subpart ZZZZ. The CO concentrations at the inlet and outlet of the control device must be normalized to a dry basis and to 15% oxygen, or an equivalent percent CO<sub>2</sub>, as required in 40 CFR 63.6620(e).

The following test methods shall be employed to demonstrate compliance with the emission limitation for CO or may be used to demonstrate compliance with the control requirement for CO:

- i. Method 1 or 1A of 40 CFR Part 60, Appendix A to select the sampling port location and the number of traverse points
- ii. Method 3, 3A, or 3B of 40 CFR Part 60, Appendix A or ASTM Method D6522-00: to measure O<sub>2</sub> at the inlet and outlet of the control device if demonstrating compliance through the percent control of CO or to determine the O<sub>2</sub> concentration of the stationary ICE exhaust to normalize the CO concentration.
- iii. Method 4 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D6348-03 to measure the moisture content at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure the moisture content of the stationary RICE exhaust.
- iv. Method 10 of 40 CFR Part 60, Appendix A; or Method 320 of 40 CFR Part 63, Appendix A; or ASTM D 6348-03 to measure CO at the inlet and outlet of the control device if demonstrating compliance through the percent control or to measure CO at the exhaust of the stationary ICE.
- v. The following equation shall be used to normalize the CO concentrations to a dry basis and to 15 percent oxygen (O<sub>2</sub>)\*\*:

$$C_{adj} = C_d (5.9 / 20.9 - \% O_2)$$

Where:

C<sub>adj</sub>= calculated CO concentration adjusted to 15 percent O<sub>2</sub>.

C<sub>d</sub>= measured concentration of CO, uncorrected.

5.9 = 20.9 percent O<sub>2</sub> – 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

%O<sub>2</sub> = measured O<sub>2</sub> concentration, dry basis, percent.

\*\* Optionally, the pollutant concentrations can be corrected to 15% O<sub>2</sub> using a CO<sub>2</sub> correction factor, by calculating the fuel factor (F<sub>o</sub> value)

using Method 19 results obtained during the performance test (40 CFR 63.6620(e)(2)).

- vi. If compliance is demonstrated for the control efficiency for CO, the following equation shall be used to determine the percent reduction:

$$R = (C_i - C_o) / C_i \times 100$$

Where:

C<sub>i</sub> = concentration of CO at the control device inlet,

C<sub>o</sub> = concentration of CO at the control device outlet, and

R = percent reduction of CO emissions.

If using CEMS to monitor and comply with the CO concentration limitation or requirement to reduce CO emissions, the permittee shall conduct annual relative accuracy test audits (RATA) using Performance Specifications 3 and 4A of 40 CFR Part 60 Appendix B and daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, Procedure 1;

If using a CPMS to demonstrate compliance, the permittee shall conduct subsequent performance tests for CO (concentration or % reduction) every 8,760 hours of operation or every 3 years, whichever comes first.

The permittee shall notify the Cleveland DAQ in writing of each scheduled performance test date or RATA at least 60 calendar days before it is scheduled, to allow the agency time to review and approve the site-specific test plan and to arrange for an observer to be present during the compliance demonstration.

Personnel from the Cleveland DAQ shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

- d. Emission Limitations: Total organic compound emissions from each emissions unit shall not exceed 1.54 lb/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations using the formulas in f)(1)a above and utilizing a manufacturers emission factor of 0.077lb OC/MMBtu, the maximum rated capacity for each engine, and the annual hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly total organic compound emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 1-4, and Method 18, 25, or 25A..

- e. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.24 lb/hr and 0.37 TPY.

**Final Permit-to-Install and Operate**

AMP Cleveland Generating Station

**Permit Number:** P0094947

**Facility ID:** 1318008238

**Effective Date:** 3/14/2011

Applicable Compliance Method: Compliance with the annual limit shall be based on multiplying the pound per hour emission rate, by the annual hours of operation of this emissions unit as recorded above and divide by 2000 pounds per ton. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly and pound per MMBtu particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Methods 1-5, and OAC rule 3745-17-03(B)(7).

- f. Emission Limitations: Sulfur Content Limitations for Diesel Fuel

Sulfur content 15 ppm per gallon or < 0.0015% by weight sulfur

Applicable Compliance Method: Compliance shall be demonstrated through the record keeping requirements for the sulfur content of each shipment of diesel oil received. If meeting the standards in 40 CFR 80.510(b), this calculates to approximately 0.0015 lb SO<sub>2</sub>/MMBtu.

- g. Emission Limitations: Sulfur dioxide emissions from each emissions unit shall not exceed 1.0 lb/hr and 0.30 TPY.

Applicable Compliance Method: Compliance with the annual limit shall be based on the lb/hr emission rate for a sulfur content based emission factor specified in U.S. EPA document AP 42, 5<sup>th</sup> Edition "Compilation of Air Pollution Emission Factors" Section 3.4, table 3.4-1 (10/96) multiplied by the annual hours of operation of each emission unit as recorded above and divided by 2000 pound per ton. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly and pound per MMBtu sulfur dioxide emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Methods 1-4 and Method 6, and in OAC rule 3745-18-04.

- h. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method: Compliance shall be determined through visible emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

- g) Miscellaneous Requirements

- (1) None.