



**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

OPERATING PERMIT

TORAY PLASTICS (AMERICA), INC.

PERMIT NO. RI-28-08(R5)

(Renewal date: September 19, 2008)
(Expiration date: September 19, 2013)

Pursuant to the provisions of Air Pollution Control Regulation No. 29, this operating permit is issued to:

Toray Plastics (America), Inc.
50 Belver Ave.
North Kingstown, RI 02852-7500

This permit shall be effective from the date of its issuance. All terms and conditions of the permit are enforceable by USEPA and citizens under the federal Clean Air Act, 42 U.S.C. 7401, et seq., unless specifically designated as not federally enforceable.

**Douglas L. McVay, Acting Chief
Office of Air Resources**

Date of revision: 03/31/2010

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SECTION I. SOURCE SPECIFIC CONDITIONS

A. Requirements for Emission Unit P006 and P012 (DMT process)

The following requirements are applicable to:

- Emission unit P006, which is a Cryochem Esterification/Ester Interchange (ES/EI) Vessel (P6 line). P006 is associated with air pollution control devices C001, C002, C003A and C003B.
- Emission unit P012, which is a Trinity Industries, Inc. PET polymerization vessel (P6 line). P012 is associated with air pollution control devices C001 and C002.
- Air pollution control device C001, which is a packed tower scrubber. C001 uses water as its scrubbing liquid.
- Air pollution control device C002, which is a B.G. Wickberg Company, Inc. Catalytic Oxidizer.
- Air pollution control device C003A, which is a Metfab Engineering cylindrical shaped Seal Pot. C003A is divided into two sections (upper and lower), both sections containing scrubbant. C003A uses water as its scrubbing liquid.
- Air pollution control device C003B, which is an After Condenser.

1. **Operating Requirements**

- a. All emissions generated from vacuum venting of P006 following methanol distillation and ethylene glycol distillation in the DMT process shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(2)]
- b. All emissions generated from P006 during methanol distillation and ethylene glycol distillation in the DMT process shall be captured, contained and routed to C003B/C003A for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(3)]
- c. All emissions generated from vacuum venting of P012 during the polymerization reaction shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(1)]
- d. C001, C002, C003A and C003B shall be operated according to their design specifications whenever P006 and/or P012 are in operation or are emitting air contaminants. [16.2]
- e. In case of malfunction of C001, C002, C003A and/or C003B, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C001, C002, C003A and/or C003B is expected or may reasonably be expected to continue for longer than 24

hours and if the permittee wishes to operate P006 and/or P012 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [Approval No. 1059, 1060 & 1420(E)(1), 16.3]

- (1) Identification of the specific air pollution control system (ie. C001, C002, C003A and/or C003B) and the source on which it is installed (ie. P006), [Approval No. 1059, 1060 & 1420(E)(1)(a), 16.3(a)]
- (2) The expected period of time that the air pollution control system will be malfunctioning or out of service, [Approval No. 1059, 1060 & 1420(E)(1)(b), 16.3(b)]
- (3) The nature and quantity of air contaminants likely to be emitted during said period, [Approval No. 1059, 1060 & 1420(E)(1)(c), 16.3(c)]
- (4) Measures that will be taken to minimize the length of said period, and [Approval No. 1059, 1060 & 1420(E)(1)(d), 16.3(d)]
- (5) The reasons it would be impossible or impractical to cease the source operation during said period. [Approval No. 1059, 1060 & 1420(E)(1)(e), 16.3(e)]

f. The permittee may seek to establish that a malfunction of C001, C002, C003A and/or C003B that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that: [Approval No. 1059, 1060 & 1420(E)(2)]

- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation or operator error; [Approval No. 1059, 1060 & 1420(E)(2)(a)]
- (2) The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance; [Approval No. 1059, 1060 & 1420(E)(2)(b)]
- (3) Repairs necessary to bring C001, C002, C003A and/or C003B back to operating at their design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or materials needed should be shipped overnight where possible or practical. [Approval No. 1059, 1060 & 1420(E)(2)(c)]
- (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed. [Approval No. 1059, 1060 & 1420(E)(2)(d)]

- (5) Emissions during the period of time that the repairs were performed will not: [Approval No. 1059, 1060 & 1420(E)(2)(e)]
- (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and [Approval No. 1059, 1060 & 1420(E)(2)(e)(1)]
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard. [Approval No. 1059, 1060 & 1420(E)(2)(e)(2)]
- (6) The reasons that it would be impossible or impractical to cease the operation of P006 during said period. [Approval No. 1059, 1060 & 1420(E)(2)(f)]

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred, and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

- g. The number of polymerization batches conducted in the six polymerization esterification units (P001 – P006) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(3)]
- h. The number of polymerization batches conducted in the six polymerization units (P007-P012) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(4)]

2. Monitoring Requirements

- a. Scrubber level for control device C001 shall be monitored continuously. [29.6.3(b)]
- b. Scrubber liquor make-up rate for control device C001 shall be monitored twice per day. [29.6.3(b)]
- c. Outlet temperature and operating temperature for control device C002 shall be monitored continuously. [29.6.3(b)]
- d. Water flow rate and nitrogen flow rate for control device C003A shall be monitored once per shift. [29.6.3(b)]
- e. Outlet temperature for control device C003B shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the scrubber level and make-up rate for control device C001 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- b. The permittee shall check the outlet temperature and operating temperature for control device C002 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- c. The permittee shall check the water flow rate and nitrogen flow rate for control device C003A a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- d. The permittee shall check the outlet temperature for control device C003B a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- e. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]
 - (1) The total number of polymerization batches conducted in the six polymerization esterification units (P001-P006). [Approval No. 2069(D)(1)(b)]
 - (2) The total number of polymerization batches conducted in the six polymerization units (P007-P012). [Approval No. 2069(D)(1)(c)]

Monthly and 12-month rolling totals shall be determined for the above items. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request.

4. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.A of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1059, 1060 & 1420(D)(6)]

- b. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that: [Approval No. 2069(D)(2)]
 - (1) The total of number batches processed in the six polymerization esterification units (P001-P006) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(a)]
 - (2) The total of number batches processed in the six polymerization units (P007-P012) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(b)]

5. Other Requirements

- a. To the extent consistent with the requirements of Section I.A of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval No. 1059, 1060 & 1420(F)(1)]
- b. There shall be no bypassing of C001, C002, C003A and/or C003B during times when VOC or HAP is being discharged to the device. As an exception to this prohibition, the Office of Air Resources may allow bypassing of C001, C002, C003A and/or C003B to perform maintenance on the equipment, if the permittee can demonstrate, to the satisfaction of the Office of Air Resources, that:
 - (1) It is impossible or impractical to cease operation of the source during the period of time that maintenance is to be performed; and
 - (2) All possible steps will be taken to minimize emissions during the period of time that the maintenance will be performed; and
 - (3) Maintenance is to be performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such maintenance is completed as expeditiously as practicable. [Approval No. 1059, 1060 & 1420(F)(4)]

Maintenance activities on this equipment shall be conducted, as needed so as not to exceed lengths of shutdown specified in Table 1 of this permit. Additionally, in order to minimize emissions during the period of time that the maintenance will be performed, maintenance shall be conducted on only one device at a time.

Table 1

Unit	Air Pollution Control Device	Permitted Shutdown Time	Steps to Reduce Emissions
Scrubber	C001	<36 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
Catalytic Incinerator	C002	<48 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
RTO	C004	<72 Hours per year	The R-EG Building will be brought off-line; no wastewater will be transferred from WWST No. 2 to WWST No. 1 (during the initial 12 hours of the shutdown) and the agitator in WWST No. 1 and the mixer in WWST No. 2 will be turned off.

B. Alternative Operating Scenario No. 1 for Emission Unit P006 and P012 (PTA process)

The following requirements are applicable to:

- Emission units P006 and P012 are capable of manufacturing PET chips by a different process, the PTA process. The requirements applicable to those emission units when manufacturing PET chips using the PTA process are contained in this alternative operating scenario.

1. Operating Requirements

- a. All emissions generated from vacuum venting of P012 during its polymerization reaction shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(1)]
- b. All emissions generated from P006 in the PTA process, excluding when raw materials are charged to the vessel, shall be captured, contained and routed to C003B for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(4)]
- c. C001, C002 and C003B shall be operated according to their design specifications whenever P006 and/or P012 are in operation or are emitting air contaminants. [16.2]
- d. In case of malfunction of C001, C002 and/or C003B, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C001, C002 and/or C003B is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P006 and/or P012 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode

Island, as amended. Such petition shall include but is not limited to, the following:
[Approval No. 1059, 1060 & 1420(E)(1), 16.3]

- (1) Identification of the specific air pollution control system (ie. C001, C002 or C003B) and the source on which it is installed (ie. P006 or P012), [Approval No. 1059, 1060 & 1420(E)(1)(a), 16.3(a)]
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service, [Approval No. 1059, 1060 & 1420(E)(1)(b), 16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [Approval No. 1059, 1060 & 1420(E)(1)(c), 16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [Approval No. 1059, 1060 & 1420(E)(1)(d), 16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [Approval No. 1059, 1060 & 1420(E)(1)(e), 16.3(e)]
- e. The permittee may seek to establish that a malfunction of C001, C002 and/or C003B that would result in noncompliance with any of the terms of Section I.B. of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that: [Approval No. 1059, 1060 & 1420(E)(2)]
- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation or operator error; [Approval No. 1059, 1060 & 1420(E)(2)(a)]
 - (2) The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance; [Approval No. 1059, 1060 & 1420(E)(2)(b)]
 - (3) Repairs necessary to bring the C001, C002 and/or C003B back to operating at their design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or materials needed should be shipped overnight where possible or practical. [Approval No. 1059, 1060 & 1420(E)(2)(c)]
 - (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed. [Approval No. 1059, 1060 & 1420(E)(2)(d)]
 - (5) Emissions during the period of time that the repairs were performed will not: [Approval No. 1059, 1060 & 1420(E)(2)(e)]

- (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and [Approval No. 1059, 1060 & 1420(E)(2)(e)(1)]
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard. [Approval No. 1059, 1060 & 1420(E)(2)(e)(2)]
- (6) The reasons that it would be impossible or impractical to cease the operation of P006 and/or P012 during said period. [Approval No. 1059, 1060 & 1420(E)(2)(f)]

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred, and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

- f. The number of polymerization batches conducted in the six polymerization esterification units (P001 – P006) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(3)]
- g. The number of polymerization batches conducted in the six polymerization units (P007-P012) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(4)]

2. Monitoring Requirements

- a. Scrubber level for control device C001 shall be monitored continuously. [29.6.3(b)]
- b. Scrubber liquor make-up rate for control device C001 shall be monitored twice per day. [29.6.3(b)]
- c. Outlet temperature and operating temperature for control device C002 shall be monitored continuously. [29.6.3(b)]
- d. Outlet temperature for control device C003B shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the scrubber level and make-up rate for control device C001 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- b. The permittee shall check the outlet temperature and operating temperature for control device C002 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- c. The permittee shall check the outlet temperature for control device C003B a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- d. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]
 - (1) The total number of polymerization batches conducted in the six polymerization esterification units (P001-P006). [Approval No. 2069(D)(1)(b)]
 - (2) The total number of polymerization batches conducted in the six polymerization units (P007-P012). [Approval No. 2069(D)(1)(c)]

Monthly and 12-month rolling totals shall be determined for the above items. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request.

4. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.B of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1059, 1060 & 1420(D)(6)]
- b. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that: [Approval No. 2069(D)(2)]
 - (1) The total of number batches processed in the six polymerization esterification units (P001-P006) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(a)]

- (2) The total of number batches processed in the six polymerization units (P007-P012) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(b)]

5. Other Requirements

- a. To the extent consistent with the requirements of Section I.B of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval No. 1059, 1060 & 1420(F)(1)]
- b. There shall be no bypassing of C001, C002 and/or C003B during times when VOC or HAP is being discharged to the device. As an exception to this prohibition, the Office of Air Resources may allow bypassing of C001, C002 and/or C003B to perform maintenance on the equipment, if the permittee can demonstrate, to the satisfaction of the Office of Air Resources, that:
 - (1) it is impossible or impractical to cease operation of the source during the period of time that maintenance is to be performed; and
 - (2) All possible steps will be taken to minimize emissions during the period of time that the maintenance will be performed; and
 - (3) Maintenance is to be performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such maintenance is completed as expeditiously as practicable. [Approval No. 1059, 1060 & 1420(F)(4)]

Maintenance activities on this equipment shall be conducted, as needed so as not to exceed lengths of shutdown specified in Table 1 of this permit. Additionally, in order to minimize emissions during the period of time that the maintenance will be performed, maintenance shall be conducted on only one device at a time.

Table 1

Unit	Air Pollution Control Device	Permitted Shutdown Time	Steps to Reduce Emissions
Scrubber	C001	<36 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
Catalytic Incinerator	C002	<48 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
RTO	C004	<72 Hours per year	The R-EG Building will be brought off-line; no wastewater will be transferred from WWST No. 2 to WWST No. 1 (during the initial 12 hours of the shutdown) and the agitator in WWST No. 1 and the mixer in WWST No. 2 will be turned off.

C. Alternative Operating Scenario No. 2 for Emission Units P006 and P012 (PBT process)

The following requirements are applicable to:

- Emission units P006 and P012 which are capable of manufacturing polybutylene terephthalate (PBT). The requirements applicable to those emission units when manufacturing PBT are contained in this alternative operating scenario.

1. Operating Requirements

- a. All emissions generated from vacuum venting of P006 following methanol distillation and butylene glycol distillation in the PBT process shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(7)]
- b. All emissions generated from P006 during methanol distillation and butylene glycol distillation in the PBT process shall be captured, contained and routed to C003B/C003A for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(6)]
- c. All emissions generated from vacuum venting of P012 during the polymerization reaction shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(1)]
- d. C001, C002, C003A and C003B shall be operated according to their design specifications whenever P006 and/or P012 are in operation or are emitting air contaminants. [16.2]

- e. In case of malfunction of C001, C002, C003A and/or C003B, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C001, C002, C003A and/or C003B is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P006 and/or P012 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [Approval No. 1059, 1060 & 1420(E)(1), 16.3]
- (1) Identification of the specific air pollution control system (ie. C001, C002, C003A and/or C003B) and the source on which it is installed (ie. P006), [Approval No. 1059, 1060 & 1420(E)(1)(a), 16.3(a)]
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service, [Approval No. 1059, 1060 & 1420(E)(1)(b), 16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [Approval No. 1059, 1060 & 1420(E)(1)(c), 16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [Approval No. 1059, 1060 & 1420(E)(1)(d), 16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [Approval No. 1059, 1060 & 1420(E)(1)(e), 16.3(e)]
- f. The permittee may seek to establish that a malfunction of C001, C002, C003A and/or C003B that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that: [Approval No. 1059, 1060 & 1420(E)(2)]
- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation or operator error; [Approval No. 1059, 1060 & 1420(E)(2)(a)]
 - (2) The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance; [Approval No. 1059, 1060 & 1420(E)(2)(b)]
 - (3) Repairs necessary to bring C001, C002, C003A and/or C003B back to operating at their design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or materials needed should be shipped overnight where possible or practical. [Approval No. 1059, 1060 & 1420(E)(2)(c)]

- (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed. [Approval No. 1059, 1060 & 1420(E)(2)(d)]
- (5) Emissions during the period of time that the repairs were performed will not: [Approval No. 1059, 1060 & 1420(E)(2)(e)]
 - (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and [Approval No. 1059, 1060 & 1420(E)(2)(e)(1)]
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard. [Approval No. 1059, 1060 & 1420(E)(2)(e)(2)]
- (6) The reasons that it would be impossible or impractical to cease the operation of P006 during said period. [Approval No. 1059, 1060 & 1420(E)(2)(f)]

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred, and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

- g. The number of polymerization batches conducted in the six polymerization esterification units (P001 – P006) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(3)]
- h. The number of polymerization batches conducted in the six polymerization units (P007-P012) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(4)]

2. Monitoring Requirements

- a. Scrubber level for control device C001 shall be monitored continuously. [29.6.3(b)]
- b. Scrubber liquor make-up rate for control device C001 shall be monitored twice per day. [29.6.3(b)]
- c. Outlet temperature and operating temperature for control device C002 shall be monitored continuously. [29.6.3(b)]
- d. Water flow rate and nitrogen flow rate for control device C003A shall be monitored once per shift. [29.6.3(b)]

- e. Outlet temperature for control device C003B shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the scrubber level and make-up rate for control device C001 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- b. The permittee shall check the outlet temperature and operating temperature for control device C002 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- c. The permittee shall check the water flow rate and nitrogen flow rate for control device C003A a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- d. The permittee shall check the outlet temperature for control device C003B a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- e. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]
 - (1) The total number of polymerization batches conducted in the six polymerization esterification units (P001-P006). [Approval No. 2069(D)(1)(b)]
 - (2) The total number of polymerization batches conducted in the six polymerization units (P007-P012). [Approval No. 2069(D)(1)(c)]

Monthly and 12-month rolling totals shall be determined for the above items. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request.

4. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.C. of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1059, 1060 & 1420(D)(6)]
- b. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that: [Approval No. 2069(D)(2)]
 - (1) The total of number batches processed in the six polymerization esterification units (P001-P006) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(a)]
 - (2) The total of number batches processed in the six polymerization units (P007-P012) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(b)]

5. Other Requirements

- a. To the extent consistent with the requirements of Section I.C of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval No. 1059, 1060 & 1420(F)(1)]
- b. There shall be no bypassing of C001, C002, C003A and/or C003B during times when VOC or HAP is being discharged to the device. As an exception to this prohibition, the Office of Air Resources may allow bypassing of C001, C002, C003A and/or C003B to perform maintenance on the equipment, if the permittee can demonstrate, to the satisfaction of the Office of Air Resources, that:
 - (1) It is impossible or impractical to cease operation of the source during the period of time that maintenance is to be performed; and
 - (2) All possible steps will be taken to minimize emissions during the period of time that the maintenance will be performed; and
 - (3) Maintenance is to be performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such maintenance is completed as expeditiously as practicable. [Approval No. 1059, 1060 & 1420(F)(4)]

Maintenance activities on this equipment shall be conducted, as needed so as not to exceed lengths of shutdown specified in Table 1 of this permit. Additionally, in order to minimize emissions during the period of time that the maintenance will be performed, maintenance shall be conducted on only one device at a time.

Table 1

Unit	Air Pollution Control Device	Permitted Shutdown Time	Steps to Reduce Emissions
Scrubber	C001	<36 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
Catalytic Incinerator	C002	<48 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
RTO	C004	<72 Hours per year	The R-EG Building will be brought off-line; no wastewater will be transferred from WWST No. 2 to WWST No. 1 (during the initial 12 hours of the shutdown) and the agitator in WWST No. 1 and the mixer in WWST No. 2 will be turned off.

D. Requirements for Emission Units P007, P008, P009, P010 and P011

The following requirements are applicable to:

- Emission units P007-P011, each of which is a Trinity Industries, Inc. PET polymerization vessels (P1-5 lines, respectively). P007-P011 are associated with air pollution control devices C001 and C002.
- Air pollution control device C001, which is a packed tower scrubber. C001 uses water as its scrubbing liquid.
- Air pollution control device C002, which is a B.G. Wickberg Company, Inc. Catalytic Oxidizer.

1. Operating Requirements

- a. All emissions generated from vacuum venting of P007 – P011 during its polymerization reaction shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 1059, 1060 & 1420(B)(1)]
- b. C001 and C002 shall be operated according to their design specifications whenever P007 – P011 are in operation or are emitting air contaminants. [16.2]
- c. In case of malfunction of C001 and/or C002, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C001 and/or C002 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P007-P011 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition

shall include but is not limited to, the following: [Approval No. 1059, 1060 & 1420(E)(1), 16.3]

- (1) Identification of the specific air pollution control system (ie. C001, and C002) and the source on which it is installed (ie. P007-P011), [Approval No. 1059, 1060 & 1420(E)(1)(a), 16.3(a)]
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service, [Approval No. 1059, 1060 & 1420(E)(1)(b), 16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [Approval No. 1059, 1060 & 1420(E)(1)(c), 16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [Approval No. 1059, 1060 & 1420(E)(1)(d), 16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [Approval No. 1059, 1060 & 1420(E)(1)(e), 16.3(e)]
- d. The permittee may seek to establish that a malfunction of C001 and/or C002 that would result in noncompliance with any of the terms of Section I.D of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that: [Approval No. 1059, 1060 & 1420(E)(2)]
- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation or operator error; [Approval No. 1059, 1060 & 1420(E)(2)(a)]
 - (2) The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance; [Approval No. 1059, 1060 & 1420(E)(2)(b)]
 - (3) Repairs necessary to bring C001 and/or C002 back to operating at their design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or materials needed should be shipped overnight where possible or practical. [Approval No. 1059, 1060 & 1420(E)(2)(c)]
 - (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed. [Approval No. 1059, 1060 & 1420(E)(2)(d)]
 - (5) Emissions during the period of time that the repairs were performed will not: [Approval No. 1059, 1060 & 1420(E)(2)(e)]

- (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and [Approval No. 1059, 1060 & 1420(E)(2)(e)(1)]
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard. [Approval No. 1059, 1060 & 1420(E)(2)(e)(2)]
- (6) The reasons that it would be impossible or impractical to cease the operation of P007-P011 during said period. [Approval No. 1059, 1060 & 1420(E)(2)(f)]

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred, and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

- e. The number of polymerization batches conducted in the six polymerization units (P007-P012) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(4)]

2. Monitoring Requirements

- a. Scrubber level for control device C001 shall be monitored continuously. [29.6.3(b)]
- b. Scrubber liquor make-up rate for control device C001 shall be monitored twice per day. [29.6.3(b)]
- c. Outlet temperature and operating temperature for control device C002 shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the scrubber level and make-up rate for control device C001 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]
- b. The permittee shall check the outlet temperature and operating temperature for control device C002 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]

c. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]

(1) The total number of polymerization batches conducted in the six polymerization units (P007-P012). [Approval No. 2069(D)(1)(c)]

Monthly and 12-month rolling totals shall be determined for each of the above items. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

4. Reporting Requirements

a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.D of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1059, 1060 & 1420(D)(6)]

b. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that: [Approval No. 2069(D)(2)]

(1) The total of number batches processed in the six polymerization units (P007-P012) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(b)]

5. Other Requirements

a. To the extent consistent with the requirements of Section I.D of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval No. 1059, 1060 & 1420(F)(1)]

b. There shall be no bypassing of C001 and/or C002 during times when VOC or HAP is being discharged to the device. As an exception to this prohibition, the Office of Air Resources may allow bypassing of C001 and/or C002 to perform maintenance on the equipment, if the permittee can demonstrate, to the satisfaction of the Office of Air Resources, that:

(1) it is impossible or impractical to cease operation of the source during the period of time that maintenance is to be performed; and

(2) All possible steps will be taken to minimize emissions during the period of time that the maintenance will be performed; and

(3) Maintenance is to be performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such maintenance is completed as expeditiously as practicable. [Approval No. 1059, 1060 & 1420(F)(4)]

Maintenance activities on this equipment shall be conducted, as needed so as not to exceed lengths of shutdown specified in Table 1 of this permit. Additionally, in order to minimize emissions during the period of time that the maintenance will be performed, maintenance shall be conducted on only one device at a time.

Table 1

Unit	Air Pollution Control Device	Permitted Shutdown Time	Steps to Reduce Emissions
Scrubber	C001	<36 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
Catalytic Incinerator	C002	<48 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
RTO	C004	<72 Hours per year	The R-EG Building will be brought off-line; no wastewater will be transferred from WWST No. 2 to WWST No. 1 (during the initial 12 hours of the shutdown) and the agitator in WWST No. 1 and the mixer in WWST No. 2 will be turned off.

E. Requirements for Emissions Units P022 and P060-P064

The following requirements are applicable to:

- Emission units P022, P060-P064, each of which is a die and filter tank.

1. Operating Requirements

- Equipment covers and dipping or rotating baskets shall be constructed of nonporous or nonabsorbent material. Covers must form a tight seal with the sides of P022 and P060-P064 and have no gaps or holes. [36.4.1]
- When the covers for P022 and P060-P064 are open, drafts at the same elevation as the tanks lip must not be greater than 40 m/min. (130 ft/min.) when measured 1 to 2 meters (3 to 7 feet) upwind. [36.4.2]
- Leaks shall be repaired immediately or P022 and P060-P064 shall be shut down [36.4.3]
- Equipment used in P022 and P060-P064 shall display a conspicuous summary of proper operating procedures consistent with minimizing emissions of organic solvents. [36.4.4]
- Spills shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the specifications in Condition I.E.1.j of this permit. [36.4.6]

- f. No porous or absorbent materials, such as sponges, fabrics, wood, or paper products, shall be placed in P022 and P060-P064. [36.4.7]
- g. The permittee has demonstrated that equivalent control has been achieved to the requirements contained in APC Regulation No. 36 sections 36.4.8 and 36.4.9 through the following measures, currently utilized at the facility:
 - (1) Use of triethylene glycol (TEG) as a cleaning solvent,
 - (2) The parts shall remain in the tanks until dripping ceases. When transferring the parts to the rinse tanks there shall be no dripping of the solvent.
 - (3) Placing parts in rinse tanks containing an aqueous bath to remove excess TEG. [36.4.8, 36.4.9 and Letter dated 13 December 2002 from Terrence Tuchon of the RIDEM Office of Air Resources to Drew Peters of Toray Plastics (America), Inc]
- h. All parts shall be oriented for best drainage. [36.4.10]
- i. When solvent is added to or drained from P022 and P060-P064, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface. [36.4.11]
- j. Solvent, waste solvent, still bottoms, and sump bottoms shall be stored in covered containers and waste solvent transferal or disposal shall not allow greater than 20 percent of the waste solvent (by weight) to evaporate into the atmosphere. The closed containers may contain a device that allows for pressure relief, providing that the device does not allow liquid solvent to drain from the container. [36.4.12]
- k. P022 and P060-P064 shall be maintained as recommended by the manufacturer of the equipment. [36.4.13]
- l. Operators must receive training in proper solvent cleaning procedures and, if requested by representatives of the Office of Air Resources or the USEPA during an inspection, shall complete and pass the applicable sections of the test on those procedures as shown in Appendix A of APC Regulation No. 36. [36.4.14]
- m. No work area fans shall be located and positioned so that they blow across the opening of P022 and P060-P064. [36.4.15]
- n. P022 and P060-P064 shall be located and positioned so that ventilation from an open window does not blow across the opening of P022 and P060-P064. [36.4.16]
- q. The following requirements are not applicable if emission units P022 and P060-P064 use a solvent which contains no more than 5% VOC or volatile HAP by weight. [36.2.4]

- (1) P022 and P060-P064 shall be equipped with an attached cover, below the lip exhaust, that can be operated easily with one hand. The covers shall be closed at all times except during parts entry and removal. [36.5.1]
- (2) P022 and P060-P064 shall be equipped with a tight fitting cover that is kept closed at all times except during the cleaning of parts. [36.5.2]
- (3) A freeboard ratio greater than or equal to 0.75 shall be used to control solvent emissions from P022 and P060-P064. [36.5.3]
- (4) If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard zone of P022 and P060-P064. [36.5.4]
- (5) The solvent height in P022 and P060-P064 shall not exceed the manufacturer's fill line. [36.5.6]
- (6) P022 and P060-P064 shall not use any solvent with a vapor pressure equal to or greater than 1.0 millimeters of mercury (mm Hg), measured at 20°C (68°F). The following are exempt from this requirement: [36.5.7]
 - (a) A cold cleaning unit with an internal volume of 1 liter or less; [36.5.7(a)]
 - (b) A cold cleaning unit used for special and extreme solvent cleaning, as defined in APC Regulation 36 Subsection 36.1.27, with the Director's approval; [36.5.7(b)]
 - (c) A cold cleaning unit which cannot be operated safely using a solvent that complies with the vapor pressure limit in APC Regulation 36 Subsection 36.1.27, with the Director's approval; [36.5.7(c)]
 - (d) A cold cleaning unit operated in a permanent total enclosure equipped with an air pollution control system with an overall VOC removal efficiency of 90% or greater, with the Director's approval. [36.5.7(d)]

2. Recordkeeping Requirements

a. The permittee shall maintain the following records:

- (1) Training provided to operators of P022 and P060-P064 for the lifetime of the units, [36.10.4, 29.6.3(b)]
- (2) The amount and type of solvent used in P022 and P060-P064 for each year, and [36.10.4(a), 29.6.3(b)]
- (3) The date and type of each equipment malfunction or leak and the date the malfunction or leak is repaired. [36.10.4(b), 29.6.3(b)]

F. Requirements for Emission Unit P023 and P098

The following requirements are applicable to:

- Emission unit P023, which is the wastewater collection, storage and treatment system. Wastewater streams converge at an underground mixing tank and are pumped in batches, to a series of wastewater storage tanks (Tanks Nos. 1 and 2) prior to being treated in sequencing batch reactor No. 2 and/or sequence batch reactor No. 1.
- Emission unit P098, which is a RV Industries, Inc. recovery ethylene glycol (R-EG) distillation process. P098 is used to remove impurities from contaminated ethylene glycol, and recover purified ethylene glycol.
- P023 and P098 are associated with air pollution control device C004, which is a 0.8 MMBTU/hr Adwest Technologies Regenerative Thermal Oxidizer Model No. 3.0RTO95, which burns natural gas.

1. Emission Limitations

a. Except as provided below, VOC emissions generated from P023 and P098 shall be captured, contained and routed to C004 prior to discharge to the atmosphere. C004 must reduce the acetaldehyde emissions by 98% or greater, unless outlet emissions are below 5 ppmv. [Approval No. 1059, 1060 & 1420(A)(2)]

At any time during the months of June, July, August and September, the permittee may remove the side panels from the Sequential Batch Reactor No. 2 in order to lower the temperature of the system and maintain optimal operation. [Approval No. 1059, 1060 & 1420(A)(2)]

2. Operating Requirements

a. The operating temperature of C004 shall be maintained at or above 1500°F whenever VOC is being discharged to the device. [Approval No. 1059, 1060 & 1420(B)(5), 29.6.3(a), 40 CFR 64]

- b. C004 shall be operated according to its design specifications whenever P023 and/or P098 are in operation or are emitting air contaminants. [16.2]
- c. In case of malfunction of C004, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C004 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P023 and P098 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [Approval No. 1059, 1060 & 1420(E)(1), 16.3]
- (1) Identification of the specific air pollution control system (ie. C004) and the source on which it is installed (ie. P023 and P098), [Approval No. 1059, 1060 & 1420(E)(1)(a), 16.3(a)]
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service, [Approval No. 1059, 1060 & 1420(E)(1)(b), 16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [Approval No. 1059, 1060 & 1420(E)(1)(c), 16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [Approval No. 1059, 1060 & 1420(E)(1)(d), 16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [Approval No. 1059, 1060 & 1420(E)(1)(e), 16.3(e)]
- d. The permittee may seek to establish that a malfunction of C004 that would result in noncompliance with any of the terms of Section I.F of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that: [Approval No. 1059, 1060 & 1420(E)(2)]
- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation or operator error; [Approval No. 1059, 1060 & 1420(E)(2)(a)]
 - (2) The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance; [Approval No. 1059, 1060 & 1420(E)(2)(b)]
 - (3) Repairs necessary to bring C004 back to operating at its design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or

materials needed should be shipped overnight where possible or practical. [Approval No. 1059, 1060 & 1420(E)(2)(c)]

- (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed. [Approval No. 1059, 1060 & 1420(E)(2)(d)]
- (5) Emissions during the period of time that the repairs were performed will not: [Approval No. 1059, 1060 & 1420(E)(2)(e)]
 - (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and [Approval No. 1059, 1060 & 1420(E)(2)(e)(1)]
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard. [Approval No. 1059, 1060 & 1420(E)(2)(e)(2)]
- (6) The reasons that it would be impossible or impractical to cease the operation of P023 and P098 during said period. [Approval No. 1059, 1060 & 1420(E)(2)(f)]

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred, and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

3. Monitoring Requirements

- a. The operating temperature of C004 shall be continuously monitored. [Approval No. 1059, 1060 & 1420(D)(4), 29.6.3(a), 40 CFR 64]

4. Recordkeeping Requirements

- a. The permittee shall continuously record the operating temperature of C004. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [Approval No. 1059, 1060 & 1420(D)(4), 29.6.3(a), 40 CFR 64]
- b. The permittee shall maintain the following records for the Sequential Batch Reactor No. 2:

- (1) The date and time that the side panels are removed; and,
- (2) The temperature in Sequential Batch Reactor No. 2 prior to removal of the side panels; and
- (3) The date and time that the side panels are re-installed. [Approval No. 1059, 1060 & 1420(D)(3)]

5. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.F of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1059, 1060 & 1420(D)(7)]
- b. The permittee shall notify the Office of Air Resources of all periods of operation in which the operating temperature of C004 was less than 1500°F. This information shall be provided in the semi-annual monitoring report required in Condition II.AA.2. [29.6.3(a), 40 CFR 64]

6. Other Requirements

- a. To the extent consistent with the requirements of Section I.F of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval No. 1059, 1060 & 1420(F)(1)]
- b. There shall be no bypassing of C004 during times when VOC or HAP is being discharged to the device. As an exception to this prohibition, the Office of Air Resources may allow bypassing of C004 to perform maintenance on the equipment, if the permittee can demonstrate, to the satisfaction of the Office of Air Resources, that:
 - (1) it is impossible or impractical to cease operation of the source during the period of time that maintenance is to be performed; and
 - (2) All possible steps will be taken to minimize emissions during the period of time that the maintenance will be performed; and
 - (3) Maintenance is to be performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such maintenance is completed as expeditiously as practicable. [Approval No. 1059, 1060 & 1420(F)(4)]

Maintenance activities on this equipment shall be conducted, as needed so as not to exceed lengths of shutdown specified in Table 1 of this permit. Additionally, in order to minimize emissions during the period of time that the maintenance will be performed, maintenance shall be conducted on only one device at a time.

Table 1

Unit	Air Pollution Control Device	Permitted Shutdown Time	Steps to Reduce Emissions
Scrubber	C001	36 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
Catalytic Incinerator	C002	48 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
RTO	C004	72 Hours per year	The R-EG Building will be brought off-line; no wastewater will be transferred from WWST No. 2 to WWST No. 1 (during the initial 12 hours of the shutdown) and the agitator in WWST No. 1 and the mixer in WWST No. 2 will be turned off.

G. Requirements for Emissions Unit P035

The following requirements are applicable to:

- Emission unit P035, which is a 0.08 MMBTU/hr Pollution Control Products Co. A3 Cleaning Oven, Model No. IGG 27, which burns natural gas.

1. Emission limitations

a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

- The secondary chamber/stack shall be equipped with a temperature controller and indicator. [Approval No. 1240(1)]
- The thermocouple shall be located as close to the secondary chamber exit as possible. [Approval No. 1240(2)]
- The temperature controller shall be set to maintain secondary chamber temperature at 1400°F or greater. [Approval No. 1240(3)]
- The oven door shall remain closed whenever material is being processed. [Approval No. 1240(4)]

3. Testing Requirements

a. Opacity

Test for determining compliance with the opacity emissions limitations specified in Condition I.G.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

H. Requirements for Emissions Units B001 and B002

The following requirements are applicable to:

- Emission units B001 and B002, each of which are 38.6 MMBTU/hr (oil) / 40.4 MMBTU/hr (natural gas) Nebraska boiler, Model No. NS-C-46, equipped with a Coen DAF low NO_x burner. B001 and B002 are capable of burning natural gas and #2 fuel oil.

1. Emission Limitations

a. Natural Gas Firing

(1) Nitrogen oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.08 lbs per million BTU heat input or 3.23 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(A)(1)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.4 lbs per million BTU heat input or 16.20 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(A)(1)(b)(1)]

(3) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of nonmethane hydrocarbons discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.02 lbs per million BTU heat input or 0.81 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(A)(1)(c)(1)]

(4) Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.10 lbs per million BTU heat input. [13.2.1]

b. Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.11 lbs per million BTU heat input or 4.25 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(A)(2)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.4 lbs per million BTU heat input or 15.46 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(A)(2)(b)]

(3) Sulfur Dioxide (SO₂)

(a) All fuel burned in B001 and B002 shall contain no more than 0.05 percent sulfur by weight. [8.2, Approval Nos. 969, 1209 & 1363(A)(2)(c)(1), 40 CFR 60.42c(d)]

(b) The emission rate of sulfur dioxide discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 1.97 lbs/hr. [Approval Nos. 969, 1209 & 1363(A)(2)(c)(2)]

(4) Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.10 lbs per million BTU heat input or 3.86 lbs/hr, whichever is more stringent. [13.2.1, Approval Nos. 969, 1209 & 1363(A)(2)(d)]

(5) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from the exhaust flue of B001 and B002 shall not exceed 0.02 lbs per million BTU heat input or 0.77 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(A)(2)(e)]

c. Visible emissions from the exhaust flue of B001 and B002 shall not exceed 10% opacity (six-minute average). [Approval Nos. 969, 1209 & 1363(A)(3), 40 CFR 60.43c(c), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

- a. The maximum firing rate of B001, when operating alone, shall not exceed 40,423 ft³/hr of natural gas or 275 gal/hr of fuel oil. [Approval Nos. 969, 1209 & 1363(C)(1)]
- b. The maximum firing rate of B002, when operating alone, shall not exceed 40,423 ft³/hr of natural gas or 275 gal/hr of fuel oil. [Approval Nos. 969, 1209 & 1363(C)(2)]
- c. The maximum combined firing rate of B001 and B002, when B003 is operating, shall not exceed 50,529 ft³/hr of natural gas or 341 gal/hr of fuel oil. [Approval Nos. 969, 1209 & 1363(C)(3)]
- d. The maximum combined firing rate of B001 and B002, when B003 is not operating, shall not exceed 80,846 ft³/hr of natural gas or 550 gal/hr of fuel oil. [Approval Nos. 969, 1209 & 1363(C)(4)]
- e. B001 and B002 shall be tuned at least once per year in accordance with the procedure described in Appendix A of Air Pollution Control Regulation No. 27. [Approval Nos. 969, 1209 & 1363(C)(7), 29.6.3(b)]

3. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity emission limitations specified in Condition I.H.1.c of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.45c(a)(8)]

b. Sulfur Oxides

- (1) Compliance with fuel oil sulfur limits contained in Condition I.H.1.b.3(a) of this permit may be determined based on a certification from the fuel supplier. [Approval Nos. 969, 1209 and 1363(F)(1), 40 CFR 60.44c(h), 29.6.3(b)]
- (2) Fuel supplier certification shall include the following information: [40 CFR 60.48c(f)]
 - (a) The name of the supplier. [Approval Nos. 969, 1209 and 1363(F)(2)(a), 40 CFR 60.48c(f)(1)(i)]
 - (b) A statement that the oil complies with the specification for fuel oil number 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel

Oils.” [Approval Nos. 969, 1209 and 1363(F)(2)(b), 40 CFR 60.48c(f)(1)(ii)]

- (c) The sulfur content of the fuel oil; and [Approval Nos. 969, 1209 and 1363(F)(2)(c), 40 CFR 60.48c(f)(1)(iii)]
 - (d) The method used to determine the sulfur content of the oil. [Approval Nos. 969, 1209 and 1363(F)(2)(d)]
- (3) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the oil in the initial tank of oil to be fired in emission units B001 and B002 and after each new shipment of oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. [40 CFR 60.46c(d)(2), Approval Nos. 969, 1209 and 1363(F)(3)]

c. Particulates

Compliance with the particulate emissions limitations contained in Conditions I.H.1.a(4) and I.H.1.b(4) of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations contained in Conditions I.H.1.a(4) and I.H.1.b(4) of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

4. Monitoring Requirements

- a. Continuous emission monitoring equipment shall be operated and maintained for opacity when B001 and/or B002 is operating on fuel oil. [6.2.1, Approval Nos. 969, 1209 & 1363(D)(1)]
- b. Natural gas and fuel oil flows to B001 and B002 shall be continuously measured. [Approval Nos. 969, 1209 & 1363(D)(3)]

5. Recordkeeping Requirements

- a. Natural gas and fuel oil flows to B001 and B002 shall be continuously recorded. [Approval Nos. 969, 1209 & 1363(D)(3)]
- b. The permittee shall maintain records of the hours of operation and the quantity of fuel combusted during each day for B001 and B002. [Approval Nos. 969, 1209 & 1363(G)(4), 40 CFR 60.48c(g)]
- c. The permittee shall maintain records verifying that a tune-up has been performed in accordance with the procedure described in Appendix A of Air Pollution Control Regulation No. 27 that includes the following information:
 - (1) The date the tune-up was performed.
 - (2) The name of the person who performed the tune-up.
 - (3) The final excess oxygen setting.
 - (4) The O₂/CO curve or O₂/smoke curve that has been developed as part of the procedure. [Approval Nos. 969, 1209 & 1363(G)(7), 27.6.8(a-d), 29.6.3(b)]
- d. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of B001 and B002. [40 CFR 60.7(b)]

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.H of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 969, 1209 and 1363(G)(6)]
- b. The permittee shall submit copies of all fuel supplier certifications or fuel oil analyses to the Office of Air Resources for each calendar quarter. This quarterly submittal shall include a certified statement, signed by the permittee, that the records of fuel supplier certifications or fuel oil analyses submitted represent all of the fuel combusted during the quarter. Each quarterly report shall be postmarked by the 30th

day following the end of the calendar quarter. [Approval Nos. 969, 1209 and 1363(G)(5), 40 CFR 60.48c(e)(11)]

7. Other Requirements

- a. To the extent consistent with the requirements of Section I.H of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval Nos. 969, 1209 & 1363(I)(1)]
- b. The sulfur dioxide emission limits and fuel oil sulfur limits in Section I.H of this permit shall apply at all times, including periods of startup, shutdown and malfunction. [40 CFR 60.42c(i)]
- c. The particulate matter and opacity standards in Section I.H of this permit shall apply at all times, except during periods of startup, shutdown and malfunction. [40 CFR 60.43c(d)]
- d. This facility is subject to the requirements of the Federal New Source Performance Standards 40 CFR 60, Subpart A (General Provisions), and Dc (Small Industrial – Commercial – Institutional Steam Generating Units). [Approval Nos. 969, 1209 & 1363(I)(4)]
- e. At all times, including periods of startup, shutdown and malfunctions, the permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the facility. [40 CFR 60.11(d)]

I. Requirements for Emissions Unit B003

The following requirements are applicable to:

- Emission unit B003, which is a 93.6 MMBTU/hr (oil) / 98.5 MMBTU/hr (natural gas) Nebraska boiler, Model No. NS-E-68, equipped with a Coen low NO_x burner with flue gas recirculation. B003 is capable of burning natural gas and #2 fuel oil.

1. Emission Limitations

- a. Natural Gas Firing
 - (1) Nitrogen oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.034 lbs per million BTU heat input

or 3.35 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(B)(1)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.073 lbs per million BTU heat input or 7.19 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(B)(1)(b)]

(3) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of nonmethane hydrocarbons discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.0042 lbs per million BTU heat input or 0.41 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(B)(1)(c)]

b. Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.10 lbs per million BTU heat input. [13.2.1]

c. Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.076 lbs per million BTU heat input or 7.10 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(B)(2)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.078 lbs per million BTU heat input or 7.29 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(B)(2)(b)]

(3) Sulfur Dioxide (SO₂)

(a) All fuel burned in B003 shall contain no more than 0.05 percent sulfur by weight. [8.2, Approval Nos. 969, 1209 & 1363(B)(2)(c)(1), 40 CFR 60.42c(d)]

(b) The emission rate of sulfur dioxide discharged to the atmosphere from the exhaust flue of B003 shall not exceed 4.77 lbs/hr. [Approval Nos. 969, 1209 & 1363(B)(2)(c)(2)]

(4) Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.04 lbs per million BTU heat input or 3.74 lbs/hr, whichever is more stringent. [13.2.1, Approval Nos. 969, 1209 & 1363(B)(2)(d)]

(5) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from the exhaust flue of B003 shall not exceed 0.0067 lbs per million BTU heat input or 0.63 lbs/hr, whichever is more stringent. [Approval Nos. 969, 1209 & 1363(B)(2)(e)]

- d. Visible emissions from the exhaust flue of B003 shall not exceed 10% opacity (six-minute average). [Approval Nos. 969, 1209 & 1363(B)(3), 40 CFR 60.43(c), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

- a. The maximum firing rate of B003, shall not exceed 98,134 ft³/hr of natural gas or 668 gal/hr of fuel oil at all times. [Approval Nos. 969, 1209 & 1363(C)(5)]
- b. The flue gas recirculation system for B003 shall be in full operation whenever B003 is in operation. [Approval Nos. 969, 1209 & 1363(C)(6)]

3. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity emission limitations specified in Condition I.I.1.c of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.45c(a)(8)]

b. Sulfur Oxides

- (1) Compliance with fuel oil sulfur limits contained in Condition I.I.1.b.3(a) of this permit may be determined based on a certification from the fuel supplier. [Approval Nos. 969, 1209 and 1363(F)(1), 40 CFR 60.44c(h)]
- (2) Fuel supplier certification shall include the following information: [40 CFR 60.48c(f)]
- (a) The name of the supplier. [Approval Nos. 969, 1209 and 1363(F)(2)(a), 40 CFR 60.48c(f)(1)(i)]

- (b) A statement that the oil complies with the specification for fuel oil number 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils." [Approval Nos. 969, 1209 and 1363(F)(2)(b), 40 CFR 60.48c(f)(1)(ii)]
 - (c) The sulfur content of the fuel oil; and [Approval Nos. 969, 1209 and 1363(F)(2)(c), 40 CFR 60.48c(f)(1)(iii)]
 - (d) The method used to determine the sulfur content of the oil. [Approval Nos. 969, 1209 and 1363(F)(2)(d)]
- (3) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the oil in the initial tank of oil to be fired in emission unit B003 and after each new shipment of oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. [40 CFR 60.46c(d)(2), Approval Nos. 969, 1209 and 1363(F)(3)]

c. Particulates

Compliance with the particulate emissions limitations contained in Conditions I.I.1.a(4) and I.I.1.b(4) of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations contained in Conditions I.I.1.a(4) and I.I.1.b(4) of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

d. Nitrogen Oxides

- (1) Emissions testing for B003 shall be conducted annually to determine compliance with the nitrogen oxides emission limitation for natural gas and fuel oil firing. [Approval Nos. 969, 1209 & 1363(E)(1)]
- (2) A stack testing protocol shall be submitted to the Office of Air Resource for review and approval prior to the performance of any stack tests. The permittee shall provide the Office of Air Resources at least 60 days prior notice of any performance test. [Approval Nos. 969, 1209 & 1363(E)(2), 27.5.7(b)]
- (3) All test procedures used for stack testing shall be approved by the Office of Air Resources prior to the performance of any stack tests. [Approval Nos. 969, 1209 & 1363(E)(3), 27.5.7(c)]
- (4) The permittee shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide necessary utilities for sampling and testing equipment. [Approval Nos. 969, 1209 & 1363(E)(4), 27.5.7(d)]
- (5) All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitation. [Approval Nos. 969, 1209 & 1363(E)(5), 27.5.7(e)]
- (6) A final report of the results of stack testing shall be submitted to the Office of Air Resources no later than 60 days following completion of the testing. [Approval Nos. 969, 1209 & 1363(E)(6), 27.5.7(g)]
- (7) All stack testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable. [Approval Nos. 969, 1209 & 1363(E)(7), 27.5.7(f)]
- (8) Emission testing shall consist of 3 – one hour test runs. Compliance with the emission limitation must be demonstrated for each test run. [27.5.5, 40 CFR 60.8(f)]

4. Monitoring Requirements

- a. Continuous emission monitoring equipment shall be operated and maintained for opacity when B003 is operating on fuel oil. [6.2.1, Approval Nos. 969, 1209 & 1363(D)(1)]
- b. Natural gas and fuel oil flows to B003 shall be continuously measured. [Approval Nos. 969, 1209 & 1363(D)(3), 29.6.3(a), 40 CFR 64]
- c. The oxygen content of the flue gas (%) shall be monitored continuously for B003. [29.6.3(a), 40 CFR 64]

- d. The Flue Gas Recirculation (FGR) damper position (% open) shall be monitored continuously for B003. [Approval Nos. 969, 1209, & 1363(D)(2), 29.6.3(a), 40 CFR 64]

5. Recordkeeping Requirements

- a. Natural gas and fuel oil flows to B003 shall be continuously recorded. [Approval Nos. 969, 1209 & 1363(D)(3), 29.6.3(a), 40 CFR 64]
- b. The permittee shall maintain records of the hours of operation and the quantity of fuel combusted during each day for B003. [Approval Nos. 969, 1209 & 1363(G)(4), 40 CFR 60.48c(g)]
- c. The oxygen content of the flue gas (%) of B003 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- d. The permittee shall record the oxygen content of the flue gas, the fuel flow rate, and the damper position (% open) of the FGR of B003 a minimum of once per day. The date, time and measurement shall be recorded. [29.6.3(a), 40 CFR 64]
- e. Natural gas and fuel oil flows, the oxygen content of the flue gas (%) and the FGR damper position (% open) of B003 shall be recorded during each stack test conducted pursuant to Condition I.I.3.d. [29.6.3(a), 40 CFR 64]
- f. The permittee shall maintain a record of the boiler load and corresponding FGR damper position based on the most recent adjustment/calibration of the FGR damper control system. [29.6.3(a), 40 CFR 64]
- g. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of B003. [40 CFR 60.7(b)]

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.I of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 969, 1209 and 1363(G)(6)]
- b. The permittee shall submit copies of all fuel supplier certifications or fuel oil analyses to the Office of Air Resources for each calendar quarter. This quarterly submittal shall include a certified statement, signed by the permittee, that the records of fuel supplier certifications or fuel oil analyses submitted represent all of the fuel combusted during the quarter. Each quarterly report shall be postmarked by the 30th day following the end of the calendar quarter. [Approval Nos. 969, 1209 and 1363(G)(5), 40 CFR 60.48c(e)(11)]
- c. The permittee shall notify the Office of Air Resources whenever the oxygen content of the flue gas from B003 is less than 1.9% or greater than 10%.when B003 is burning natural gas. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]

- d. The permittee shall notify the Office of Air Resources whenever the oxygen content of the flue gas from B003 is less than 3.0% or greater than 7.0%.when B003 is burning fuel oil. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]
- e. The permittee shall notify the Office of Air Resources whenever the damper position of the FGR fan for B003 is not in the correct position for the corresponding boiler load. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]

7. Other Requirements

- a. To the extent consistent with the requirements of Section I.I of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the preconstruction permit application. [Approval Nos. 969, 1209 & 1363(I)(1)]
- b. The sulfur dioxide emission limits and fuel oil sulfur limits in Section I.I of this permit shall apply at all times, including periods of startup, shutdown and malfunction. [40 CFR 60.42c(i)]
- c. The particulate matter and opacity standards in Section I.I of this permit shall apply at all times, except during periods of startup, shutdown and malfunction. [40 CFR 60.43c(d)]
- d. This facility is subject to the requirements of the Federal New Source Performance Standards 40 CFR 60, Subpart A (General Provisions), and Dc (Small Industrial – Commercial – Institutional Steam Generating Units). [Approval Nos. 969, 1209 & 1363(I)(4)]
- e. At all times, including periods of startup, shutdown and malfunctions, the permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the facility. [40 CFR 60.11(d)]

J. Requirements for Emission Units B010, B011 and B012

The following requirements are applicable to:

- Emission unit B010, which is a 220 HP John Deere Internal Combustion Engine, Model No. 6076, which burn #2 fuel oil. B010 is an emergency/standby unit.
- Emission unit B011, which is a 522 HP Detroit Diesel Internal Combustion Engine, Model No. 8V-92TA, which burn #2 fuel oil. B011 is an emergency/standby unit.

- Emission unit B012, which is a 593 HP Detroit Diesel Internal Combustion Engine, Model No. 8V-92TA, which burn #2 fuel oil. B012 is an emergency/standby unit.

1. Emission Limitations

a. Opacity

The permittee shall not emit into the atmosphere any air contaminant for a period or periods aggregating more than three minutes in any one hour which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Sulfur oxides

Unless the Director declares in writing after a hearing that a shortage of low sulfur fuel exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight. [8.2]

2. Operating Requirements

a. B010, B011 and B012 shall be operated only as a mechanical or electrical power source when the primary power source has been rendered inoperable. This does not include power interruptions pursuant to an interruptible power service agreement. [27.1.8]

b. B010, B011 and B012 shall be operated less than 500 hours each, during any consecutive twelve (12) month period. If the hours of operation for either B010, B011 or B012 exceed 500 hours each in any 12 month period, the unit shall immediately be in compliance with RACT as specified in APC Regulation No. 27. [27.2.3]

3. Monitoring Requirements

a. The permittee shall maintain a non-resettable elapsed time meter on B010, B011 and B012 to indicate, in cumulative hours, the elapsed engine operating time. [27.6.10(b)]

4. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity emission limitations specified in Condition I.J.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

b. Sulfur oxides

Compliance with the sulfur limitations contained in Condition I.J.1.b of this permit shall be determined by the procedures referenced in Condition II.U.2 of this permit. [29.6.3(b)]

5. Recordkeeping Requirements

- a. The permittee shall on a monthly basis, no later than five (5) days after the first of each month, determine and record the hours of operation for B010, B011 and B012 for the previous twelve (12) month period. [27.6.10(c)]

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources, in writing, whenever the hours of operation in any twelve (12) month period exceeds 500 hours for B010, B011 or B012. [27.6.10(d)]

K. Requirements for Emission Units T001, T002, T003 and T007

The following requirements are applicable to:

- Emission units T001 and T002, which are two 72,000 gallon ethylene glycol storage tanks Nos. P107-02-(1) and P107-02-(2) respectively. T001 and T002 are equipped with a fixed roof.
- Emission unit T003, which is a 39,750 gallon recovered ethylene glycol storage tank No. P107-09(1). T003 is equipped with a fixed roof.
- Emission unit T007, which is a 80,000 gallon #2 fuel oil storage tank No. L112-01-11. T007 is equipped with a fixed roof.

There are no specific applicable requirements for T001, T002, T003 and T007. This does not relieve the permittee from compliance with the provisions of the Facility Requirements in Section I.Y. or the General Conditions, outlined in Section II of this permit, as they apply to T001, T002, T003 and T007.

L. Requirements for Emission Units T004 and P054

The following requirements are applicable to:

- Emission unit T004, which is a 15,850 gallon dimethyl terephthalate (DMT) storage tank No. P611-060(1). T004 is equipped with a fixed roof.
- Emission unit P054, which is the DMT Melting Tank. Crushed DMT briquets are melted into a liquid.
- T004 and P054 are associated with air pollution control device C018, which is a Metfab Engineering unpacked water scrubber.

1. Operating Requirements

- a. C018 shall be operated according to its design specifications whenever T004 and/or P054 are in operation or are emitting air contaminants. [16.2]
- b. In case of malfunction of C018, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C018 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate T004 and/or P054 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [16.3]
 - (1) Identification of the specific air pollution control system (ie. C018) and the source on which it is installed (ie. T004 and/or P054), [16.3(a)]
 - (2) The expected period of time that control system will be malfunctioning or out of service, [16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.3(c)]
 - (4) Measures that will be taken to minimize the length of during said period, and [16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [16.3(e)]

2. Monitoring Requirements

- a. Make-up water pressure for control device C018 shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the make-up water pressure for control device C018 a minimum of once per day and the date, time and a measurement shall be recorded. [29.6.3(b)]

M. Requirements for Emission Unit T010

The following requirements are applicable to:

- Emission unit T010, which is a 48,550 gallon recovered methanol tank No. P607-01-(1). T010 is equipped with a fixed roof.
- T010 is associated with air pollution control device C016, which is a Metfab Engineering Unpacked tower scrubber. C016 is divided into two sections (upper and lower), both sections containing scrubbant. C016 uses water as its scrubbing liquid.

1. Emission Limitations

- a. Air pollution control device C016 shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. [40 CFR 60.112b(a)(3)(ii)]

2. Operating Requirements

- a. T010 shall be equipped with a closed vent system and C016. [40 CFR 60.112b(a)(3)]
- b. The closed vent system shall be designed to collect all VOC vapors and gases discharged from T010 and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV. [40 CFR 60.112b(a)(3)(i)]
- c. The permittee shall operate the closed vent system and C016 and monitor the parameters of the closed vent system and C016 in accordance with the operating plan submitted to the Office of Air Resources. [40 CFR 60.113b(c)(2)]
- d. C016 shall be operated according to its design specifications whenever T010 is in operation or is emitting air contaminants. [16.2]
- e. In case of malfunction of C016, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C016 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate T010 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [16.3]
 - (1) Identification of the specific air pollution control system (ie. C016) and the source on which it is installed (ie. T010), [16.3(a)]
 - (2) The expected period of time that control system will be malfunctioning or out of service, [16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.3(c)]
 - (4) Measures that will be taken to minimize the length of during said period, and [16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [16.3(e)]
- f. At all times, including periods of startup, shutdown and malfunctions, the permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be

based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the facility. [40 CFR 60.11(d)]

3. Monitoring Requirements

- a. The permittee shall continuously monitor the water flow rate and nitrogen flow rate parameters of the closed vent system and C016 in accordance with the operating plan submitted to the Office of Air Resources. [40 CFR 60.113b(c)(2), 29.6.3(a), 40 CFR 64]

4. Recordkeeping Requirements

- a. The permittee shall keep a copy of the operating plan submitted to the Office of Air Resources. [40 CFR 60.115b(c)(1)]
- b. The permittee shall check the water flow rate and nitrogen flow rate for control device C016 a minimum of once per shift and the date, time and a measurement shall be recorded. [40 CFR 60.115b(c)(2)]
- c. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this unit; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device required by 40 CFR 60 is inoperative. [40 CFR 60.7(b)]
- d. The permittee shall keep readily accessible records showing the dimension of T010 and an analysis showing the capacity of T010. [40 CFR 60.116b(b)]
- e. The permittee shall maintain the records specified in Condition I.M.4.e of this permit for the life of the source. [40 CFR 60.116b(a)]

N. Requirements for Emission Units P026, P038, P077 and P078

The following requirements are applicable to:

- Emission unit P026, which is a Hart Engineering (Field Installed Piping) L1 chip and RIK pellet transfer lines. P026 is associated with air pollution control device C006, which is a MAC pulse jet bag house, Model No. 39AVSC49.
- Emission unit P038, which is a Catalyst Prep CA grinder vent. P038 removes dust when the calcium acetate is ground. P038 is associated with air pollution control device C019 which is a Eirich Machines pulse jet bag house, Model No. FBD-200.
- Emission unit P077, which is an Arden Engineering (Field Installed Piping) L2 chip transfer line. P077 is associated with air pollution control device C007, which is a MAC pulse jet bag house, Model No. 39AVSC49.

- Emission unit P078, which is an Arden Engineering (Field Installed Piping) L3 chip transfer line. P078 is associated with air pollution control device C008, which is a MAC pulse jet bag house, Model No. 39AVSC49.

1. Emission Limitations

a. Opacity

The permittee shall not emit into the atmosphere any air contaminant for a period or periods aggregating more than three minutes in any one hour which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

a. C006, C007, C008 and C019 shall be operated according to their design specifications whenever C006, C007, C008 and/or C009 are in operation or are emitting air contaminants. [16.2]

b. In case of malfunction of C006, C007, C008 and/or C019, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C006, C007, C008 and/or C019 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P026, P038, P077 and/or P078 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [16.3]

- (1) Identification of the specific air pollution control system (ie. C006, C007, C008 and/or C019) and the source on which it is installed (ie. P026, P038, P077 and/or P078), [16.3(a)]
- (2) The expected period of time that control system will be malfunctioning or out of service, [16.3(b)]
- (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.3(c)]
- (4) Measures that will be taken to minimize the length of during said period, and [16.3(d)]
- (5) The reasons it would be impossible or impractical to cease the source operation during said period. [16.3(e)]

3. Monitoring Requirements

- a. Pressure drop across control devices C006, C007, C008 and C019 shall be monitored continuously. [29.6.3(b)]

4. Testing Requirements

- a. Opacity

Tests for determining compliance with the opacity emissions limitations specified in Condition I.N.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

5. Recordkeeping Requirements

- a. The permittee shall check the pressure drop for control devices C006, C007, C008 and C019 a minimum of once per day and the date, time and a measurement shall be recorded. If the control devices are not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]

O. Requirements for Emission Units P030, P031, P032, P033, P034, P108

The following requirements are applicable to:

- Emission unit P030, which is a Kasuga Denki Electronics L1-EC generator, Model No. HF-802. P030 is associated with air pollution control device C009, which is a Pillar Technologies, Inc. Ozone Destroyer, Model No. AB5854-2. C009 consists of a homogeneous manganese dioxide (MnO_2) catalyst which is enclosed within an aluminized steel shell; the inlet duct and outlet duct are connected to the shell.
- Emission unit P031, which is a Kasuga Denki Electronics L2-EC generator, Model No. HF-802. P031 is associated with air pollution control device C010, which is a Pillar Technologies, Inc. Ozone Destroyer, Model No. AB5854-2. C010 consists of a homogeneous manganese dioxide (MnO_2) catalyst which is enclosed within an aluminized steel shell; the inlet duct and outlet duct are connected to the shell.
- Emission unit P032, which is a Kasuga Denki, Inc. A3-EC generator, Model No. HF-802. P032 is associated with air pollution control device C011, which is a Pillar Technologies, Inc. Ozone Destroyer, Model No. AB5876-1. C011 consists of a homogeneous manganese dioxide (MnO_2) catalyst that is enclosed within an aluminized steel shell; the inlet and outlet ducts are connected to the shell.
- Emission unit P033, which is a Kasuga Denki, Inc. A4-EC generator, Model No. HF-802. P033 is associated with air pollution control device C012, which is a Pillar Technologies, Inc. Ozone Destroyer, Model No. AB5964-2. C012 consists of a homogeneous manganese dioxide (MnO_2)

catalyst which is enclosed within an aluminized steel shell; the inlet duct and outlet duct are connected to the shell.

- Emission unit P034, which is a Kasuga Denki, Inc. A5-EC generator, Model No. HF-802. P034 is associated with air pollution control device C013, which is a Pillar Technologies, Inc. Ozone Destroyer, Model No. AB5964-2. C013 consists of a homogeneous manganese dioxide (MnO_2) catalyst which is enclosed within an aluminized steel shell; the inlet duct and outlet duct are connected to the shell.
- Emission unit P108, which is a Pillar Technologies Universal Corona Treater Station, Model No. CG2063-44. P108 is associated with air pollution control device C021, which is a Pillar Technologies, Inc. Ozone Destroyer, Model No. AB5964-2. C021 consists of a homogeneous manganese dioxide (MnO_2) catalyst which is enclosed within an aluminized steel shell; the inlet duct and outlet duct are connected to the shell.

1. Operating Requirements

- a. C009, C010, C011, C012, C013 and C021 shall be operated according to their design specifications whenever P030, P031, P032, P033, P034 and/or P108 are in operation or are emitting air contaminants. [16.2]
- b. In case of malfunction of C009, C010, C011, C012, C013 and/or C021, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C009, C010, C011, C012, C013 and/or C021 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P030, P031, P032, P033, P034 and/or P108 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [16.3]
 - (1) Identification of the specific air pollution control system (i.e., C010, C011, C012, C013 and/or C021) and the source on which it is installed (i.e. P030, P031, P032, P033, P034 and/or P108), [16.3(a)]
 - (2) The expected period of time that control system will be malfunctioning or out of service, [16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [16.3(e)]

2. Monitoring Requirements

- a. Pressure drop across control devices C009, C010, C011, C012, C013 and C021 shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the pressure drop for control devices C009, C010, C011, C012, C013 and C021 a minimum of once per day and the date, time and a measurement shall be recorded. If the control devices are not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]

P. Requirements for Emission Units B004-B009, P046, P047, P048, P049, P050 and P051

The following requirements are applicable to:

- Emission units B004 and B005, each of which is a 4.31 MMBTU/Hr., First Thermal Systems furnace, Model No. 200-4-HHC-NA-G-FM. B004 and B005 are capable of burning propane and natural gas.
- Emission units B006 and B007, each of which is a 4.8 MMBTU/Hr., First Thermal Systems furnace, Model No. 200-4-HHC-NA-6-FM. B006 and B007 are capable of burning propane and natural gas.
- Emission unit B008, which is a 4.39 MMBTU/Hr., First Thermal Systems furnace, Model No. 300-5-2-HEHC-NA-LONOX-G-F-M-N4. B008 is capable of burning propane and natural gas.
- Emission unit B009, which is a 5.77 MMBTU/Hr., First Thermal Systems furnace, Model No. 300-3-2-HEHC-NA-LONOX-G-F-M-N4. B009 is capable of burning propane and natural gas.
- Emission unit P046, which is a Marshall & Williams A3 Tenter Oven. This unit heats and stretches polypropylene film. P046 is capable of burning propane and natural gas.
- Emission unit P047, which is a Marshall & Williams A4 Tenter Oven. This unit heats and stretches polypropylene film. P047 is capable of burning propane and natural gas.
- Emission unit P048, which is a Marshall & Williams A5 Tenter Oven. This unit heats and stretches polypropylene film. P048 is capable of burning propane and natural gas.
- Emission unit P049, which is a Mitsubishi Heavy Industries Ltd. A3 Die Vent. This unit Extrudes and forces polypropylene through a die onto a casting drum, which transforms it into a film.

- Emission unit P050, which is a Mitsubishi Heavy Industries Ltd. A4 Die Vent, Model No. 175D/220D. This unit Extrudes and forces polypropylene through a die onto a casting drum, which transforms it into a film.
- Emission unit P051, which is a Mitsubishi Heavy Industries Ltd. A5 Die Vent, Model No. 175D/220D. This unit Extrudes and forces polypropylene through a die onto a casting drum, which transforms it into a film.

There are no specific applicable requirements for B004-B009 and P046-P051. This does not relieve the permittee from compliance with the provisions of the General Conditions, outlined in Section II of this permit, as they apply to for B004-B009, P014 and P046-P051.

Q. Requirements for Emission Units T011, T012, T013, P068 and P069

The following Requirements are applicable to:

- Emission unit T0111, which is a nitric acid storage tank.
- Emission unit T012, which is a neutralization nitric acid tank.
- Emission unit T013, which is an indoor nitric acid storage tank.
- Emission unit P068, which is a Japan Steel Works, LTD (JSW) L1 Sub-Extruder, Model No. TEX 90S-31.5AW-3V. This unit extrudes polyethylene terephthalate for making film and is kept under vacuum.
- Emission unit P069, which is a Japan Steel Works, LTD (JSW) L2 Sub-Extruder, Model No. TEX 90S-31.5AW-3V. This unit extrudes polyethylene terephthalate for making film and is kept under vacuum.

There are no specific applicable requirements for T011, T012, T013, P068 and P069. This does not relieve the permittee from compliance with the provisions of the Facility Requirements in Section I.Y. or the General Conditions, outlined in Section II of this permit, as they apply to T011, T012, T013, P014, P068 and P069.

R. Requirements for Emission Units P054A, P056 and P057

The following requirements are applicable to:

- Emission unit P054A, which is the DMT Charge Hopper. DMT briquets are crushed and prepared for the DMT melting tank (P054).
- Emission unit P056, which is the AL-D Dispersion Vessel. The AL-D catalyst (fine powder) is charged to the dispersion vessel, where it is dissolved in ethylene glycol (EG).
- Emission unit P057, which is the YS-2 Mixing Vessel. The YS-2 catalyst (fine powder) is charged to the dispersion vessel, where it is dissolved in ethylene glycol (EG).

- Emission units P054A, P056 and P057 are associated with air pollution control device C017, which is a Metfab Engineering unpacked water scrubber.

1. Operating Requirements

- a. C017 shall be operated according to its design specifications whenever P054, P056 and/or P057 are in operation or are emitting air contaminants. [16.2]
- b. In case of malfunction of C017 all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C017 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P054, P056 and/or P057 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [16.3]
 - (1) Identification of the specific air pollution control system (ie C017) and the source on which it is installed (ie. P054, P056 and/or P057), [16.3(a)]
 - (2) The expected period of time that control system will be malfunctioning or out of service, [16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period [16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [16.3(e)]

2. Monitoring Requirements

- a. Pressure drop across control devices C017 shall be monitored continuously. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall check the pressure drop for control devices C017 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b)]

S. Requirements for Emissions Unit P076, P099 and P100

The following requirements are applicable to:

- Emission units P076, P099 and P100, each of which is a bar coating cleaner trough degreaser.

1. Operating Requirements

- a. Equipment covers and dipping or rotating baskets shall be constructed of nonporous or nonabsorbent material. Covers must form a tight seal with the sides of P076 P099 and P100 and have no gaps or holes. [36.4.1]
- b. When the covers for P076, P099 and P100 are open, drafts at the same elevation as the tanks lip must not be greater than 40 m/min. (130 ft/min.) when measured 1 to 2 meters (3 to 7 feet) upwind. [36.4.2]
- c. Leaks shall be repaired immediately or P076, P099 and P100 shall be shut down [36.4.3]
- d. Equipment used in P076, P099 and P100 shall display a conspicuous summary of proper operating procedures consistent with minimizing emissions of organic solvents. [36.4.4]
- e. Spills shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the specifications in Condition I.S.1.k. [36.4.6]
- f. No porous or absorbent materials, such as sponges, fabrics, wood, or paper products, shall be placed in P076, P099 and P100. [36.4.7]
- g. Parts baskets or parts shall be drained under the cover and shall not be removed from P076, P099 and P100 for at least 15 seconds or until dripping ceases and the pieces are visually dry, whichever is longer. [36.4.8]
- h. Parts with cavities or blind holes shall be tipped or rotated while draining before removed from the vapor zone and shall be oriented for best drainage. [36.4.9]
- i. All parts shall be oriented for best drainage. [36.4.10]
- j. When solvent is added to or drained from P076, P099 and P100 the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface. [36.4.11]
- k. Solvent, waste solvent, still bottoms, and sump bottoms shall be stored in covered containers and waste solvent transferal or disposal shall not allow greater than 20 percent of the waste solvent (by weight) to evaporate into the atmosphere. The closed containers may contain a device that allows for pressure relief, providing that the device does not allow liquid solvent to drain from the container. [36.4.12]

- l. P076, P099 and P100 shall be maintained as recommended by the manufacturer of the equipment. [36.4.13]
- m. Operators must receive training in proper solvent cleaning procedures and, if requested by representatives of the Office of Air Resources or the USEPA during an inspection, shall complete and pass the applicable sections of the test on those procedures as shown in Appendix A of APC Regulation No. 36. [36.4.14]
- n. No work area fans shall be located and positioned so that they blow across the opening of P076, P099 and P100. [36.4.15]
- o. P076, P099 and P100 shall be located and positioned so that ventilation from an open window does not blow across the opening of P076, P099 and P100. [36.4.16]
- p. The following requirements are not applicable if emission unit P076, P099 and P100 uses a solvent which contains no more than 5% VOC or volatile HAP by weight. [36.2.4]
 - (1) P076, P099 and P100 shall be equipped with an attached cover, below the lip exhaust, that can be operated easily with one hand. The covers shall be closed at all times except during parts entry and removal. [36.5.1]
 - (2) P076, P099 and P100 shall be equipped with a tight fitting cover that is kept closed at all times except during the cleaning of parts. [36.5.2]
 - (3) The permittee has demonstrated equivalent control to the 0.75 freeboard requirement contained in APC Regulation No. 36.5.3(a) through the use of a cleaning solvent which has a total VOC content <0.625% by wt. [36.5.3(c), Letter dated 13 December 2002 from Terrence Tuchon of the RIDEM Office of Air Resources to Drew Peters of Toray Plastics (America), Inc.]
 - (4) If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard zone of P076, P099 and P100. [36.5.4]
 - (5) The solvent height in P076, P099 and P100 shall not exceed the manufacturer's fill line. [36.5.6]
 - (6) P076, P099 and P100 shall not use any solvent with a vapor pressure equal to or greater than 1.0 millimeters of mercury (mm Hg), measured at 20°C (68°F). The following are exempt from this requirement: [36.5.7]

- (a) A cold cleaning unit with an internal volume of 1 liter or less; [36.5.7(a)]
- (b) A cold cleaning unit used for special and extreme solvent cleaning, as defined in APC Regulation 36 Subsection 36.1.27, with the Director's approval; [36.5.7(b)]
- (c) A cold cleaning unit which cannot be operated safely using a solvent that complies with the vapor pressure limit in APC Regulation 36 Subsection 36.1.27, with the Director's approval; [36.5.7(c)]
- (d) A cold cleaning unit operated in a permanent total enclosure equipped with an air pollution control system with an overall VOC removal efficiency of 90% or greater, with the Director's approval. [36.5.7(d)]

2. Recordkeeping Requirements

- a. The permittee shall maintain the following records:
 - (1) Training provided to operators of P076, P099 and P100 for the lifetime of the units, [36.10.4, 29.6.3(b)]
 - (2) The amount and type of solvent used in P076, P099 and P100 for each year, and [36.10.4(a), 29.6.3(b)]
 - (3) The date and type of each equipment malfunction or leak and the date the malfunction or leak is repaired. [36.10.4(b), 29.6.3(b)]

T. Requirements for Emissions Unit B045

The following requirements are applicable to:

- Emissions unit B045, which is a 240 HP Cummins Internal Combustion Engine, Model No. 6BTA5.9-F1, which burns diesel fuel oil. B013 is an emergency fire pump.

1. Emission Limitations

- a. Opacity

The permittee shall not emit into the atmosphere any air contaminant for a period or periods aggregating more than three minutes in any one hour which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Sulfur Oxides

Unless the Director declares in writing after a hearing that a shortage of low sulfur fuel exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight. [8.2]

2. Monitoring Requirements

- a. The permittee shall maintain a non-resettable elapsed time meter on B045 to indicate, in cumulative hours, the elapsed engine operating time. [29.6.3(b)]

3. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity emission limitations specified in Condition I.T.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

b. Sulfur oxides

Compliance with the sulfur limitations contained in Condition I.T.1.b of this permit shall be determined by the procedures referenced in Condition II.U.2 of this permit. [29.6.3(b)]

4. Recordkeeping Requirements

- a. The permittee shall on a monthly basis, no later than five (5) days after the first of each month, determine and record the hours of operation for B045 for the previous twelve (12) month period. [29.6.3(b)]

5. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources, in its semi-annual monitoring report, whenever the hours of operation in any twelve (12) month period exceeds 500 hours for B045. [29.6.4(b)(1)]

U. Requirements for Emissions Unit P101

The following requirements are applicable to:

- Emissions unit P101, which is the coating operation at the Research and Development pilot extrusion film line.

1. Emission Limitations

- a. The VOC content of each coating used by the permittee on P101, shall not exceed 2.9 lbs. VOC/gallon of coating, minus water. [19.3.1, 19.3.2.(b)]

2. Testing Requirements

a. VOC Content of Coatings Formulated On-Site

- (1) For each coating that is formulated on-site (by thinning or mixing with another material), the VOC content of the coating shall be determined by: [29.6.3(b)]
- (a) Maintaining batch formulation information documenting the VOC content of each coating; or, [29.6.3(b)]
- (b) Using USEPA Method 24 or an alternative procedure approved by USEPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A,” EPA-340/1-91-010. [19.7.1]
- (2) If the VOC content of a coating determined by an USEPA Method 24 test is greater than that indicated by the facility’s formulation data, the USEPA Method 24 test shall govern. [29.6.3(b)]

b. VOC Content of Coatings As-Supplied

- (1) For each coating that is not formulated on-site by thinning or mixing with another material (“as-supplied”), the VOC content of the coating shall be determined by documentation furnished by the coating supplier or an outside laboratory that provides the VOC content, water content, exempt compounds content, solids content and density of each coating used. [29.6.3(b)]
- (2) VOC, water, exempt compounds and solids content, by weight, of as-supplied coatings shall be determined with USEPA Method 24 or an alternative procedure approved by USEPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A”, EPA-340/1-91-010. [19.7.1, 29.6.3(b)]
- (3) If the permittee uses a coating that does not release VOC reaction by products during the cure; for example, if all VOC is solvent; the permittee may request permission to use batch formulation information to determination VOC content. If the VOC content of a coating

determined by an USEPA Method 24 test is greater than that indicated by the formulation data, the USEPA Method 24 test shall govern. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall collect and record the following information each month for P101: [19.5.3(c), 29.6.3(b)]
- (1) The name and identification number of each coating, as applied, on each coating line or operation, and [19.5.3(c)(1), 29.6.3(b)]
 - (2) The mass of VOC per volume of each coating (excluding water), as applied, used each month on each coating line or operation. [19.5.3(c)(2), 29.6.3(b)]
 - (3) The type and amount of solvent used for diluents and cleanup operations. [19.5.3(c)(3), 29.6.3(b)]

4. Reporting Requirements

- a. The permittee, before changing from complying coatings to daily-weighted averaging or control devices, shall submit a Compliance Certification Plan to the Office of Air Resources for review and approval. Such plan shall include:
- (1) The name and location of the facility; [19.5.2(a)(1), 19.5.4(a)(1)]
 - (2) The name, address and telephone number of the person responsible for the facility; [19.5.2(a)(2), 19.5.4(a)(2)]
 - (3) The name and identification number of the emission units which will comply by means of daily-weighted averaging or control devices; [19.5.2(a)(4), 19.5.4(a)(3)]
 - (4) For daily-weighted averaging:
 - (a) The instrument or method by which the permittee will accurately measure or calculate the volume of each coating (excluding water), as applied, used each day on each emission unit; [19.5.2(a)(5)]
 - (b) The method by which the permittee will create and maintain records each day as required by Subsection 19.5.2(c) of APC Regulation No. 19; [19.5.2(a)(6)]
 - (c) The time at which the facility's day begins if a time other than midnight local time is used to define a day. [19.5.2(a)(7)]

- (5) For control devices:
 - (a) The name and identification number of each coating, as applied, on each coating line or operation; [19.5.4(a)(4)]
 - (b) The mass of VOC per volume coating solids applied and the gallons of solids of each coating applied; [19.5.4(a)(5)]
 - (c) Identification of each control device which will be or has been installed and date of installation; [19.5.4(a)(6)]
 - (d) Identification of coating lines which will be controlled by each control device and documentation of expected capture and destruction efficiency or reduction efficiency; [19.5.4(a)(7)]
 - (e) Control device design information;
 - (i) For thermal incinerators – design combustion temperature (°F); [19.5.4(a)(8)(i)]
 - (ii) For catalytic incinerators – design exhaust gas temperature (°F), design temperature rise across catalyst bed (°F), anticipated frequency of catalyst change, and catalyst changes; [19.5.4(a)(8)(ii)]
 - (iii) For condensers – design inlet temperature of cooling medium (°F), design exhaust gas temperature (°F); [19.5.4(a)(8)(iii)]
 - (iv) For carbon adsorbers – design pressure drop across the adsorber, VOC concentration at breakthrough. [19.5.4(a)(8)(iv)]
- (6) Information describing the effect of the change on the emissions of any contaminant. [9.2.1]
- (7) A demonstration that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by APC Regulation No. 22. [22.3.3(a)] **[Not Federally Enforceable]**

V. Requirements for Emissions Unit P102, P103, and P104

The following requirements are applicable to:

- Emissions unit P102, which is the Meyer rod and gravure coating operation at the Lumirror L1 film line.

- Emissions unit P103, which is the Meyer rod and gravure coating operation at the Lumirror L2 film line.
- Emissions unit P104, which is the Meyer rod and gravure coating operation at the Lumirror L3 film line.

1. Emission Limitations

a. Volatile Organic Compounds (VOC)

- (1) The VOC content of all coatings used in polyester film coating operations on P102, P103, and P104 shall not exceed 2.9 lbs of VOC per gallon of coating (minus water and exempt compounds). [Approval Nos.1740-1742(A)(1)(a), 19.3.1]
- (2) The total quantity of volatile organic compound emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 shall not exceed: [Approval Nos.1740-1742(A)(1)(b)]
 - (a) 10,000 pounds in any one month; and, [Approval Nos.1740-1742(A)(1)(b)(1)]
 - (b) 30,000 pounds in any consecutive 12-month period. [Approval Nos.1740-1742(A)(1)(b)(2)]

b. Hazardous Air Pollutant (HAP)

- (1) The total quantity of HAP emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 shall not exceed 2,500 pounds of any combination of HAPs per calendar month based upon a 12-month rolling average. [Approval Nos.1740-1742(A)(2)]

c. Listed Toxic Air Contaminant

- (1) The total quantity of 1,4-Dioxane emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 shall not exceed: [Approval Nos.1740-1742(A)(3)(a)]
 - (a) 0.20 grams per hour; and, [Approval Nos.1740-1742(A)(3)(a)(1)]
 - (b) 3.9 pounds in any consecutive 12-month period [Approval Nos.1740-1742(A)(3)(a)(2)]
- (2) The total quantity of ethylene glycol emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 shall not exceed: [Approval Nos.1740-1742(A)(3)(b)]

- (a) 3.89 pounds per hour; and, [Approval Nos.1740-1742(A)(3)(b)(1)]
- (b) 18,000 pounds in any consecutive 12-month period [Approval Nos.1740-1742(A)(3)(b)(2)]
- (3) The total quantity of ammonia emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 shall not exceed: [Approval Nos.1740-1742(A)(3)(c)]
 - (a) 1.36 pounds per hour; and, [Approval Nos.1740-1742(A)(3)(c)(1)]
 - (b) 11,880 pounds in any consecutive 12-month period [Approval Nos.1740-1742(A)(3)(c)(2)]
- (4) The total quantity of ethylene glycol monobutyl ether emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 shall not exceed: [Approval Nos.1740-1742(A)(3)(d)]
 - (a) 4.01 pounds per hour; and, [Approval Nos.1740-1742(A)(3)(d)(1)]
 - (b) 30,000 pounds in any consecutive 12-month period [Approval Nos.1740-1742(A)(3)(d)(2)]
- (5) The following listed toxic air contaminants shall not be discharged to the atmosphere from polyester film coating operations on P102, P103, and P104: acetaldehyde, antimony trioxide, arsenic, 1,3- butadiene, cadmium, chromium, formaldehyde, hydrogen chloride, nickel, nitric acid and vanadium. [Approval Nos.1740-1742(A)(3)(e)]

2. Testing Requirements

a. VOC Content of Coatings Formulated On-Site

- (1) For each coating that is formulated on-site (by thinning or mixing with another material), the VOC content of the coating shall be determined by:[Approval Nos.1740-1742(B)(1)(a)]
 - (a) Maintaining batch formulation information documenting the VOC content of each coating; or,[Approval Nos.1740-1742(B)(1)(a)(1)]
 - (b) Using USEPA Method 24 or an alternative procedure approved by USEPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference

Method 24A,” EPA-340/1-91-010. [Approval Nos.1740-1742(B)(1)(a)(2), 19.7.1]

- (2) If the VOC content of a coating determined by an USEPA Method 24 test is greater than that indicated by the facility’s formulation data, the USEPA Method 24 test shall govern.[Approval Nos.1740-1742(B)(1)(b)]

b. VOC Content of Coatings As-Supplied

- (1) For each coating that is not formulated on-site by thinning or mixing with another material (“as-supplied”), the VOC content of the coating shall be determined by documentation furnished by the coating supplier or an outside laboratory that provides the VOC content, water content, exempt compounds content, solids content and density of each coating used.[Approval Nos.1740-1742(B)(2)(a)]
- (2) VOC, water, exempt compounds and solids content, by weight, of as-supplied coatings shall be determined with USEPA Method 24 or an alternative procedure approved by USEPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A”, EPA-340/1-91-010.[Approval Nos.1740-1742(B)(2)(b), 19.7.1, 29.6.3(b)]
- (3) If the permittee uses a coating that does not release VOC reaction by products during the cure; for example, if all VOC is solvent; the permittee may request permission to use batch formulation information to determination VOC content. If the VOC content of a coating determined by an USEPA Method 24 test is greater than that indicated by the formulation data, the USEPA Method 24 test shall govern. [Approval Nos.1740-1742(B)(2)(c)]

3. Recordkeeping Requirements

- a. The permittee shall collect and record all of the following information each month for P102, P103, and P104 : [Approval Nos.1740-1742(C)(1), 19.5.3(c), 29.6.3(b)]
 - (1) The name, identification number and amount of each coating, as applied, on each emission unit; and, [Approval Nos.1740-1742(C)(1)(a), 19.5.3(c)(1), 29.6.3(b)]
 - (2) The mass of VOC per volume of each coating (excluding water and exempt compounds), as applied, used each month on each emission unit; and, [Approval Nos.1740-1742(C)(1)(b), 19.5.3(c)(2), 29.6.3(b)]
 - (3) The mass of HAP per volume of each coating, as applied, used each month on each emission unit; and, [Approval Nos.1740-1742(C)(1)(c), 29.6.3(b)]

- (4) The mass of any listed toxic air contaminant per volume of each coating, as applied, used each month on each emission unit; and, [Approval Nos.1740-1742(C)(1)(d), 29.6.3(b)]
 - (5) The type and amount of solvent used for diluents and cleanup operations. [Approval Nos.1740-1742(C)(1)(e), 19.5.3(c)(3), 29.6.3(b)]
- b. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of VOC discharged to the atmosphere from polyester film coating operations on P102, P103, and P104. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos.1740-1742(C)(2), 29.6.3(b)]
 - c. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of HAP discharged to the atmosphere from polyester film coating operations on P102, P103, and P104. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos.1740-1742(C)(4), 29.6.3(b)]
 - d. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of each listed toxic air contaminant discharged to the atmosphere from polyester film coating operations on P102, P103, and P104. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos.1740-1742(C)(6)]

4. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources in writing within 15 days, whenever the total quantity of volatile organic compound emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 exceeds: [Approval Nos.1740-1742(C)(3), 29.6.3(b)]
 - (1) 10,000 pounds in any one month; or, [ApprovalNos.1740-1742(C)(3)(a)]
 - (2) 30,000 pounds in any consecutive 12-month period [Approval Nos.1740-1742(C)(3)(b)]
- b. The permittee shall notify the Office of Air Resources in writing, within 15 days, whenever the total quantity of HAP emissions discharged to the atmosphere from polyester film coating operations on P102, P103, and P104 exceeds 2,500 pounds of any combination of HAPs per calendar month based upon a 12 month rolling average. [Approval Nos. 1740-1742(C)(5), 29.6.3(b)]
- c. The permittee shall notify the Office of Air Resources in writing, within 15 days, whenever the total quantity of emissions discharged to the atmosphere from

polyester film coating operations on P102, P103, and P104 exceeds: [Approval Nos. 1740-1742(C)(7), 29.6.3(b)]

- (1) 0.20 grams per hour or 3.9 pounds in any consecutive 12-month period for 1,4 dioxane; or, [Approval Nos. 1740-1742(C)(7)(a)]
 - (2) 3.89 pounds per hour or 18,000 pounds in any consecutive 12-month period for ethylene glycol; [Approval Nos. 1740-1742(C)(7)(b)]
 - (3) 1.36 pounds per hour or 11,880 pounds in any consecutive 12-month period for ammonia; [Approval Nos. 1740-1742(C)(7)(c)]
 - (4) 4.01 pounds per hour or 30,000 pounds in any consecutive 12-month period for ethylene glycol monobutyl ether; and, [Approval Nos. 1740-1742(C)(7)(d)]
- d. The permittee shall notify the Office of Air Resources in writing, within 15 days, whenever the emissions of acetaldehyde, antimony trioxide, arsenic, 1,3 butadiene, cadmium, chromium, formaldehyde, hydrogen chloride, nickel nitric acid or vanadium are discharged to the atmosphere from polyester film coating operations on P102, P103, and P104. [Approval Nos. 1740-1742(C)(8), 29.6.3(b)]
- e. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 1740-1742(C)(11)]
- f. Deviations from permit conditions, including those attributable to upset conditions as defined Section I.V of this permit, shall be reported, in writing, within (5) business days of the deviation, to the Office of Air Resources. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. [Approval Nos. 1740-1742(C)(12)]
- g. The permittee, before changing from complying coatings to daily-weighted averaging or control devices, shall submit a Compliance Certification Plan to the Office of Air Resources for review and approval. Such plan shall include:
- (1) The name and location of the facility; [19.5.2(a)(1), 19.5.4(a)(1), Approval Nos. 1740-1742(C)(10)]
 - (2) The name, address and telephone number of the person responsible for the facility; [19.5.2(a)(2), 19.5.4(a)(2), Approval Nos. 1740-1742(C)(10)]
 - (3) The name and identification number of the emission units which will comply by means of daily-weighted averaging or control devices; [19.5.2(a)(4), 19.5.4(a)(3), Approval Nos. 1740-1742(C)(10)]
 - (4) For daily-weighted averaging:

- (a) The instrument or method by which the permittee will accurately measure or calculate the volume of each coating (excluding water), as applied, used each day on each emission unit; [19.5.2(a)(5) Approval Nos. 1740-1742(C)(10)]
 - (b) The method by which the permittee will create and maintain records each day as required by Subsection 19.5.2(c) of APC Regulation No. 19; [19.5.2(a)(6), Approval Nos. 1740-1742(C)(10)]
 - (c) The time at which the facility's day begins if a time other than midnight local time is used to define a day. [19.5.2(a)(7) Approval Nos. 1740-1742(C)(10)]
- (5) For control devices:
- (a) The name and identification number of each coating, as applied, on each coating line or operation; [19.5.4(a)(4), Approval Nos. 1740-1742(C)(10)]
 - (b) The mass of VOC per volume coating solids applied and the gallons of solids of each coating applied; [19.5.4(a)(5)], Approval Nos. 1740-1742(C)(10)]
 - (c) Identification of each control device which will be or has been installed and date of installation; [19.5.4(a)(6), Approval Nos. 1740-1742(C)(10)]
 - (d) Identification of coating lines which will be controlled by each control device and documentation of expected capture and destruction efficiency or reduction efficiency; [19.5.4(a)(7), Approval Nos. 1740-1742(C)(10)]
 - (e) Control device design information;
 - (i) For thermal incinerators – design combustion temperature (°F); [19.5.4(a)(8)(i), Approval Nos. 1740-1742(C)(10)]
 - (ii) For catalytic incinerators – design exhaust gas temperature (°F), design temperature rise across catalyst bed (°F), anticipated frequency of catalyst change, and catalyst changes; [19.5.4(a)(8)(ii), Approval Nos. 1740-1742(C)(10)]
 - (iii) For condensers – design inlet temperature of cooling medium (°F), design exhaust gas temperature (°F); [19.5.4(a)(8)(iii), Approval Nos. 1740-1742(C)(10)]

- (iv) For carbon adsorbers – design pressure drop across the adsorber, VOC concentration at breakthrough. [19.5.4(a)(8)(iv), Approval Nos. 1740-1742(C)(10)]
- (6) Information describing the effect of the change on the emissions of any contaminant. [9.2.1]
- (7) A demonstration that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by APC Regulation No. 22. [22.3.3(a)] [Not Federally Enforceable]

5. Other Requirements

- a. To the extent consistent with the requirements of Section I.V of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval Nos. 1740-1742(D)(2)]
- b. The emission and dispersion characteristics of all sources of any listed toxic air contaminant at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions do not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may reopen the minor source permit for emission units P102, P103 and P104 if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to the permit to ensure compliance with Air Pollution Control Regulation No. 22. [Approval Nos. 1740-1742(D)(4), 22.5.3]

6. Trial Surface Coating Operations

- a. The permittee may conduct trial surface coating operations subject to the following conditions. [Approval Nos. 1740-1742(E)(1)]
 - (1) Trial surface coating operations do not include the production for sale of established product recipes. A recipe is considered established once it is run three times or more in a rolling 12-month period. [Approval Nos. 1740-1742(E)(1)(a)]
 - (2) The permittee shall comply with the provisions of Air Pollution Control Regulation No. 9 by: [Approval Nos. 1740-1742(E)(1)(b), 9.3.1]
 - (a) Limiting the total quantity of emissions discharged to the atmosphere, from the trial surface coating operations, to no more than 10 pounds per hour or 100 pounds per day of VOC, whichever is more stringent; [Approval Nos. 1740-1742(E)(1)(b)(1), 9.3.1(g)(1)]

- (b) Limiting the total quantity of emissions discharged to the atmosphere, from trial surface coating operations, so that facility emissions do not exceed the minimum quantity for a listed toxic air contaminant, as specified in Appendix A of Air Pollution Control Regulation No. 9; and, [Approval Nos. 1740-1742(E)(1)(b)(2), 9.3.1(f)]
 - (c) Prohibiting the use, in trial surface coating operations, of any toxic air contaminant that has actual facility emissions which exceed the minimum quantity, as specified in Appendix A of Air Pollution Control Regulation No. 9, unless allowed under a separate permit. [Approval Nos. 1740-1742(E)(1)(b)(3), 9.3.1, 9.3.1(f)]
- (3) The permittee shall comply with the provisions of Air Pollution Control Regulation No. 19 by limiting emissions from trial surface coating operations to no more than 2.9 pounds of VOC per gallon of coating, minus water. [Approval Nos. 1740-1742(E)(1)(c), 19.3.1]
- (4) The permittee shall maintain the following records to determine compliance with Air Pollution Control Regulation No. 9 for trial surface coating operation: [Approval Nos. 1740-1742(E)(1)(d)]
- (a) The date, start time and end time for each coating trial and the quantity of coating used for each coating trial; [Approval Nos. 1740-1742(E)(1)(d)(1)]
 - (b) The name, identification number and amount used each hour and each day of each coating, as applied; [Approval Nos. 1740-1742(E)(1)(d)(2)]
 - (c) For each coating used, the VOC content in pounds of VOC per gallon of coating, as applied, and the quantity of any listed toxic air contaminant in pounds per gallon of coating as applied; [Approval Nos. 1740-1742(E)(1)(d)(3)]
 - (d) Records of any and all calculations documenting the as applied VOC content in pounds per gallon of coating and the listed toxic air contaminant content in pounds per gallon of coating; and, [Approval Nos. 1740-1742(E)(1)(d)(4)]
 - (e) The type and amount of any solvent used for diluents and cleanup operations. [Approval Nos. 1740-1742(E)(1)(d)(5)]
- (5) The permittee shall notify the Office of Air Resources in writing, within 5 days, whenever: [Approval Nos. 1740-1742(E)(1)(e)]
- (a) The total quantity of emissions discharged to the atmosphere, from trial surface coating operations exceeds 10 pounds per hour or 100 pounds per day of VOC, whichever is more stringent, unless

otherwise allowed by permit approval; or, [Approval Nos. 1740-1742(E)(1)(e)(1)]

(b) The aggregate quantity of emissions discharged to the atmosphere, from the trial operations and facility operations, exceeds the minimum quantity for any listed toxic air contaminant, as specified in Appendix A of Air Pollution Control Regulation No. 9. [Approval Nos. 1740-1742(E)(1)(e)(2)]

(6) The permittee shall notify the Office of Air Resources in writing, within 5 days, whenever the VOC emissions from trial surface coating operations exceed 2.9 pounds of VOC per gallon of coating, minus water. [Approval Nos. 1740-1742(E)(1)(f), 19.5.3(d)(1)]

W. Requirements for Emissions Units P105 and P106

The following requirements are applicable to:

- Emissions unit P105, which is the gravure coating operation at the Torayfan A4 film line.
- Emissions unit P106, which is the gravure coating operation at the Torayfan A5 film line.

1. Emission Limitations

a. Volatile Organic Compounds

The VOC content of all coatings used in polypropylene film coating operations on P105 and P106 shall not exceed 2.9 pounds of VOC per gallon of coating (minus water and exempt compounds). [Approval Nos. 1908-1909(A)(1)(a), 19.3.1]

b. Listed Toxic Air Contaminant

(1) The total quantity of formaldehyde emissions discharged to the atmosphere from coating operations on the A4 and A5 lines shall not exceed: [Approval Nos. 1908-1909(A)(2)(a)]

(a) 0.0015 pounds per hour; and, [Approval Nos. 1908-1909(A)(2)(a)(1)]

(b) 0.036 pounds per day; and, [Approval Nos. 1908-1909(A)(2)(a)(2)]

(c) 13.14 pounds in any consecutive 12-month period. [Approval Nos. 1908-1909(A)(2)(a)(3)]

(2) The total quantity of ethylene glycol emissions discharged to the atmosphere from coating operations on the A4 and A5 lines shall not exceed: [Approval Nos. 1908-1909(A)(2)(b)]

- (a) 0.0015 pounds per hour; and, [Approval Nos. 1908-1909(A)(2)(b)(1)]
 - (b) 13.14 pounds in any consecutive 12-month period. [Approval Nos. 1908-1909(A)(2)(b)(2)]
- (3) The total quantity of methanol emissions discharged to the atmosphere from coating operations on the A4 and A5 lines shall not exceed: [Approval Nos. 1908-1909(A)(2)(c)]
- (a) 0.2934 pounds per hour; and, [Approval Nos. 1908-1909(A)(2)(c)(1)]
 - (b) 2570 pounds in any consecutive 12-month period. [Approval Nos. 1908-1909(A)(2)(c)(2)]

These limitations were established to ensure that emissions from this facility do not exceed any of the acceptable ambient levels (AALs) listed in Air Pollution Control Regulation No. 22.

2. Operating Requirements

- a. P105 and P106 shall perform single-sided coating operations only. [Approval Nos. 1908-1909(B)(1)]

3. Testing Requirements

- a. VOC Content of Coatings Formulated On-Site
 - (1) For a coating that is formulated on-site (by thinning or mixing with another material), the VOC content of the coating shall be determined by: [Approval Nos. 1908-1909(C)(1)(a)]
 - (a) Maintaining batch formulation information documenting the VOC content of the coating; or, [Approval Nos. 1908-1909(C)(1)(a)(1)]
 - (b) Using USEPA Method 24 or an alternative procedure approved by USEPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A,” EPA-340/1-91-010. [Approval Nos. 1908-1909(C)(1)(a)(2), 19.7.1]
 - (2) If the VOC content of a coating determined by an USEPA Method 24 test is greater than that indicated by the facility’s formulation data, the USEPA Method 24 test shall govern. [Approval Nos. 1908-1909(C)(1)(b)]

- b. VOC Content of Coating As-Supplied
- (1) For a coating that is not formulated on-site by thinning or mixing with another material (“as-supplied”), the VOC content of the coating shall be determined by documentation furnished by the coating supplier or an outside laboratory that provides the VOC content, water content, exempt compounds content, solids content and density of the coating. [Approval Nos. 1908-1909(C)(2)(a)]
 - (2) VOC, water, exempt compounds and solids content, by weight, of as-supplied coatings shall be determined with USEPA Method 24 or an alternative procedure approved by USEPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A”, EPA-340/1-91-010. [Approval Nos. 1908-1909(C)(2)(b), 19.7.1]
 - (3) If the permittee uses a coating that does not release VOC reaction by products during the cure; for example, if all VOC is solvent; the permittee may request permission to use batch formulation information to determine VOC content. If the VOC content of a coating determined by an USEPA Method 24 test is greater than that indicated by the formulation data, the USEPA Method 24 test shall govern. [Approval Nos. 1908-1909(C)(2)(c)]

4. Recordkeeping Requirements

- a. The permittee shall collect and record all of the following information each month for P105 and P106: [Approval Nos. 1908-1909(D)(1), 19.5.3(c), 29.6.3(b)]
- (1) The name, identification number and amount of the coating used, as applied, on each film line; and, [Approval Nos. 1908-1909(D)(1)(a), 19.5.3(c)(1), 29.6.3(b)]
 - (2) The mass of VOC per volume of the coating (excluding water and exempt compounds), as applied, used each month on each film line; and, [Approval Nos. 1908-1909(D)(1)(b), 19.5.3(c)(2), 29.6.3(b)]
 - (3) The mass of any listed toxic air contaminant per volume of the coating, as applied, used each month on each film line. [Approval Nos. 1908-1909(D)(1)(c), 29.6.3(b)]
 - (4) The type and amount of solvent used for diluents and cleanup operations. [Approval Nos. 1908-1909(D)(1)(d), 19.5.3(c)(3), 29.6.3(b)]
- b. The permittee shall, on a daily basis, determine the total quantity of formaldehyde, ethylene glycol and methanol discharged to the atmosphere from P105 and P106. The permittee shall keep records of this determination and

provide such records to the Office of Air Resources upon request. [Approval Nos. 1908-1909(D)(2), 29.6.3(b)]

- c. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of formaldehyde, ethylene glycol and methanol discharged to the atmosphere from P015 and P016. Monthly and 12-month rolling average shall be calculated. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos. 1908-1909(D)(4)]

5. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources within 24 hours, whenever the total quantity of formaldehyde, ethylene glycol and methanol discharged to the atmosphere from the coating operations on P105 and P106 exceeds the hourly or daily emission limitations in Condition I.W.1.b of this permit. [Approval Nos. 1908-1909(D)(3), 29.6.3(b)]
- b. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.W of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 1908-1909(D)(10)]
- c. Deviations from permit conditions, including those attributable to upset conditions as defined in Section I.W of this permit, shall be reported, in writing, within (5) business days of the deviation, to the Office of Air Resources. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. [Approval Nos. 1908-1909(D)(11), 19.5.3(d)(1)].
- d. The permittee, before changing from complying coatings to daily-weighted averaging or control devices, shall submit a Compliance Certification Plan to the Office of Air Resources for review and approval. Such plan shall include:
 - (1) The name and location of the facility; [19.5.2(a)(1), 19.5.4(a)(1), Approval Nos. 1908-1909(D)(8)]
 - (2) The name, address and telephone number of the person responsible for the facility; [19.5.2(a)(2), 19.5.4(a)(2), Approval Nos. 1908-1909(D)(8)]
 - (3) The name and identification number of the emission units which will comply by means of daily-weighted averaging or control devices; [19.5.2(a)(4), 19.5.4(a)(3), Approval Nos. 1908-1909(D)(8)]

- (4) For daily-weighted averaging:
- (a) The instrument or method by which the permittee will accurately measure or calculate the volume of each coating (excluding water), as applied, used each day on each emission unit; [19.5.2(a)(5) Approval Nos. 1908-1909(D)(8)]
 - (b) The method by which the permittee will create and maintain records each day as required by Subsection 19.5.2(c) of APC Regulation No. 19; [19.5.2(a)(6), Approval Nos. 1908-1909(D)(8)]
 - (c) The time at which the facility's day begins if a time other than midnight local time is used to define a day. [19.5.2(a)(7) Approval Nos. 1908-1909(D)(8)]
- (5) For control devices:
- (a) The name and identification number of each coating, as applied, on each coating line or operation; [19.5.4(a)(4), Approval Nos. 1908-1909(D)(8)]
 - (b) The mass of VOC per volume coating solids applied and the gallons of solids of each coating applied; [19.5.4(a)(5)], Approval Nos. 1908-1909(D)(8)]
 - (c) Identification of each control device which will be or has been installed and date of installation; [19.5.4(a)(6), Approval Nos. 1908-1909(D)(8)]
 - (d) Identification of coating lines which will be controlled by each control device and documentation of expected capture and destruction efficiency or reduction efficiency; [19.5.4(a)(7), Approval Nos. 1908-1909(D)(8)]
 - (e) Control device design information;
 - (i) For thermal incinerators – design combustion temperature (°F); [19.5.4(a)(8)(I), Approval Nos. 1908-1909(D)(8)]
 - (ii) For catalytic incinerators – design exhaust gas temperature (°F), design temperature rise across catalyst bed (°F), anticipated frequency of catalyst change, and catalyst changes; [19.5.4(a)(8)(ii), Approval Nos. 1908-1909(D)(8)]

- (iii) For condensers – design inlet temperature of cooling medium (°F), design exhaust gas temperature (°F); [19.5.4(a)(8)(iii), Approval Nos. 1908-1909(D)(6)]
 - (iv) For carbon adsorbers – design pressure drop across the adsorber, VOC concentration at breakthrough. [19.5.4(a)(8)(iv), Approval Nos. 1908-1909(D)(8)]
 - (6) Information describing the effect of the change on the emissions of any contaminant. [9.2.1]
 - (7) A demonstration that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by APC Regulation No. 22. [22.3.3(a)] [Not Federally Enforceable]
- e. The permittee shall notify the Office of Air Resources in writing, within 15 days after the first of the month, whenever the total quantity of formaldehyde, ethylene glycol or methanol discharged to the atmosphere from coating operations on the P015 and P016, exceeds the 12-month emission limitations in I.W.1.b of this permit. [Approval Nos. 1908-1909(D)(5)]
- f. The permittee shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of Section I.W of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information: [Approval Nos. 1908-1909(D)(13)]
 - (1) The name and location of the facility;
 - (2) The subject source(s) that caused the noncompliance with the permit term;
 - (3) The time and date of first observation of the incident of noncompliance;
 - (4) The cause and expected duration of the incident of noncompliance;
 - (5) The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate;
 - (6) The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

6. Other Requirements

- a. To the extent consistent with the requirements of Section I.W of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval Nos. 1908-1909(E)(1)]

- b. The emission and dispersion characteristics of all sources of any listed toxic air contaminant at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions do not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may reopen the minor source permit for emission units P105 and P106 if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to the minor source permit to ensure compliance with Air Pollution Control Regulation No. 22. [Approval Nos. 1908-1909(E)(4), 22.5.3]

7. Trial Surface Coating Operations

- a. The permittee may conduct trial surface coating operations subject to the following conditions. Trial surface coating operations do not include the production for sale of established products through established processes. [Approval Nos. 1908 – 1909(F)(1)]
 - (1) The permittee shall comply with the provisions of Air Pollution Control Regulation No. 9 by limiting the total quantity of emissions discharged to the atmosphere, from the trial surface coating operations to no more than: [Approval Nos. 1908 – 1909(F)(1)(a)]
 - (a) 10 pounds per hour or 100 pounds per day of VOC, whichever is more stringent; and, [Approval Nos. 1908 – 1909(F)(1)(a)(1)]
 - (b) the minimum quantity for any listed toxic air contaminant, as specified in Appendix A of Air Pollution Control Regulation No. 9. [Approval Nos. 1908 – 1909(F)(1)(a)(2)]
 - (2) The permittee shall comply with the provisions of Air Pollution Control Regulation No. 19 by limiting emissions from the trial surface coating operations to no more than: [Approval Nos. 1908 – 1909(F)(1)(b)]
 - (a) 4.79 pounds of VOC per gallon of solids if add-on VOC control equipment is used on the surface coating line, or; [Approval Nos. 1908 – 1909(F)(1)(b)(1)]
 - (b) 2.9 pounds of VOC per gallon of coating, minus water, if add-on VOC control equipment is not used on the surface coating line. [Approval Nos. 1908 – 1909(F)(1)(b)(2)]
 - (3) The permittee shall maintain the following records to determine compliance with Air Pollution Control Regulation No. 9 for the trial surface coating operations. These records shall be maintained for a period of five (5) years and shall be available for inspection by the Office of Air Resources and the Environmental Protection Agency upon request for the purpose of determining compliance with this condition. These records shall include the following: [Approval Nos. 1908 – 1909(F)(1)(c)]

- (a) The date, start time and end time for each coating trial and the quantity of coating used for each coating trial; [Approval Nos. 1908 – 1909(F)(1)(c)(1)]
 - (b) The name, identification number and amount used each hour and each day of each coating, as applied. [Approval Nos. 1908 – 1909(F)(1)(c)(2)]
 - (c) For each coating used, the VOC content in, pounds of VOC per gallon of coating and pounds of VOC per gallon of coating solids, as applied, and the quantity of any listed toxic air contaminant in pounds per gallon of coating as applied; [Approval Nos. 1908 – 1909(F)(1)(c)(3)]
 - (d) The type and amount of any solvent used for diluents and cleanup operations. [Approval Nos. 1908 – 1909(F)(1)(c)(4)]
 - (e) Records of any and all calculations documenting the as applied VOC content in pounds per gallon of coating and pounds per gallon of coating solids and the listed toxic air contaminant content in pounds per gallon of coating. [Approval Nos. 1908 – 1909(F)(1)(c)(5)]
- (4) The permittee shall notify the Office of Air Resources in writing, within 5 days, whenever the total quantity of emissions discharged to the atmosphere, from the trial operations exceeds: [Approval Nos. 1908 – 1909(F)(1)(d)]
- (a) 10 pounds per hour or 100 pounds per day of VOC, whichever is more stringent; or, [Approval Nos. 1908 – 1909(F)(1)(d)(1)]
 - (b) the minimum quantity for any listed toxic air contaminant, as specified in Appendix A of Air Pollution Control Regulation No. 9. [Approval Nos. 1908 – 1909(F)(1)(d)(2)]
- (5) The permittee shall notify the Office of Air Resources in writing, within 5 days, whenever the VOC emissions from the trial operations exceeds: [Approval Nos. 1908 – 1909(F)(1)(e)]
- (a) 4.79 pounds of VOC per gallon of solids if add-on VOC control equipment is used on the surface coating line, or; [Approval Nos. 1908 – 1909(F)(1)(e)(1)]
 - (b) 2.9 pounds of VOC per gallon of coating, minus water, if add-on VOC control equipment is not used on the surface coating line. [Approval Nos. 1908 – 1909(F)(1)(e)(2)]

X. Requirements for Emissions Unit P107

The following requirements are applicable to:

- Emissions unit P107, which is a 97 MMBTU/hr Solar Taurus 70 turbine-generator, Inc. combustion turbine, Model No.MF-3-78, which burns natural gas and low sulfur fuel oil. P107 is equipped with a SoLoNO_x lean-premixed combustion system for NO_x.

1. Emission Limitations

a. Turbines firing natural gas with duct burners not fired

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

(a) The concentration of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 25.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(1)(a)(1), 40 CFR 60.332(a)(2), 40 CFR 60.332(c)]

(b) The emission rate of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 8.2 lbs/hr. [Approval No. 1671(A)(1)(a)(2)]

(2) Carbon Monoxide (CO)

(a) The concentration of carbon monoxide discharged to the atmosphere from P107 shall not exceed 50.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(1)(b)(1)]

(b) The emission rate of carbon monoxide discharged to the atmosphere from P107 shall not exceed 9.9 lbs/hr. [Approval No. 1671(A)(1)(b)(2)]

(3) Total Nonmethane Hydrocarbons (NMHC)

(a) The concentration of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 25.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(1)(c)(1)]

(b) The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 2.9 lbs/hr. [Approval No. 1671(A)(1)(c)(2)]

(4) Sulfur Dioxide

- (a) The permittee shall not burn any natural gas which contains sulfur in excess of 0.8 percent by weight. [40 CFR 60.333(b)]

b. Turbines firing natural gas with duct burners fired

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

- (a) The concentration of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 30.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(2)(a)(1), 40 CFR 60.332(a)(2), 40 CFR 60.332(c)]
- (b) The emission rate of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 12.0 lbs/hr. [Approval No. 1671(A)(2)(a)(2)]

(2) Carbon Monoxide (CO)

- (a) The concentration of carbon monoxide discharged to the atmosphere from P107 set shall not exceed 55.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(2)(b)(1)]
- (b) The emission rate of carbon monoxide discharged to the atmosphere from P107 shall not exceed 12.4 lbs/hr. [Approval No. 1671(A)(2)(b)(2)]

(3) Total Nonmethane Hydrocarbons (NMHC)

- (a) The concentration of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 25.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(2)(c)(1)]
- (b) The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 3.5 lbs/hr. [Approval No. 1671(A)(2)(c)(2)]

(4) Sulfur Dioxide

- (a) The permittee shall not burn any natural gas which contains sulfur in excess of 0.8 percent by weight. [40 CFR 60.333(b)]

c. Turbines firing fuel oil with duct burners not fired

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

(a) The concentration of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 96.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(3)(a)(1) 40 CFR 60.332(a)(2), 40 CFR 60.332(c)]

(b) The emission rate of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 31.4 lbs/hr. [Approval No. 1671(A)(3)(a)(2)]

(2) Carbon Monoxide (CO)

(a) The concentration of carbon monoxide discharged to the atmosphere from P107 shall not exceed 50.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(3)(b)(1)]

(b) The emission rate of carbon monoxide discharged to the atmosphere from P107 shall not exceed 10.0 lbs/hr. [Approval No. 1671(A)(3)(b)(2)]

(3) Total Nonmethane Hydrocarbons (NMHC)

(a) The concentration of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 25.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(3)(c)(1)]

(b) The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 2.9 lbs/hr. [Approval No. 1671(A)(3)(c)(2)]

(4) Sulfur Dioxide (SO₂)

(a) All fuel oil burned in P107 shall contain no more than 0.05 percent sulfur by weight. [Approval No. 1671(A)(3)(d)(1), 40 CFR 60.333(b), 8.2]

(b) The emission rate of sulfur dioxide discharged to the atmosphere from P107 shall not exceed 2.4 lbs/hr. [Approval No. 1671(A)(3)(d)(2)]

(5) Particulate Matter

- (a) The emission rate of particulate matter discharged to the atmosphere from P107 shall not exceed 0.012 lbs per million BTU heat input or 0.9 lbs/hr whichever is more stringent. [Approval No. 1671(A)(3)(e)]

d. Turbines firing fuel oil with duct burners fired

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

- (a) The concentration of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 90.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(4)(a)(1) 40 CFR 60.332(a)(2), 40 CFR 60.332(c)]
- (b) The emission rate of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 35.3 lbs/hr. [Approval No. 1671(A)(4)(a)(2)]

(2) Carbon Monoxide (CO)

- (a) The concentration of carbon monoxide discharged to the atmosphere from P107 shall not exceed 55.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(4)(b)(1)]
- (b) The emission rate of carbon monoxide discharged to the atmosphere from P107 shall not exceed 12.4 lbs/hr. [Approval No. 1671(A)(4)(b)(2)]

(3) Total Nonmethane Hydrocarbons (NMHC)

- (a) The concentration of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 25.0 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average). [Approval No. 1671(A)(4)(c)(1)]
- (b) The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from P107 shall not exceed 3.4 lbs/hr. [Approval No. 1671(A)(4)(c)(2)]

(4) Sulfur Dioxide (SO₂)

- (a) All fuel oil burned in P107 shall contain no more than 0.05 percent sulfur by weight. [Approval No. 1671(A)(4)(d)(1), 40 CFR 60.333(b), 8.2]

- (b) The emission rate of sulfur dioxide discharged to the atmosphere from P107 shall not exceed 4.1 lbs/hr. [Approval No. 1671(A)(4)(d)(2)]
- (5) Particulate Matter
 - (a) The emission rate of particulate matter discharged to the atmosphere from P107 shall not exceed 0.012 lbs per million BTU heat input or 1.4 lbs/hr whichever is more stringent. [Approval No. 1671(A)(4)(e)]
- e. The total quantity of nitrogen oxides discharged to the atmosphere from P107 shall not exceed 98,000 lbs. in any consecutive 12-month period. [Approval No. 1671(A)(5)(a)(1)]
- f. Visible emissions from P107 shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one hour. [Approval No. 1671(B)(4), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

- a. The maximum heat input rate to the combustion turbine shall not exceed 97 million BTUs per hour. [Approval No. 1671(B)(1)]
- b. The maximum heat input rate to the duct burners in the heat recovery steam generator shall not exceed 41 million BTUs per hour. [Approval No. 1671(B)(2)]
- c. The permittee shall limit the total combined quantity of fuel oil combusted in the combustion turbine to 46,200 gallons for any consecutive 12-month period, excluding fuel oil used for permit required initial and annual stack testing. [Approval No. 1671(B)(3)]
- d. Natural gas shall be the only fuel fired in the duct burners. [Approval No. 1671(B)(5)]

3. Testing Requirements

- a. Nitrogen Oxides
 - (1) Emissions testing shall be conducted annually to determine compliance with the nitrogen oxides emission limitation for natural gas and fuel oil firing. [Approval No. 1671(D)(1), 29.6.3(b), 27.5.7(a)]
 - (2) A stack testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any stack tests. The permittee shall provide the Division at least 60 days prior notice of any performance test. [Approval No. 1671(D)(2), 27.5.7(b)]

- (3) All test procedures used for stack testing shall be approved by the Office of Air Resources prior to the performance of any stack test. [Approval No. 1671(D)(3), 27.5.7(c)]
- (4) The permittee shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment. [Approval No. 1671(D)(4), 27.5.7(d)]
- (5) All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitations. [Approval No. 1671(D)(5), 27.5.7(e)]
- (6) All stack testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable. [Approval No. 1671(D)(6), 27.5.7(f)]
- (7) A final report of the results of the stack testing shall be submitted to the Office of Air Resources no later than 45 days following completion of the testing. [Approval No. 1671(D)(7), 27.5.7(g)]

b. Sulfur Dioxide

- (1) Compliance with fuel oil sulfur limits may be determined based on a certification from the fuel supplier. [Approval No. 1671(E)(1), 40 CFR 60.335(b)(10)(i), 40 CFR 60.335(b)(11)]
- (2) Fuel supplier certification shall include the following information: [Approval No. 1671(E)(2)]
 - (a) The name of the oil supplier; [Approval No. 1671(E)(2)(a)]
 - (b) The sulfur content of the oil; [Approval No. 1671(E)(2)(b)]
 - (c) The location of the oil when the sample was drawn for analysis to determine the sulfur and nitrogen content of the oil; specifically including whether the oil was sampled as delivered to Toray Plastics (America), Inc. or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility or another location; [Approval No. 1671(E)(2)(c)]
 - (d) The method used to determine the sulfur content of the oil. [Approval No. 1671(E)(2)(d), 40 CFR 60.335(b)(10)(i)]
 - (e) A statement that the sampling was performed according to either the single tank composite sampling procedure or the all-levels sampling procedure in ASTM D4057-88, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products" and that

no additions have been made to the supplier's tank since sampling.
[29.6.3(b), 40 CFR 60.334(h)(1), 40 CFR 60.334(i)(1)]

- (3) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the oil in the initial tank of oil to be fired in P107 and after each new shipment of oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. [Approval No. 1671(E)(3), 40 CFR 60.334(h)(4)(i)(1)]
- (4) Each fuel supplier certification or each fuel oil analysis must demonstrate that the oil contains 0.05 percent sulfur by weight or less. [Approval No. 1671(E)(4)]
- (5) The fuel analyses required under this section may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor or any other qualified agency. [40 CFR 60.335(b)(11)]

c. Opacity

Test for determining compliance with the opacity emissions limitations specified in Condition I.X.1.e of this permit shall be performed as per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

4. Monitoring Requirements

- a. Continuous emission monitoring equipment shall be operated and maintained for opacity when P107 is operating on fuel oil. [Approval No. 1671(C)(1)]
- b. Natural gas flow and fuel oil flow to the combustion turbine and natural gas flow to the duct burner shall be continuously measured. [Approval No. 1671(C)(2)]
- c. The turbine shall be equipped with an elapsed time meter to indicate in cumulative hours, the amount of time the turbine has operated. [Approval No. 1671(C)(3)]

5. Recordkeeping Requirements

- a. The permittee shall maintain the following records: [Approval No. 1671(F)(1)]
 - (1) The hours of operation, including any start up, shut down or malfunction in the operations of the facility. [Approval No. 1671(F)(1)(a), 40 CFR 60.7(b)]
 - (2) The quantity of natural gas and fuel oil combusted in the turbine and the duct burners. [Approval No. 1671(F)(1)(b)]
- b. The permittee shall, on a monthly basis, no later than 10 days after the first of the month, determine the fuel oil usage for the previous 12 month period for the combustion turbine. [Approval No. 1671(F)(2)]

- c. The permittee shall, on a monthly basis, no later than 10 days after the first of each month, determine the total quantity of nitrogen oxides discharged to the atmosphere from P107 for the previous 12 months. [Approval No. 1671(F)(4)]
- d. The permittee shall maintain the records to demonstrate that the gaseous fuel combusted in P107 meets the definition of natural gas in 40 CFR 60.331(u). The following source of information shall be used to make the required demonstration:
 - (1) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less. [40 CFR 60.334(h)(3)(i), 29.6.3(b)]
- e. The permittee shall maintain records of any scheduled and unscheduled maintenance to emission unit P107. [29.6.3(b)]
- f. Natural gas flow and fuel oil flow to the combustion turbine and natural gas flow to the duct burner shall be continuously recorded. [Approval No. 1671(C)(2)]
- g. The permittee shall retain copies of all fuel supplier certifications or fuel oil analyses for each calendar quarter. These records shall be made accessible for review by the Office of Air Resources or US EPA. This quarterly record shall include a certified statement, signed by the permittee, that the records of fuel supplier certifications submitted represent all of the fuel combusted during the quarter. [Approval No. 1671(F)(9)]
- h. The permittee shall maintain a file of all measurements, including performance testing measurements and all other information required shall be recorded in a permanent form suitable for inspection. [40 CFR 60.7(f)]

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources, in writing, within 15 days, whenever the fuel oil usage exceeds 46,200 gallons for any consecutive 12-month period excluding fuel oil used for permit required initial and annual stack testing. [Approval No. 1671(F)(3)]
- b. The permittee shall notify the Office of Air Resources in writing within 15 days, whenever total quantity of nitrogen oxides discharged to the atmosphere from P107 exceeds 98,000 lbs. in any consecutive 12-month period. [Approval No. 1671(F)(5)]
- c. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with Section I.X of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1671(F)(10)]
- d. The permittee shall submit reports of excess emissions and monitor downtime, on a semiannual basis, in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and

malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

- (1) For oil samples obtained using sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. [40 CFR 60.334(j)(2)(i)]
- (2) For oil samples obtained using sampling of each delivery of fuel oil, the permittee shall immediately switch to sampling from the unit's storage tank if the sulfur content of a delivery exceeds 0.8 weight percent. The permittee shall continue to use sampling from the unit's storage tank until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to Condition I.X.6.d(1) of this permit. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option. [40 CFR 60.334(j)(2)(ii)]
- (3) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. [40 CFR 60.334(j)(2)(iii)]

7. Other Requirements

- a. To the extent consistent with the requirements of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application dated March 2, 2001. [Approval No. 1671(G)(1)]
- b. The facility is subject to the requirements of the Federal New Source Performance Standards 40 CFR 60, Subpart A (General Provisions) and Subpart GG (Stationary Gas Turbines). Compliance with all applicable provisions of these regulations is required. [Approval No. 1671(G)(3)]

Y. Requirements for Emission Units P001, P002, P003, P004 and P005

The following requirements are applicable to:

- Emission units P001 – P005, each of which is an Esterification Vessel (P1-P5 lines respectively).

1. Operating Requirements

- a. The number of polymerization batches conducted in the six polymerization esterification units (P001 – P006) shall not exceed 8,286 batches per year. [Approval No. 2069(B)(3)]

2. Recordkeeping Requirements

- a. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]

- (1) The total number of polymerization batches conducted in the six polymerization esterification units (P001-P006). [Approval No. 2069(D)(1)(b)]

Monthly and 12-month rolling totals shall be determined for the above items. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request.

3. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that: [Approval No. 2069(D)(2)]

- (1) The total of number batches processed in the six polymerization esterification units (P001-P006) exceeds 8,286 batches per year. [Approval No. 2069(D)(2)(a)]

Z. Requirements for Emission Unit P109

The following requirements are applicable to:

- Emission unit P109, which is a polyester scrap extruder system in the Lumirror Scrap Warehouse. Emission unit P109 is associated with Air Pollution Control Devices C001 and C002.
- Air pollution control device C001, which is a packed tower scrubber. C001 uses water as its scrubbing liquid.
- Air pollution control device C002, which is a B.G. Wickberg Company, Inc. Catalytic Oxidizer.

1. Operating Requirements

- a. The type of material processed through P109 shall be limited to polyester. [Approval No. 2069(B)(1)]

- b. The maximum quantity of polyester processed through P109 shall not exceed 1,500 pounds per hour. [Approval No. 2069(B)(2)]
- d. All emissions generated from vacuum venting of P109 and die filter cleaning activities shall be captured, contained and routed to C001 and C002 for treatment prior to discharge to the atmosphere. [Approval No. 2069(B)(6)]
- e. C001 and C002 shall be operated according to their design specifications whenever the P109 or the die and filter cleaning activities are in operation or are emitting air contaminants. [16.2, Approval No. 2069(B)(7)]
- f. In case of malfunction of C001 and/or C002, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C001 and/or C002 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P109 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include but is not limited to, the following: [Approval No. 2069(F)(1), 16.3]
 - (1) Identification of the specific air pollution control system (ie. C001, and C002) and the source on which it is installed (ie. P109), [Approval No. 2069(F)(1)(a), 16.3(a)]
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service, [Approval No. 2069(F)(1)(b), 16.3(b)]
 - (3) The nature and quantity of air contaminants likely to be emitted during said period, [Approval No. 2069(F)(1)(c), 16.3(c)]
 - (4) Measures that will be taken to minimize the length of said period, and [Approval No. 2069(F)(1)(d), 16.3(d)]
 - (5) The reasons it would be impossible or impractical to cease the source operation during said period. [Approval No. 2069(F)(1)(e), 16.3(e)]
- g. The permittee may seek to establish that a malfunction of C001 and/or C002 that would result in noncompliance with any of the terms of Section I.Z of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that: [Approval No. 2069(F)(2)]
 - (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation or operator error; [Approval No. 2069(F)(2)(a)]
 - (2) The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance; [Approval No. 2069(F)(2)(b)]

- (3) Repairs necessary to bring C001 and/or C002 back to operating at their design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or materials needed should be shipped overnight where possible or practical. [Approval No. 2069(F)(2)(c)]
- (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed. [Approval No. 2069(F)(2)(d)]
- (5) Emissions during the period of time that the repairs were performed will not: [Approval No. 2069(F)(2)(e)]
 - (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and [Approval No. 2069(F)(2)(e)(1)]
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard. [Approval No. 2069(F)(2)(e)(2)]
- (6) The reasons that it would be impossible or impractical to cease the operation of P109 during said period. [Approval No. 2069(F)(2)(f)]

This demonstration must be provided to the Office of Air Resources within two working days of the time when the malfunction occurred, and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

3. Monitoring Requirements

- a. Scrubber level for control device C001 shall be monitored continuously. [29.6.3(b), Approval No. 2069(C)(1)]
- b. Scrubber liquor make-up rate for control device C001 shall be monitored twice per day. [29.6.3(b), Approval No. 2069(C)(2)]
- c. Outlet temperature and operating temperature for control device C002 shall be monitored continuously. [29.6.3(b), Approval No. 2069(C)(3)]

4. Recordkeeping Requirements

- a. The permittee shall conduct the following recordkeeping requirements for C001 and C002: [29.6.3(b), Approval No. 2069(D)(7)]
 - (1) The permittee shall check the scrubber level and make-up rate for control device C001 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b), Approval No. 2069(D)(7)(a)]
 - (2) The permittee shall check the outlet temperature and operating temperature for control device C002 a minimum of once per day and the date, time and a measurement shall be recorded. If the control device is not operating because the process is shutdown, the permittee shall record that the process is shutdown in lieu of a measurement. [29.6.3(b), Approval No. 2069(D)(7)(b)]
- b. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]
 - (1) The quantity of scrap polyester processed in P109. [Approval No. 2069(D)(1)(a)]

Monthly and 12-month rolling totals shall be determined for each of the above items. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.Z of this permit or any other applicable air pollution control rules and regulations. [Approval No. 2069(D)(9)]

7. Other Requirements

- a. To the extent consistent with the requirements of Section I.Z of this permit and applicable federal and state laws, the facility shall be operated in accordance with the representation of the facility in the permit application. [Approval No. 2069(E)(1)]

b. There shall be no bypassing of C001 and/or C002 during times when VOC or HAP is being discharged to the device. As an exception to this prohibition, the Office of Air Resources may allow bypassing of C001 and/or C002 to perform maintenance on the equipment, if the permittee can demonstrate, to the satisfaction of the Office of Air Resources, that:

- (1) It is impossible or impractical to cease operation of the source during the period of time that maintenance is to be performed; and
- (2) All possible steps will be taken to minimize emissions during the period of time that the maintenance will be performed; and
- (3) Maintenance is to be performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such maintenance is completed as expeditiously as practicable. [Approval No. 1059, 1060 & 1420(F)(4)]

Maintenance activities on this equipment shall be conducted, as needed so as not to exceed lengths of shutdown specified below in Table 1 of this permit. Additionally, in order to minimize emissions during the period of time that the maintenance will be performed, maintenance shall be conducted on only one device at a time.

Table 1

Unit	Air Pollution Control Device	Permitted Shutdown Time	Steps to Reduce Emissions
Scrubber	C001	<36 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
Catalytic Incinerator	C002	<48 Hours per year	Work to be scheduled when at least one polymerization line is shutdown.
RTO	C004	<72 Hours per year	The R-EG Building will be brought off-line; no wastewater will be transferred from WWST No. 2 to WWST No. 1 (during the initial 12 hours of the shutdown) and the agitator in WWST No. 1 and the mixer in WWST No. 2 will be turned off.

c. At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Approval No. 2069(E)(2)]

- d. The cyclone separator and the four cartridge filters installed in association with P109 are considered a process cyclone separator and process cartridge filters. A process cyclone separator and a process cartridge filter means a device whose primary purpose is to recover material as an integral part of a process. The cyclone separator and four cartridge filters shall be in use when P109 is in operation. The permittee may replace the process cyclone separator and the four process filter cartridges with equally or more efficient unit without prior notice to the Office of Air Resources. [Approval No. 2069(E)(5)]

AA. Requirements for Emission Unit P014

The following requirements are applicable to:

- Emission unit P014, which is a Buhler Precrystallizer, Model No. OTWG-890. This unit dries PET chips using heated air.

1. Operating Requirements

- a. The maximum quantity of material processed in P014 shall not exceed 23,145 tons per year. [Approval No. 2069(B)(5)]

2. Recordkeeping Requirements

- a. The permittee shall collect, record and maintain the following information on a monthly basis, no later than 15 days after the first of the month: [Approval No. 2069(D)(1)]

- (1) The quantity of material processed in P014 in tons per year. [Approval No. 2069(D)(1)(d)]

Monthly and 12-month rolling totals shall be determined for each of the above items. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request.

3. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that: [Approval No. 2069(D)(2)]

- (1) The quantity of material processed in P014 exceeds 23,145 tons per year. [Approval No. 2069(D)(2)(c)]

BB. Facility Requirements

1. Emission Limitations

- a. The total quantity of Hazardous Air Pollutant (HAP) emissions discharged to the atmosphere from all operations, for the entire facility shall not exceed 1,666 pounds of any one (1) HAP or 4,166 pounds of any combination of HAPs per calendar month based upon a 12 month rolling average. [Approval Nos. 1059,

1060 & 1420(A)(1)]

- b. The total quantity of emissions discharged to the atmosphere from the entire facility, for any listed toxic air contaminant not identified in Conditions I.V.1.c(1-6) of this permit, shall not exceed the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9. Emissions from activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation. [Approval Nos.1740-1742(A)(3)(f)]
- c. The total quantity of VOC emissions discharged to the atmosphere from all operations conducted for the entire facility shall not exceed 8,167 pounds of VOC per calendar month based upon a 12-month rolling average. [Approval Nos. 1908-1909(A)(1)(b)]
- d. Facility wide emissions of HAPs from organic solvent cleaning operations shall not exceed 1,500 pounds of any one (1) HAP or 4,000 pounds of any combination of HAPs per calendar month, based upon a 12 month rolling average unless a greater quantity of HAP emissions is allowed by an operating permit issued pursuant to Air Pollution Control Regulation No. 29. In no case shall emissions exceed the facility wide emission limits specified in 40 CFR Part 63.471. [36.4.17]
- e. The emissions of listed toxic air contaminants discharged to the atmosphere from the entire facility shall not exceed the limitations in Appendix A Tables 1 and 2 of this permit. These limitations were established to ensure that emissions from this facility do not exceed any of the Acceptable Ambient Levels (AALs) listed in Air Pollution Control Regulation No. 22. The limitations shown in pounds per year are calculated on a 12-month rolling basis. Emissions from activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation. [Approval No. 2069(A)(1)]

2. Operating Requirements

- a. At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Approval Nos. 1740-1742(D)(3), Approval Nos. 1908-1909(E)(3), Approval No. 1671(G)(4)]

3. Recordkeeping Requirements

- a. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of HAP discharged to the atmosphere from the entire facility. The permittee shall keep records of this determination and

provide such records to the Office of Air Resources upon request. [Approval Nos. 1059, 1060 & 1420(D)(1)]

- b. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of VOC discharged to the atmosphere from all operations for the entire facility. Monthly and 12-month rolling averages shall be calculated. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos. 1908-1909(D)(6)]
- c. The permittee shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of acetaldehyde, 1,4-dioxane, ethylene glycol, and formaldehyde and methanol discharged to the atmosphere from the entire facility. Monthly and 12-month rolling averages shall be calculated. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval No. 2069(D)(3)]

4. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources in writing, within 15 days, whenever the total quantity of HAP discharged to the atmosphere exceeds 1,666 pounds of any one (1) HAP or 4,166 pounds of any combination of HAPs per calendar month based upon a 12 month rolling average. [Approval Nos. 1059, 1060 & 1420(D)(2)]
- b. The permittee shall notify the Office of Air Resources in writing, within 15 days, whenever the total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant not identified in Conditions I.V.1.c(1-6), exceeds the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9. [Approval Nos. 1740-1742(C)(9)]
- c. The permittee shall notify the Office of Air Resources, in writing within 15 days, whenever the total quantity of VOC discharged to the atmosphere, based upon a 12-month rolling average, from all operations at this facility, exceeds 8167 pounds per month. [Approval Nos. 1908-1909(D)(7)]
- d. The permittee shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of acetaldehyde, 1,4-dioxane, ethylene glycol, formaldehyde, or methanol discharged to the atmosphere from the entire facility exceeds the 12-month emission limitations in Appendix A Table 1 of this permit. [Approval No. 2069(D)(4)]
- e. The permittee shall notify the Office of Air Resources within 15 days of determining that the total quantity of 1,4-dioxane, ethylene glycol, formaldehyde, or methanol discharged to the atmosphere from the entire facility exceeds the hourly or daily emissions limitations in Appendix A Table 2 of this permit. [Approval No. 2069(D)(5)]

- f. The permittee shall submit to the Office of Air Resources a land use report no later than April 15th of each year. This report shall include, at a minimum, the following information:
- Identification of each receptor that the permittee used an adjusted annual AAL to determine the acceptability of acetaldehyde impacts in the modeling analysis submitted in support of the 24 February 2009 application, as amended, for a new scrap extruder.
 - The land use at that receptor in the modeling analysis.
 - The current land use at that receptor, including zoning, owner and occupant.
 - A statement certifying that no adjusted receptor is located on a parcel that is occupied by a school, day care center, residence or food preparation facility.

In preparing this report, the permittee shall utilize information from the Town of North Kingstown and the Rhode Island Economic Development Corporation.

If, upon review of this report, it is determined that the use of an adjusted AAL is no longer allowable based on changes in land use or other factors that change the potential duration of public exposure to acetaldehyde in that area, the permittee shall submit a plan that demonstrates how the facility will achieve compliance with the AAL for acetaldehyde. This plan shall be filed within 60 days of written notice from the Office of Air Resources that the use of an adjusted AAL is no longer allowable. [Approval No. 2069(D)(12)]

5. Other Requirements

- a. Acetaldehyde emissions from the facility shall not cause an increase in the ground level concentration, at or beyond the facility's property line, in exceedance of 1000 $\mu\text{g}/\text{m}^3$ (1-hour average) and 0.5 $\mu\text{g}/\text{m}^3$ (annual average).

Compliance with this provision shall be based on the procedures outlined in the Rhode Island Guideline for Air Quality Modeling for Air Toxics Sources. [Approval Nos. 1059, 1060 & 1420(F)(3)]

- b. The emission and dispersion characteristics of all sources of any listed toxic air contaminant at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions do not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may reopen this minor source permit if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to this permit to ensure compliance with Air Pollution Control Regulation No. 22. [Approval No. 2069(E)(4)]
- c. If there is any conflict between any emission limitation in Appendix A Table 1 or Table 2 of this permit and any previously issued minor source permit, the permittee shall comply with the emission limitation in this permit. [Approval No. 2069(E)(6)]

SECTION II. GENERAL CONDITIONS

A. Annual Emissions Fee Payment

The permittee shall pay an annual emissions fee as established in Air Pollution Control Regulation No. 28 "Operating Permit Fees". [29.6.8(d)]

B. Permit Renewal and Expiration

This permit is issued for a fixed term of 5 years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least 12 months prior to the date of permit expiration. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the Office of Air Resources on the renewal application. In such an event, the permit shield in Condition II.Y of this permit shall extend beyond the original permit term until renewal. This protection shall cease to apply if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by the Office of Air Resources any additional information identified as being needed to process the application. The application for renewal shall include the current permit number, description of permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. [29.6.8(a), 29.4.2(c), 29.4.6]

C. Transfer of Ownership or Operation

This permit is nontransferable by the permittee. Future owners and operators must obtain a new operating permit from the Office of Air Resources. A change in ownership or operational control of this source is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Office of Air Resources. [29.10.1(a)(4)]

D. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege. [29.6.8(c)(4)]

E. Submissions

1. Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

RIDEM – Office of Air Resources
Compliance Assurance Section
235 Promenade St. Room 230
Providence, RI 02908

2. Any records, compliance certifications and monitoring data required by the provisions of this permit to be submitted to USEPA shall be sent to:

USEPA Region I
Office of Environmental Stewardship
Director, Air Compliance Program
Attn: Air Compliance Clerk
5 Post Office Square Suite 100
Boston, MA 02109-3912

3. Any document submitted shall be certified as being true, accurate, and complete by a responsible official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. [29.6.8(e)]

F. Inspection and Entry

1. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter this facility at all reasonable times for the purpose of:
 - a. having access to and copying at reasonable times any records that must be kept under the conditions of this permit;
 - b. inspecting at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - c. sampling or monitoring, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.[RIGL 23-23-5(7), 29.6.8(f)(1-4), Approval Nos. 969, 1209 and 1363(I)(2), Approval Nos.1059, 1060 & 1420(F)(2), Approval Nos. 1059, 1060, & 1420(D)(9); Approval Nos. 1740-1742(D)(1), Approval Nos. 1908-1909(E)(2), Approval No. 1671(G)(2), Approval No. 2069(E)(3)]

Nothing in this condition shall limit the ability of USEPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the Clean Air Act.

G. Compliance

1. The permittee must comply with all conditions of this permit. Any noncompliance with a federally enforceable permit condition constitutes a violation of the Clean Air Act and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Any noncompliance with a permit condition designated as state only enforceable constitutes a violation of state rules only and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. [29.6.8(c)(1)]
2. For each unit at the facility for which an applicable requirement becomes effective during the permit term, the permittee shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [29.6.5(a)]
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [29.6.8(c)(2)]

H. Excess Emissions Due to an Emergency

As the term is used in this condition an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [29.6.11(b)]

Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain a health based air quality standard.

The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that: [29.6.11(a) & 29.6.11(c)]

1. an emergency occurred and that the permittee can identify the cause(s) of the emergency; [29.6.11(c)(1)]
2. the permitted facility was at the time being properly operated; [29.6.11(c)(2)]
3. during the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and [29.6.11(c)(3)]

4. the permittee submitted notice of the emergency to the Office of Air Resources within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements of Condition II.AA.3 of this permit. [29.6.11(c)(4)]

The permittee shall have the burden of proof in seeking to establish the occurrence of an emergency. [29.6.11(d)]

I. Duty to Provide Information

The permittee shall furnish to the Office of Air Resources, within a reasonable time, any pertinent information that the Office of Air Resources may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Office of Air Resources copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [29.6.8(c)(5)]

J. Duty to Supplement

The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the Office of Air Resources. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit. [29.5.4]

K. Reopening for Cause

The Office of Air Resources will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances: [Approval No. 2069(D)(11)(a-c)]

1. Additional requirements under the Clean Air Act become applicable to a major source 3 or more years prior to the expiration date of this permit. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit, unless this permit or any of its terms and conditions has been extended. [29.6.13(a)]
2. The Office of Air Resources or the Administrator determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. [29.6.13(c)]
3. The Office of Air Resources or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [29.6.13(d)]

Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Office of Air Resources at least 30 days in advance of the date that this permit is to be reopened, except that the Office of Air Resources may provide a shorter time period (but not less than 5 days) in the case of an emergency. [29.9.5(b)]

Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. [29.9.5(a)]

All permit conditions remain in effect until such time as the Office of Air Resources takes final action. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [§70.6(a)(6)(iii)]

L. Severability Clause

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [29.6.8(b)]

M. Off-Permit Changes

1. The permittee is allowed to make certain changes that are not addressed or prohibited by this permit without a permit revision, provided that the following conditions are met: [29.11.2(a)]
 - a. Each such change shall not violate any term or condition of this permit. [29.11.2(b)]
 - b. Each change shall comply with all applicable requirements. [29.11.2(b)]
 - c. Changes under this provision may not include changes or activities subject to any requirement under Title IV or modifications under any provision of Title I of the Clean Air Act. [29.11.2(a)]
 - d. Before the permit change is made, the permittee must provide contemporaneous written notice to the Office of Air Resources and the USEPA Region I, except for changes that qualify as insignificant activities in Appendix A of APC Regulation No. 29. This notice shall describe each change, including the date, and change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change. [29.11.2(c)]
 - e. The permit shield does not apply to changes made under this provision. [29.11.2(d)]
 - f. The permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes, including any other data necessary to show compliance with applicable ambient air quality standards. The record shall reside at the permittee's facility. [29.11.2(e)]

2. Changes made pursuant to this provision shall not be exempt from the requirement to obtain a minor source permit pursuant to the requirements of Air Pollution Control Regulation No. 9, if applicable. [29.11.2(a)]
3. Changes made pursuant to this provision shall be incorporated into this permit at the time of renewal. [29.11.2(f)]

N. Section 502(b)(10) Changes

1. The permittee is allowed to make changes within this permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, whether expressed therein as a rate of emissions or in terms of total emissions and are not Title I modifications. This class of changes does not include:
 - a. changes that would violate applicable requirements; or
 - b. changes to federally-enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements. [29.11.1(a), 29.1.36]
2. The permittee shall provide written notice to the Office of Air Resources and the USEPA Region I of any change made under this provision. The notice must be received by the Office of Air Resources no later than fourteen (14) days in advance of the proposed changes. The notice shall include information describing the nature of the change, the effect of the change on the emission of any air contaminant, the scheduled completion date of the planned change and identify any permit terms or conditions that are no longer applicable as a result of the change. The permittee shall attach each notice to its copy of this permit. [29.11.1(a)(1), 29.11.1(a)(2)]
3. The permittee shall be allowed to make such change proposed in its notice the day following the last day of the advance notice described in paragraph 2 if the Office of Air Resources has not responded nor objected to the proposed change on or before that day. [29.11.1(b)]
4. Any permit shield provided in this permit does not apply to changes made under this provision. If subsequent changes cause the permittee's operations and emissions to revert to those anticipated in this permit, the permittee resumes compliance with the terms and conditions of the permit, and has provided the Office of Air Resources and USEPA with a minimum of fourteen (14) days advance notice of such changes in accordance with the provisions of paragraph 2, the permit shield shall be reinstated in accordance with terms and conditions stated in this permit. [29.11.1(c)]
5. Changes made pursuant to this provision shall be incorporated into the operating permit at the time of renewal. [29.11.1(d)]

O. Emissions Trading

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [29.6.6(a)]

P. Emission of Air Contaminants Detrimental to Person or Property

The permittee shall not emit any air contaminant which either alone or in connection with other emissions, by reason of their concentration or duration, may be injurious to human, plant or animal life, or cause damage to property or which unreasonably interferes with the enjoyment of life or property. [7.2]

Q. Odors

1. The permittee shall not emit or cause to be emitted into the atmosphere any air contaminant or combination of air contaminants which creates an objectionable odor beyond the property line of this facility. [17.2, Approval Nos.1740-1742(A)(4)]
2. A staff member of the Office of Air Resources shall determine by personal observation if an odor is objectionable, taking into account its nature, concentration, location, duration and source. [17.3, Approval Nos.1740-1742(A)(4)]

R. Visible Emissions

1. Except as may be specified in other provisions of this permit, the permittee shall not emit into the atmosphere, from any emission unit, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]
2. Tests for determining compliance with the opacity limitations specified in this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

S. Open Fires

It shall be unlawful for the permittee to burn any material in an open fire, except as provided in APC Regulation No. 4, Section 4.3. [4.2]

T. Construction Permits

It shall be unlawful for the permittee to construct, install, modify or cause the construction, installation or modification of any stationary source subject to the provisions of APC Regulation No. 9 without obtaining either a minor source permit or a major source permit from the Director. [9.2.1]

U. Sulfur in Fuel

1. Except as may be specified in other provisions of this permit, unless the Director declares in writing after a hearing that a shortage of low sulfur fuel exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight, except for use with marine vessels or motor vehicles. [8.2, 8.3.6]
2. Compliance with the sulfur in fuel limitations contained in this section shall be determined by the procedures listed below or by another method deemed equivalent by the Director and USEPA: [29.6.3(b)]
 - a. For each shipment of fuel oil, the permittee shall obtain a certification from the fuel supplier which contains:
 - (1) For distillate fuel oil:
 - (a) The name of the supplier.
 - (b) A statement that the oil complies with the specification for fuel oil number 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils." [27.6.4(a-b)]
 - (2) For residual fuel oil:
 - (a) The name of the supplier,
 - (b) The nitrogen and sulfur content of the oil and the ASTM method used to determine the nitrogen and sulfur content of the oil,
 - (c) The location of the oil when the sample was drawn for analysis to determine the nitrogen and sulfur content of the oil, specifically including whether the oil was sampled as delivered to the permittee or whether the sample was drawn from oil in storage at the oil suppliers/refiners facility or another location. [27.6.5(a – d)]
 - (3) For diesel fuel oil:
 - (a) the name of the supplier
 - (b) a statement that the oil complies with the specification for diesel fuel oil grade 1-D or 2-D, as defined by the American Society for Testing and Materials in ASTM D975-03 "Standard Specification for Fuel Oils."
 - b. As an alternative to fuel oil certification, the permittee may elect to sample the fuel oil prior to combustion. Sampling and analysis shall be conducted after each new shipment of fuel oil is received. Samples shall be collected from the fuel tank

immediately after the fuel tank is filled and before any fuel oil is combusted. [8.4.1(b), 27.6.6]

- c. All fuel oil must be sampled and analyzed according to ASTM methods which have the prior approval of or are required by the Office of Air Resources. [8.4.1(b), 27.6.6]
- d. Copies of the fuel oil analysis sheets shall be maintained at the facility and be made accessible for review by the Office of Air Resources or designated personnel of the Office of Air Resources and USEPA. These records shall include a certified statement, signed by a responsible official, that the records represent all of the fuel combusted during each quarter. [27.6.7]
- e. The Director may require, under his supervision, the collection of fossil fuel samples for the purpose of determining compliance with the sulfur limitations in this permit. Sampling and analysis of fossil fuels under Condition II.U.2 of this permit shall not limit the collection of samples under this condition. [8.4.3]

V. Air Pollution Episodes

Conditions justifying the proclamation of an air pollution alert, air pollution warning or air pollution emergency shall be deemed to exist whenever the Director determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. If the governor declares an air pollution alert, air pollution warning or air pollution emergency, the permittee shall comply with the applicable requirements contained in APC Regulation No. 10. [10.1]

W. Fugitive Dust

The permittee shall not cause or permit any materials, including but not limited to sand, gravel, soil, aggregate and any other organic or inorganic solid matter capable of releasing dust, to be handled, transported, mined, quarried, stored or otherwise utilized in any way so as to cause airborne particulate matter to travel beyond the property line of the facility without taking adequate precautions to prevent particulate matter from becoming airborne. Such precaution shall be in accordance with good industrial practice as determined by the Director and/or shall be other reasonable fugitive dust prevention measures as determined by the Director. [5.3]

X. Compliance Certifications

1. The permittee shall submit a certification of compliance with permit terms and conditions annually. [29.6.5(c)(1)]
2. The certification shall describe the following:
 - a. the permit term or condition that is the basis of the certification; [29.6.5(c)(3)a]
 - b. the current compliance status; [29.6.5(c)(3)b]
 - c. whether compliance was continuous or intermittent; and [29.6.5(c)(3)c]

- d. the methods used for determining compliance, currently and over the reporting period. They shall be submitted within 60 days following the end of the reporting period which is the calendar year unless otherwise specified. [29.6.5(c)(3)d]
3. All compliance certifications shall be submitted to the Office of Air Resources and to the USEPA Region I. [29.6.5(c)(4)]
4. All compliance certifications shall be certified as being true, accurate, and complete by a responsible corporate official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. [29.6.8(e)]

Y. Permit Shield

1. Compliance with the terms and conditions of this permit shall be deemed compliance with all requirements applicable to the source in the following: Approval Nos. 969, 1059, 1060, 1209, 1240, 1363, 1420, 1671, 1740, 1741, 1742, 1908, 1909 and 2069, APC Regulations Nos. 1, 4, 5, 6, 7, 8, 9, 10, 13, 14, 16, 17, 19, 22, 27, 28, 29 and 36, Federal Requirements 40 CFR 60 Subpart Dc, Kb, GG, Subpart A [29.6.12(a)(1)]
2. The Office of Air Resources has determined that units B001-B003, B010-B012, B045, T001-T004, T007, T010, T011, T012, T013, P001-P012, P014, P022, P026, P030-P035, P038, P046-P051, P054, P054A, P056, P057, P060-P064, P076-P078, P098, P099, P100, and P101-P109 are not subject to the following Regulations: RI APC Regulations 3, 11, 12, 15, 20, 21, 24, 25, 26, 30, 31, 32, 33, 35, 39, 41 and 43; Federal Requirements 40 CFR 60 Subparts DDD, SSS and VVV, 40 CFR 63 Subpart JJJ [29.6.12(a)(2)]
3. Nothing in this permit shall alter or affect the following:
 - a. the provisions of Section 303 of the Clean Air Act, including the authority of USEPA under that Section. [29.6.12(c)(1)]
 - b. the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [29.6.12(c)(2)]
 - c. the applicable requirements of the acid rain program consistent with Section 408 of the Clean Air Act. [29.6.12(c)(3)]
 - d. the ability of the USEPA to obtain information under Section 114 of the Act. [29.6.12(c)(4)]
4. If it is determined that this operating permit was issued based on inaccurate or incomplete information provided by the permittee, this permit shield shall be void as to the portions of this permit which are affected, directly or indirectly, by the inaccurate or incomplete information. [29.6.12(d)]

Z. Recordkeeping

1. The permittee shall, at the request of the Director, maintain records of and provide data on operational processes, fuel usage, raw materials, stack dimensions, exhaust gas flow rates and temperatures, emissions of air contaminants, steam or hot water generator capacities, types of equipment producing air contaminants and air pollution control systems or other data that may be necessary to determine if the facility is in compliance with air pollution control regulations. [14.2.1]
2. All records and supporting information required by this permit shall be maintained at the permittee's 50 Belver Ave facility for a period of at least 5 years from the date of sample monitoring, measurement, report or application, and shall be made available to representatives of the Office of Air Resources and USEPA upon request. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [14.2.1, 29.6.4(a)(2), 19.5.3(c), Approval Nos. 969, 1209 and 1363(G)(8), Approval Nos. 1059, 1060 & 1420(D)(8-9), Approval Nos. 1740-1742(C)(14), Approval Nos. 1908-1909(D)(14), Approval No. 1671(F)(12), 40 CFR 60.116b(a), 40 CFR 60.48c(i), 40 CFR 60.7(f), Approval No. 2069(D)(13)]
3. The permittee shall keep records of required monitoring information that include the following:
 - a. The date, place and time of sampling or measurements; [29.6.4(a)(1)]
 - b. The date(s) analyses were performed; [29.6.4(a)(1)]
 - c. The company or entity that performed the analyses; [29.6.4(a)(1)]
 - d. The analytical techniques or methods used; [29.6.4(a)(1)]
 - e. The results of such analyses; and [29.6.4(a)(1)]

AA. Reporting

1. The information recorded by the permittee pursuant to Condition II.Z.1 of this Section shall be summarized and reported at least annually to the Director. It shall be submitted by April 15th unless otherwise specified. [14.2.2] Information submitted pursuant to this condition will be correlated with applicable emissions limitations and other applicable emissions information and will be available for public inspection. [14.2.3]
2. The permittee shall submit reports of any required monitoring for each semi annual period ending 30 June and 31 December of every calendar year. These reports shall be due to the Office of Air Resources no later than forty-five (45) days after the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with condition II.X.4. [29.6.4(b)(1)]

3. Deviations from permit conditions, including those attributable to upset conditions as defined in this permit, shall be reported, in writing, within five (5) business days of the deviation, to the Office of Air Resources. A copy of any such report shall be sent to the USEPA Region I. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. Each report must be certified by a responsible official consistent with Condition II.X.4 of this permit. [29.6.4(b)(2), 19.5.3(d)(1), Approval Nos. 1740-1742(C)(10), Approval Nos. 1908-1909(D)(6) and Approval No. 1671(F)(11), Approval No.2069(D)(8)]
4. The Office of Air Resources shall be notified in writing of any planned physical change or operational change to the emissions units and control devices identified in this permit. Such notification shall include information describing the nature of the change, information describing the effect of the change on the emissions of air contaminants and the scheduled completion date of the planned change. Any change which may result in an increased emission rate of any air contaminant shall be subject to approval of the Office of Air Resources. Approval Nos. 969, 1209 and 1363(G)(3), Approval Nos.1059, 1060 & 1420(D)(7), Approval No. 1240, Approval Nos. 1740-1743(C)(13), 1908-1909(D)(12), 1671(F)(8), 40 CFR 60.7(a)(4), Approval No.2069(D)(10)]

BB. Credible Evidence

For the purpose of submitting compliance certifications or establishing whether or not the permittee has violated or is in violation of any provision of this permit, the methods used in this permit shall be used, as applicable. However, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the permittee would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed. [40 CFR 51.212c, 52.12c, 52.33a]

CC. Emission Statements

1. The permittee shall submit annually an emission statement which includes information for both VOC and NO_x if facility wide actual emissions are 25 tons per year of either pollutant. Emission statements shall be submitted to the Director on April 15th of each year unless otherwise specified. The permittee may apply to the Office of Air Resources to be allowed to discontinue submitting annual emission statements if actual emissions at the facility decrease to below 10 tons per year as a result of a permanent process change. [14.3.1] The permittee shall submit an emission statement in a format approved by the Office of Air Resources. The emission statement shall contain the following information: [14.3.2]
 - a. A certification that the information contained in the emission statement is accurate and complete to the best knowledge of the certifying individual.
 - b. The full name, title, signature, date of signature, and telephone number of the certifying individual.
 - c. Facility identification information, including the full name, physical location, mailing address, latitude, longitude, and four digit SIC code(s).

- d. Process data pertaining to each process emitting VOC and/or NO_x, including:
 - (1) Annual and typical ozone season daily fuel use,
 - (2) Annual and typical ozone season daily process rate(s), and
 - (3) Process throughput while air pollution control equipment was not in operation.

- e. Operating data pertaining to each process emitting VOC and/or NO_x during the reporting year, including:
 - (1) Percentage annual throughput,
 - (2) Average hours of operation per day during the reporting year and on a typical ozone season day,
 - (3) Average number of days of operation per week during the reporting year and during a typical ozone season week, and
 - (4) Weeks of operation during the reporting year and during the peak ozone season.

- f. Control equipment information, including:
 - (1) Specific primary and secondary control equipment for each process emitting VOC and/or NO_x,
 - (2) Current overall control efficiency for each piece of control equipment (indicated by percent capture and percent destruction or removal), and
 - (3) Control equipment downtime during the reporting year and during the peak ozone season.

- g. Emissions information, including:
 - (1) Actual annual and typical ozone season daily emissions of VOC and NO_x for each process. Emissions should be reported in tons per year and in pounds per day.
 - (2) A description of the emission calculation method and, if applicable, emission factor(s) used, and
 - (3) The calendar year for which emissions are reported.

- h. Any additional information required by the Director to document the facility's emission statements.

DD. Miscellaneous Conditions

- 1. This permit may be modified, revoked, reopened, reissued or terminated for cause. The filing of a request, by the permittee, for a permit modification, revocation and reissuance or termination or of a notification of planned changes or anticipated noncompliance does not release the permittee from the conditions of this permit. [29.6.8(c)(3)]

2. Any application for a permit revision need only submit information related to the proposed change. [29.4.3(c)]
3. Terms not otherwise defined in this permit shall have the meaning given to such terms in 40 CFR 60.2 of the Clean Air Act as amended in 1990 or the referenced regulation as applicable.
4. Where more than one condition in this permit applies to an emission unit and/or the entire facility, the most stringent condition shall apply.

SECTION III. SPECIAL CONDITIONS

A. Ozone-depleting Substances

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a. All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
 - b. The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.
 - c. The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
 - d. No person may modify, remove or interfere with the required warning statement except as described in 40 CFR 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.

- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
3. If the permittee manufactures, transforms, imports or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners".

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

B. Prevention of Accidental Releases

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Your facility is subject to the requirements of the General Duty Clause, under Section 112(r)(1) of the CAA Amendments of 1990. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

APPENDIX A

Table 1 - Annual Emission Limitations						
		Allowable Emissions (pounds/year)				
Emission Unit	Source	Acetaldehyde	1,4-Dioxane	Ethylene Glycol	Formaldehyde	Methanol
		lb/yr	lb/yr	lb/yr	lb/yr	lb/yr
P001- P006	Poly ES vessel (P1-P6, PTA)	587	3.82	31.01	0.887	
P006	Poly ES/EI vessel (P6-DMT)					33.51
P088(IA)	Poly EG Preheater			70.74		
P007 - P012	Poly vessels (P1-P6)	269	308.79	1266.7	3.15	
	Controlled emissions P007-P012	338			0.84	
P012	Poly vessel (P6)					125.93
P014	Poly Precrystallizer	933			2.196	
P015-P020(IA)	RIK & L1-L3 CVD (low vacuum)	212.32			0.428	
P013, P015-P020(IA)	RIK & L1-L3 CVD (high vacuum)	345.14	1.26	3.91	0.121	
P037, P065-P067(IA)	RIK & L1-L3 process vacuum & extruder hopper	415.77		1.61	0.849	
P068 - P071	L1 & L2 Sub-extruders	2033.44	14.10	616.98	37.19	
P079-P081(IA)	LUMIRROR Casting Drums	260.18	4.16	17.38	0.710	
P060-P061, P022	Die & Filter A&B Tanks	12.09	51.27			
P023, P098	Poly R-EG Process, Wastewater RTO (up)	831.59	43.66	121.76		3800.84
P106	Torayfan Coaters and A5 Infrared Oven			13.45	13.36	2570
P023	TEG Pit	557.68	3.97			7.47
	Wastewater Mixing Tank	305.05	1.75			4.13
	Wastewater RTO (down)	104.30	0.365			9.65
	Effluent Tub & Effluent Tub Weir	416.27	0.318			0.318
T001	N-EG tank (P107-02-01)			29.20		
T002	P-EG tank (P107-02-02)			79.92		
T003	R-EG tank (P107-09-01)			17.03		73.44
T010	RMA tank (P607-01-01)					78.81
	RMA tank fugitives					4380.0
T005	R-TEG tank (L913-17-01)	4.25	1.724			
TBD	Scrap extruder	101.47	0.703	30.79	1.86	

Table 2 Short-Term Emission Limitations						
Emission unit	Source	Allowable Emissions				
		1,4-Dioxane	Ethylene Glycol	Formaldehyde		Methanol
		lb/hr	lb/hr	lb/hr	lb/day	lb/hr
P001- P006	Poly ES vessel (P1-P6, PTA)	1.75E-03	0.0142	4.05E-04	2.43E-03	
P006	Poly ES/EI vessel (P6-DMT)					3.83E-03
P088(IA)	Poly EG Preheater		0.0323			
P007 - P012	Poly Vessels (P1-P6)	0.141	0.578	1.44E-03	8.64E-03	
	Controlled emissions P007-P012			9.60E-05	2.30E-03	
P012	Poly vessel (P6)					0.0575
P014	Poly Precrystallizer			2.51E-04	6.02E-03	
P015 - P020(IA)	RIK & L1-L3 CVD (low vacuum)			3.42E-04	1.17E-03	
P013, P015-P020(IA)	RIK & L1-L3 CVD (high vacuum)	1.00E-03	3.12E-03	9.68E-05	3.32E-04	
P037, P065 - P067(IA)	RIK, & L1-L3 process vacuum & extruder hopper		1.84E-04	9.69E-05	2.32E-03	
P068 - P071	L1 & L2 Sub-extruders	1.61E-03	0.0704	4.25E-03	0.102	
P079 - P081(IA)	LUMIRROR Casting Drums	4.75E-04	1.98E-03	8.11E-05	1.95E-03	
P060-P061, P022	Die & Filter A&B Tanks	0.179				
P023, P098	Poly R-EG Process, Wastewater RTO (up)	4.98E-03	0.0139			0.434
P106	Torayfan Coaters and A5 Infrared Oven		0.0015	0.0015	0.036	0.2934
P023	TEG pit	4.53E-04				8.52E-04
	Wastewater Mixing Tank	1.99E-04				4.71E-04
	Wastewater RTO (down)	1.76E-03				0.402
	Effluent Tub & Effluent Tub Weir	3.63E-05				3.63E-05
T001	N-EG tank (P107-02-01)		3.33E-03			
T002	P-EG tank (P107-02-02)		9.12E-03			
T003	R-EG tank (P107-09-01)		1.94E-03			8.38E-03
T010	RMA tank (P607-01-01)					9.00E-03
	RMA tank fugitives					0.5000
T005	R-TEG tank (L913-17-01)	1.97E-04				
TBD	Scrap Extruder	8.03E-05	3.51E-03	2.12E-04	5.08E-03	

[Approval No. 2069]