

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 1
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

**TITLE V PERMIT RENEWAL**  
**RECLAIM FACILITY CYCLE 2**

**COMPANY NAME**                    INEOS POLYPROPYLENE LLC

**MAILING ADDRESS**            2384 E. 223<sup>RD</sup> STREET  
CARSON, CA 90810

**EQUIPMENT LOCATION**       2384 E. 223<sup>RD</sup> STREET  
CARSON, CA 90810

**FACILITY ID**                        124808 (CYCLE 2)

;

**CONTACT PERSON**                ROB CRAMMER  
(310) 847-8555

**EQUIPMENT DESCRIPTION**

<i>Application No.</i>	<i>Equipment</i>	<i>Action</i>
543640	TV Renewal	TV Renewal
549890	CAM Plan	Approve CAM Plan

**INTRODUCTION/BACKGROUND:**

INEOS Polypropylene, LLC with Facility ID 124808 currently reports more than 10 tons per year of VOC specified by Table 2 of Rule 3001. This is an existing facility applying for a Title V permit renewal. Initial Title V Facility Permit was issued on September 12, 2008 under A/N 391243 with subsequent revisions. Application no. 543640 was submitted on October 10, 2012 for a Title V permit renewal.

INEOS Polypropylene LLC operates a polypropylene manufacturing plant in Carson, CA. It recovers propylene from the fuel gas of the contiguous Carson Refinery. The process involves the polymerization of polymer-grade propylene generated at the contiguous Carson refinery to produce polypropylene powder. The polypropylene powder is mixed with various additives and extruded to produce polypropylene pellets. The facility produces polypropylene and packages it for distribution. This facility operates several dryers, screens, a reactor, a scrubber, compressors, an extruder,

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 2
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

hoppers, and several storage silos. Several baghouses are used to control emissions of particulate matter from the operation of the pellet blending storage silos and a thermal oxidizer is used to control emissions from the operation of the propylene dryers, the propylene feed drum, the additive tanks, the reactor cycle gas compressor, and the vent recovery compressor.

Along with this TV renewal application, INEOS submitted application no. 549890 for a CAM Plan on April; 16, 2013 .

**APPLICABLE NSPS/NESHAP RULES:**

40 CFR 60 Subpart DDD

40 CFR 64 Compliance Assurance Monitoring (CAM)

**RECOMMENDATION:**

Issue a TV renewal permit after 30-day public comment period and 45 day EPA review period. Include CAM Plan with this renewal.

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 3
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

## **A/N 549890 CAM Plan**

### **INTRODUCTION:**

Application no. 549890 was submitted on April 16, 2013 to comply with the requirements of 40 CFR 64, Continuous Assurance Monitoring (CAM).

The CAM rule contains specific federal monitoring requirements for process equipment which is vented by air pollution control systems where the facilities are major sources, as defined in Title V (Reg 30).

A 13MMBtu per hour thermal oxidizer identified as C2290 and covered under A/N 456013 is the air pollution control equipment venting VOC emissions from the operation of propylene dryers, propylene feed surge drum, reactor cycle gas compressor, additive tanks, vent recovery compressor, vent separator, product purge bin baghouse, recovered propylene dryers, vent recovery refrigeration interchanger, and intensive mixer vent ejector, filter, storage tanks, waste water separators and station sumps. Condition D 28.1 specifies a source test to be conducted on the thermal oxidizer once every three years. The last source test conducted on the thermal oxidizer on May 10, 2012 showed a VOC control efficiency of 99.989% which complies with the minimum destruction efficiency of 99% specified by permit condition A72.1.

A permit condition as shown on the "Recommendation" section below will be imposed on both the VRS thermal oxidizer to comply with the requirements of 40 CFR 64, Continuous Assurance Monitoring, (CAM).

### **CAM REQUIREMENTS:**

A CAM plan must:

- a. Describe the indicators to be monitored;
- b. Describe the ranges or the process to set indicator ranges;
- c. Describe the performance criteria for the monitoring, including
  - specifications for obtaining representative data
  - verification procedures to confirm the monitoring's operational status
  - quality assurance and control procedures
  - monitoring frequency
    - 4 times per hour (minimum) if post control emissions are equal to or exceed the major source threshold
    - 1 time per day (minimum) if post control emissions are less than

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 4
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

- the major source threshold
- data averaging period;
  - d. Provide a justification for the use of parameters, ranges, and monitoring approach;
  - e. Provide emissions test data; and, if necessary,
  - f. Provide an implementation plan for installing, testing, and operating the monitoring.

Permits are required to have the following items:

- a. The approved monitoring approach, including the indicators - or the means to measure the indicators - to be monitored;
- b. A definition of exceedances or excursions;
- c. The duty to conduct monitoring;
- d. Minimum data availability and averaging period requirements; and
- e. Milestones for testing, installation, or final verification.

**MAJOR SOURCE THRESHOLDS:**

The applicable Major Source Threshold (MST) in this case is VOC with the following controlled and uncontrolled emissions. Controlled emissions are based on permit conditions limiting VOC emissions. The emission levels (maximum annual PTE) attributed to the subject source, and the corresponding minimum monitoring interval is indicated in the following table:

**Evaluation of Monitoring Requirements**

Device	A/N and/or P/O	VOC, R1, tons/year (max PTE)	VOC, R2, tons/year (max PTE)	MST tons/year	Proposed Monitoring Requirement
Thermal Oxidizer (C2290)	456013 (G1304)	890	12.666 (@95% DRE)	10	Continuous monitoring of combustion chamber temperature

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 5
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

**“Applicable” Regulations, Emission Limits, and Monitoring Requirements**

PSEU and CONTROL DEVICE	RULES	CONTAMINANT	CONTROLLED EMISSIONS LIMIT
Thermal Oxidizer (venting propylene dryers, propylene feed surge drum, reactor cycle gas compressor, additive tanks, vent recovery compressor, vent separator, product purge bin baghouse, recovered propylene dryers, vent recovery refrigeration interchanger, and intensive mixer vent ejector.)	1303(b)(2) -Offsets	VOC	69.40 lb/day

**MONITORING APPROACH**

The key elements of the monitoring approach are presented below:

**A. Indicator**

Minimum combustion chamber temperature of 1400 degrees Fahrenheit in the thermal oxidizer.

**B. Measurement Approach**

Temperature measuring and recording system to continuously measure and record the combustion chamber temperature with an accuracy of within 1% of the temperature being monitored

**C. Indicator Range**

The operator shall review the records of the combustion chamber temperature on a daily basis to determine if deviation occurs or install an alarm system to alert the operator when a deviation occurs. Whenever a deviation occurs, the operator shall inspect the equipment to identify the cause

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 6
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

of such a deviation, take immediate corrective action to maintain the combustion temperature at or above 1400 degrees Fahrenheit and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective action taken.

**D. QIP Threshold**

The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period. The operator shall submit an application with a Quality Improvement Plan (QIP) if an accumulation of deviations exceeds 5 percent duration of this equipment's total operating time for any semi-annual reporting period. The required QIP shall be submitted to the AQM D within 90 calendar days after the due date for the semi-annual monitoring report.

**E. Performance Criteria**

Data Representativeness:	The temperature measuring and recording system to continuously measure and record the combustion chamber temperature of the equipment.
Verification of Operational Status:	The temperature measuring and recording system shall have an accuracy within 1% of the temperature being monitored and shall be inspected and maintained on an annual basis and calibrated once every 18 months.
QA/QC Practice and Criteria:	The temperature measuring and recording system shall be inspected and maintained on an annual basis and calibrated once every 18 months.
Monitoring Frequency and Data Collection Procedure:	The temperature measuring and recording system continuously measures and records the combustion chamber temperature of the equipment.

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES 8	PAGE 7
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

**RECOMMENDATION**

Approve CAM Plan under A/N 549890, include 40 CFR 64 in Section I, and add/update with the following condition(s) to A/N 456013.

**Condition E 193.XX(A/N 456013) Thermal Oxidizer, C2290**

The operator shall operate and maintain this equipment according to the following requirements:

The combustion chamber temperature shall be maintained at a minimum of 1,400 degrees Fahrenheit whenever the equipment it serves is in operation.

The operator shall operate and maintain a temperature measuring and recording system to continuously measure and record the combustion chamber temperature pursuant to the operation and maintenance requirements specified in 40 CFR Part 64.7. Such a system shall have an accuracy of within 1% of the temperature being monitored and shall be inspected and , maintained on an annual basis, and calibrated once every 18 months in accordance with the manufacturer’s specifications using an applicable AQMD or EPA approved method.

For the purpose of this condition, a deviation shall be defined as when a combustion chamber temperature of less than 1,400 degrees Fahrenheit occurs during normal operation of the equipment it serves. The operator shall review the records of the combustion chamber temperature on a daily basis to determine if a deviation occurs or shall install an alarm system to alert the operator when a deviation occurs.

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the combustion chamber temperature at or above 1,400 degrees Fahrenheit, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective action taken.

All deviations shall be reported to the AQMD on a semi-annual basis pursuant to the requirements specified in 40 CFR Part 64.9 and Condition Nos. 22 and 23 in Section K of this permit. The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit.

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE DIVISION</b>  <b>PERMIT APPLICATION EVALUATION AND CALCULATIONS</b>	PAGES	PAGE
	8	8
	APPL NO 543640,549890	DATE 9-11-2013
	PROCESSED BY BCW	CHECKED BY

The operator shall submit an application with a Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if an accumulation of deviations exceeds 5 percent duration of this equipment's total operating time for any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report.

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications.

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR Part 64, 10-22-1997]**