INTERTAPE POLYMER GROUP
VOC COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

I. BACKGROUND

A. Facility Identification

Intertape Polymer Group (SRN A6220)
317 Kendall Ave
Marysville MI 48040

B. Emission Unit(s)

Emission group FG-COATINGPROCESS, specifically EUCOATINGLINE1, EUCOATINGLINE3, EUCOATINGLINE4, and EUPILOT-LINE

C. Applicable Regulation, Emission Limit, Monitoring Requirement

The Renewable Operating Permit, MI-ROP-A6220-2015a, specifies the following VOC emission limits:

- 4.79 lb/gallon coating solids applied; 24-hour average (FG-COATINGPROCESS)
- 32.87 lb/hr (EUPILOT-LINE only)
- 65.74 tons/yr (EUPILOT-LINE only)

The following monitoring requirements are specified in MI-ROP-A6220-2015a that are relevant to the VOC emission limitations specified above:

- The permittee shall monitor operating parameters to ensure that the capture efficiency determined during the compliance test is maintained. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained

- The permittee shall monitor and record the temperature from the regenerative thermal oxidizer on a continuous basis in a manner and with instrumentation acceptable to the AQD

- The permittee shall keep daily records of the solvent usage on EUCOATINGLINE1, EUCOATINGLINE3, and EUCOATINGLINE4 and solvent recovery. Determine the overall solvent collection and recovery efficiency (Rr) for each day using a 30-day rolling period

D. Control Technology

VOC exhausted from the coating lines is captured and directed to a regenerative thermal oxidizer (RTO) and solvent recovery system (SRS) for emission reduction. Except for EUPILOT-LINE, which is only connected to the RTO.

II. MONITORING APPROACH

VOC emission reduction and VOC emission rate determination consist primarily of three components; capture efficiency of the RTO air collection system, destruction efficiency in the RTO, and recovery efficiency in the SRS.

A. RTO Capture Efficiency

RTO capture efficiency is verified by monitoring the static pressure at the exhaust fan inlet for each oven zone controlled by the RTO. A detailed RTO Capture System Monitoring Plan is included in the Malfunction Abatement Plan (MAP) for the SRS and RTO. Below is a summary of monitored parameters.

Indicator — IPG monitors the static pressure at the exhaust fan inlet for each oven zone controlled by the RTO using pressure transmitters

Range: — The static pressure range for each location is established by determining the average static pressure measured during the capture efficiency performance test, then setting the lower boundary at 75% of the average. These values are specified in the RTO Capture System Monitoring Plan in the MAP. Static pressures less than these values require corrective action.

B. RTO Destruction Efficiency

RTO destruction efficiency is verified by monitoring the RTO combustion chamber temperature. A detailed Monitoring Plan is included in the Malfunction Abatement Plan (MAP) for the SRS and RTO and in Appendix 3 of MI-ROP-A6220-2015a. Below is a summary of monitored parameters.

Indicator — IPG monitors the combustion chamber temperature using permanently-installed thermocouples.

Range: — The minimum RTO temperature is established during the destruction efficiency performance test. In 2017, a destruction efficiency of 98.1% by weight was demonstrated at an average combustion chamber temperature of 1444°F (three-hour average). The 3-hr average RTO combustion chamber temperature must be maintained at or above this value or corrective action is required.

C. SRS Recovery Efficiency

SRS recovery efficiency is verified by monitoring the amount of solvents (VOC) used on coating stations that are exhaust to the SRS and the amount of solvent recovered on a rolling 30-day period. A detailed Monitoring Plan is included in the Malfunction Abatement Plan (MAP) for the SRS and RTO and in Appendix 3 of MI-RTO-A6220-2015a. Below is a summary of monitored parameters.

Indicator	SRS recovery efficiency (% by weight) is calculated on a 30-day rolling average by monitoring the amount of solvent used on the coating lines and amount of solvent recovered as measured by the SRS flow meter.
Range:	As specified in the MAP, if the 30-day average SRS collection efficiency is less than 75.2% (by weight) correction action is required.

III. PERFORMANCE CRITERIA

A. RTO Capture Efficiency

Monitoring Frequency:	The static pressure is monitored continuously and recorded every 15 minutes.
Quality Assurance:	Static pressure monitors are checked and/or calibrated according to the MAP.

B. RTO Destruction Efficiency

Monitoring Frequency:	The RTO combustion chamber temperature is monitored continuously and recorded every 15 minutes. Average combustion temperature is determined over a 3-hour period.
Quality Assurance:	RTO thermocouples are checked and/or calibrated according to the MAP.

C. SRS Recovery Efficiency

Monitoring Frequency:	The amount of solvent used and recovered is recorded daily. The recovery efficiency is calculated on a 30-day rolling period.
Quality Assurance:	Solvent flowmeters are checked and/or calibrated according to the MAP.

IV. JUSTIFICATION

The monitoring procedures and performance indicators specified in this plan are from the Paper and Other Web Coating MACT (POWC MACT); 40 CFR Part 63 Subpart JJJJ and have been included in the IPG Renewable Operating Permit MI-ROP-A6220-2015a. The primary VOC used at IPG is toluene, which is also the primary HAP used by IPG. Therefore, the monitoring specified in the POWC MACT for HAPs is presumed to be acceptable for this VOC CAM.

Michigan Department of Environmental Quality - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: A6220	Section Number (if applicable):

1. Additional Information ID
AI-CAM_PM_EMISSIONS

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

The Michigan Department of Enviroment, Great Lakes and Energy (EGLE) requested that Intertape Polymer Group (IPG) evalute whether the Compliance Assurance Monitoring (CAM) requirements apply to the baghouse dust collectors operated at the Marysville facilty. Our determination is that CAM does not apply to the baghouse dust collectors. This analysis is being provided as part of the renewal application as additional information.

An emission unit is subject to CAM if it satisfies all of the following criteria:

(1) The emission unit uses a control device to achieve compliance with a federally enforceable emission limitation or standard for the applicable pollutant.

(2) The emission unit has potential pre-control emissions greater than 100% of the major source threshold for the applicable pollutant.

(3) The emission limitation or standard does not meet a CAM exemption.

The emission units associated with the baghouse dust collectors (EUCOMPOUNDING and EUWETMIXEXTRUDER) do not have pre-control PM emissions that exceed 100 tons/yr.

As an example, the baghouse dust collectors associated with EUCOMPOUNDING operated for 3,222 hours in calendar year 2018. The facility reported 2,630 pounds of PM emissions (using MAERS emission factors) and shipped out 36,200 pounds of collected dust. Adding these values represents the amount of potential pre-control emissions. If the process were to operate continuously (8,760 hr/yr) the potential pre-control emissions would be 53 tons/yr:

(2,630 + 36,200) pounds PM x (8760 hr/yr) / (3222 hr/yr) = 105,600 lb/yr PM = 53 tons/yr

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: A6220	Section Number (if applicable):

1. Additional Information ID
AI-COMPLIANCE_PLAN

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

Intertape Polymer Group (IPG) recently provided the Michigan Department of Environment, Great Lakes and Energy (ELGE) with a notification regarding the applicability of the Miscellaneous Coating Manufacturing (MCM) MACT; 40 CFR Part 63 Subpart HHHHH (5H).

Starting in 2015, a small portion of the adhesives manufactured at the IPG Marysville facility began being shipped to a other IPG facilities for use or repackaging. The adhesives (those being shipped off site) are the same or similar to those used in the IPG Marysville coating lines, are prepared using existing equipment, and required no modifications to the existing adhesive mixing operations. It was determined that the IPG Marysville adhesive mixing operations are subject to the MCM MACT whenever HAP-containing adhesives are prepared on-site that are not used in affiliated operations at the same location.

Attached are a Compliance / Implementation Plan and Notification of MACT Applicability that were provided to EGLE.

June 20, 2019

Ms. Joyce Zhu
District Supervisor, Air Quality Division
State of Michigan
Department of Environment, Great Lakes and Energy
Southeast Michigan District Office
27700 Donald Court
Warren, MI 48092-2793

Re: Disclosure of Potential Non-Compliance at Marysville, MI Facility

Dear Ms. Zhu:

As discussed during our phone conversation on 06/14/2019, it has come to our attention in the course of preparing our Title V permit renewal application for our Marysville, MI facility (the "Facility") that the Facility is subject to the National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Miscellaneous Coating Manufacturing ("MCM") (40 CFR part 63, subpart HHHHH) Maximum Available Control Technology ("MACT"). As you know, the Facility is already subject to the NESHAP MACT for Paper and Other Web Coating ("POWC") (40 CFR part 63, subpart JJJJ), and we believe that the Facility is operating in compliance with that standard. We were not aware until recently that the MCM MACT might also apply because some of the adhesive mixing operations occurring at the Facility are used to product a HAP containing coating material that is sent to an affiliated IPG facility and to a separate company to be packaged into small containers.

As soon as this issue came to our attention, we began an internal investigation to determine the best steps to bring the Facility's operations into compliance with the NESHAP MCM MACT. Attached is a summary of our corrective action plan. We anticipate having more information for scope and timing of add on controls once the engineering review project is completed. We will update your team as information becomes available. In the interim, we are implementing best practices to minimize fugitive emissions from affected process equipment. We are committed to ensuring that our corrective action plan addresses any potential non-compliance conditions related to MCM MACT applicability.

Please advise if additional information is needed as we implement our corrective action plan.

Very truly yours,

Melissa Oakley

cc: Brian Newman. IPG
Rick Carnell, IPG
James Leitheiser, IPG
Aaron Weiner, IPG
Doug Nalette, IPG
Robert Harvey, Impact Compliance & Testing

100 Paramount Drive, Suite 300 • Sarasota, Florida 34232 | Toll Free: 800-474-8273 | www.itape.com

IPG Marysville Facility MCM MACT Implementation Plan

Standard	HAP used in the process	Affected Process	Process Description	Affected Products	Actions Taken to Implement Requirements
Subpart HHHHH National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing	Toluene	EUWETMIX&WHIP-OP Mixing Vessels 4, 5, and 6 Churns 4, 5, and 6	Adhesive and coating preparations- mixing and blending of ingredients prior to application, mixing for viscosity adjustment, additive blending, cleaning of preparation equipment and coating line parts, handling, storage and transfer of coatings and solvents.	1. 591 and stencil adhesives produced and sent to the IPG CI facility. 2. Stencil filler adhesive produced and sent to a 3rd party for packaging into one- gallon containers.	IPG is investigating the following options: • Discontinuing the processes that are subject to the MCM MACT rule. These options may include transferring the 591 and stencil adhesive mixing process to the IPG CI facility where the adhesives are subsequently used and outsourcing production of stencil filler adhesive. • Design and install MCM MACT compliant emission controls on affected process equipment. An engineering consultant has been contracted to develop a design specification for add on control equipment for affected processes.
		EUWETMIX&WHIP-OP Portable tank (IBC) WIP Process	A portable tank containing adhesive is transferred to the WIP Room where an agitator device is placed into the portable tank and heptane (a non-HAP) is added to the adhesive. The agitator device mixes the heptane into the adhesive solution.		
		EUSTORAGETANK1 AND EUSTORAGETANK2 UST Toluene Storage	Underground storage tanks (20,00 gallon capacity) containing recovered toluene from the carbon adsorption system.		

June 19, 2019

State of Michigan
Dept. of Environment, Great Lakes, and Energy
Air Quality Division
Southeast Michigan District Office
27700 Donaldson Ct
Warren MI 48092

Subject: Notification of MACT Applicability
Intertape Polymer Group, Marysville, Michigan (SRN A6220)
Miscellaneous Coating Manufacturing MACT; 40 CFR Part 63 Subpart HHHHH

Intertape Polymer Group (IPG) is providing this initial notification for applicability of the Miscellaneous Coating Manufacturing (MCM) MACT; 40 CFR Part 63 Subpart HHHHH (5H).

IPG operates an adhesive tape manufacturing facility located in Marysville, Michigan that is a major source of HAP emissions and has been issued Renewable Operating Permit MI-ROP-A6220-2015a. The facility mixes HAP-containing adhesives that are used in its coating processes. The coating processes are subject to the requirements of the Paper and Other Web Coating (POWC) MACT; 40 CFR Part 63 Subpart JJJJ, and the adhesive mixing operations are exempt from the MCM MACT when producing coatings used in POWC MACT-subject coating processes at the same location.

Starting in 2015, a small portion of the adhesives manufactured at the IPG Marysville facility began being shipped to other IPG facilities for use or repackaging. The adhesives (those being shipped off site) are the same or similar to those used in the IPG Marysville coating lines, are prepared using existing equipment, and required no modifications to the existing adhesive mixing operations. It has recently come to our attention that the IPG Marysville adhesive mixing operations are subject to the MCM MACT whenever HAP-containing adhesives are prepared that are not used in affiliated operations at the same location.

The information presented in the following table is being provided to satisfy the notification requirements specified in §63.8070 of the MCM MACT and §63.9 of the General Provisions.

Facility Name and Address Mailing and Physical Location 40CFR §63.9(b)(2)(i) and (ii)	Intertape Polymer Group 317 Kendall Ave Marysville (St. Clair County) MI 48040
Facility ID	Michigan State Registration No. A6220

Source Category 40CFR §63.9(b)(2)(v)	Major HAP
Do you currently have or are you in the process of obtaining a federally enforceable permit limit for HAPs?	Renewable Operating Permit MI-ROP-A6220-2015a contains federally-enforceable limits for the POWC MACT processes. IPG is in the process of submitting a corrective action compliance plan for the MCM MACT that may include the issuance of federally-enforceable permit limits for the MCM MACT.
Relevant standard and compliance date 40CFR §63.9(b)(2)(iii)	IPG is an existing affected source and certain processes became subject to the MCM MACT in 2015. The initial notification is required within 120 days of becoming subject to Subpart HHHHH. IPG is in the process of submitting a corrective action compliance plan for the MCM MACT
Description of sources belonging to relevant source category and types of HAP emitted 40CFR §63.9(b)(2)(iv)	Toluene underground storage tanks (FG-STORAGETANKS). Stationary adhesive mixing vessels and portable containers (EUWETMIX&WHIP-OP) for adhesives that contain toluene and are not used at the Marysville location.

Responsible Official Certification

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained or referenced in this initial notification report are true, accurate, and complete.

Brian Newman	Operations Manager	06/19/2019
	Title	Date

c: Attn: Compliance Tracker, AE-18J
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

Michigan Department of Environmental Quality - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION
AI-001: ADDITIONAL INFORMATION

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	SRN: A6220	Section Number (if applicable):

1. Additional Information ID
AI-MAP_BAGHOUSES

Additional Information

2. Is This Information Confidential? ☐ Yes ☒ No

The conditions of MI-ROP-A6220-2015a and PTI 81-14 require Intertape Polymer Group to maintain a Malfuncation Abatement Plan (MAP) or Preventative Maintenance Plan (PMP) for the fabric filter baghouses associated with EUCOMPOUNDING and EUWETMIXEXTRUDER.

Attached is most recent version of the PMP for Baghouses.

Preventative Maintenance Plan (PMP) for Baghouses

Intertape Polymer Group

317 Kendall Avenue
Marysville, Michigan 48040

July 2004

Revision 1 September 29, 2004
Revision 2 February 23, 2005
Revision 3 June 9, 2017

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Figure 1: Organizational Chart for Administration of the PMP

Section 1
Introduction

Intertape Polymer Group (IPG) developed this Preventative Maintenance Plan (PMP) to simplify and provide a clear understanding of maintenance and management responsibility concerning air pollution control (APC) equipment. The plan identifies the personnel responsible for overseeing and the actions for performing the inspection, maintenance, and repair of APC equipment. This PMP also identifies APC device monitoring ranges (*e.g.*, pressure differential across the baghouse) that demonstrate proper operation of the APC devices as required by the Title V Renewable Operating Permit (ROP) No. MI-ROP-A6220-2015a for the IPG facility.

Proper operation and maintenance of APC equipment minimizes emissions of air pollutants, reduces the potential for equipment upsets, and ensures continued compliance with Michigan Department of Environmental Quality – Air Quality Division (MDEQ-AQD) air pollution control regulations. Regardless of how well an APC system is designed, poor operation and maintenance can lead to the deterioration of the various components and to a decline in the pollutant removal efficiency. When process operations must be curtailed or shut down to minimize emissions during outages of APC equipment, the plant's productivity suffers, which in turn affects delivery to IPG's customers. Therefore, IPG strives to maintain the APC equipment in good working condition and regularly performs preventative maintenance.

Regular monitoring of the collection systems through daily, weekly, and monthly monitoring supports the continued implementation of the PMP. Nevertheless, APC system malfunctions may occur. In the event of a potential APC system malfunction, the monitoring of performance parameters in this PMP may require Reactive Maintenance by IPG. It is IPG's intent to investigate every abnormal situation identified by the PMP monitoring of system parameters and performance within one hour from the time it is first identified and to promptly initiate corrective or appropriate response actions. However, this response or corrective action may be limited by IPG's standard operating procedures (SOPs) and requirements for shut down of equipment in a safe manner. In addition, because the frequency of the ROP performance monitoring varies and is not continuous in all cases, identification of an abnormal situation may depend on the frequency of monitoring observations.

The other sections of the PMP include:

- Section 2 (Air Pollution Control Device Summary) summarizes the regulated APC equipment employed at the Marysville, Michigan facility and describes the emission units that are controlled by each control device. This section also presents the acceptable operating ranges for the monitoring of APC devices.

- Section 3 (Management and Staff) describes the organization and responsibilities of the APC staff.
- Sections 4 (Maintenance and Operating Manuals) describes the management and upkeep of maintenance and operating procedures for the individual APC devices.
- Section 5 (Spare Parts) provides information regarding spare parts lists.
- Section 6 (Work Order Systems) details the procedures required for proper communication and follow-through on routine or abnormal maintenance procedures.
- Section 7 (Reactive Maintenance) includes a summary table of common APC device problems with recommended immediate correction responses.
- Section 8 (Preventative Maintenance) includes a summary table of preventative measures to be taken for each APC device to minimize APC device problems.
- Section 9 (Recordkeeping) describes the methods used to keep records of Preventative and/or Reactive Maintenance work performed.

Section 2
Air Pollution Control Device Summary

The table below presents the APC devices that control emissions from the emission units at IPG and the acceptable operating ranges for monitoring of the APC devices. These values are based on past operating and performance evaluation experience, and operation of the APC devices within these ranges (excluding normal startup and shutdown conditions) verifies the APC device is operating properly. The equipment will be operated within the ranges shown in the table below. The monitoring ranges for the APC devices do not apply during normal startup and shutdown conditions because the ranges proposed in the PMP apply to steady-state operations.

Air Pollution Control Device Identification	Emission Units Controlled	Acceptable APC Device Operating Range	Measure & Record Per ROP(1)
Baghouse 1 (Asset No. 01)	EGCOMPOUNDING: BAN-RAM-DUST1	Pressure Drop: .1< 3.0" W.G.	Once Weekly
Baghouse 2 (Asset No. 02)	EGCOMPOUNDING: BAN-RAM-DUST2	Pressure Drop: .1< 3.0" W.G.	Once Weekly
TubeJet Dust Collector	EUWETMIXEXTRUDER	Pressure Drop: .1< 5.0" W.G.	Continuous when in use

" W.G." = inches of water gauge

(1) IPG measures and records only when the process is operating, as specified in the ROP No. MI-ROP-A6220-2015.

If IPG's monitoring shows the APC operating parameter identified in this section falls outside of these operating ranges, IPG will initiate reactive maintenance responses (see Section 7). In the future, IPG may determine the APC device is operating properly at values outside of the previously established acceptable operating range. In that case and with AQD approval, IPG may modify this PMP to reflect an updated "acceptable" operating range that supports proper APC device performance and compliance with the appropriate emission limits.

Section 3
Management and Staff

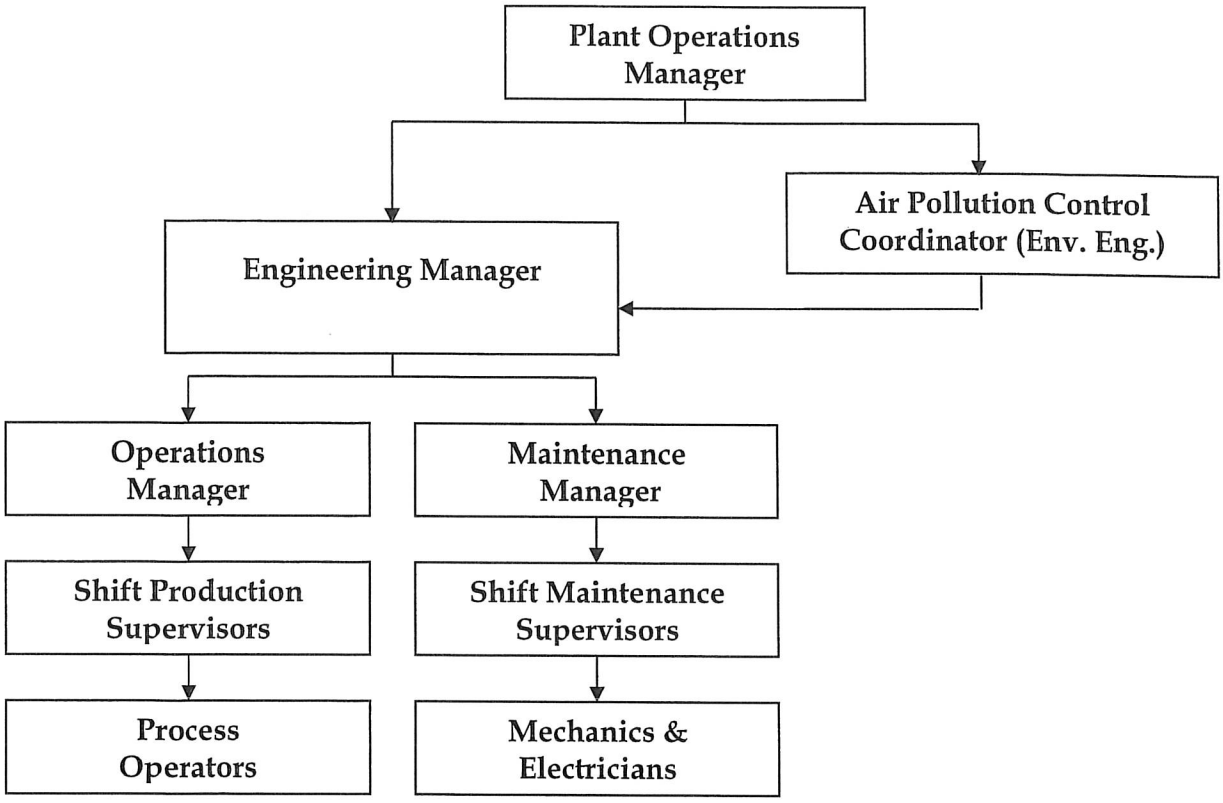
Coordination of the operation and maintenance of all APC equipment is the responsibility of the APC Coordinator (Environmental Manager). All routine and special maintenance procedures along with the ongoing monitoring program are the direct responsibility of the Maintenance Manager and his Shift Maintenance Supervisors.

All requests for repair and/or investigation of abnormal operation should go through the Maintenance Manager or Shift Maintenance Supervisor. Upon completion of repairs, documentation of the repair should also be sent to the Maintenance Manager or Shift Maintenance Supervisor. The APC Coordinator will coordinate the administration of this PMP and ensure that appropriate action is taken for equipment malfunctions and air pollution releases.

Figure 1 is an organizational chart illustrating the hierarchy for administration of the PMP by operational and maintenance employees.

By maintaining effective lines of communication between employees and the APC Coordinator concerning operating parameters and maintenance, operating problems can be minimized and APC failures can be corrected and/or prevented, as specified in Table 1, "Summary of Reactive Maintenance" and Table 2, "Summary of Preventative Maintenance."

Figure 1. Organizational Chart for Administration of the PMP



Section 4
Maintenance and Operating Manuals

Maintenance manuals (combined with operations manuals) for the APC equipment are maintained in the Engineering and/or Maintenance department(s). The maintenance and operations managers are responsible for keeping these manuals current and will evaluate the technical information for the APC equipment and update the information as necessary.

Maintenance manuals for the APC equipment will contain descriptions of the APC equipment, operation, safety equipment, and manufacturer maintenance information.

Operating manuals for the APC equipment will contain descriptions of the APC equipment and operation, operational factors, and manufacturer recommended startup/shutdown procedures.

Section 5
Spare Parts

Spare parts lists are included in the maintenance manuals and/or the computerized inventory per the manufacturers' recommendations or IPG operating experience. The Maintenance Manager is responsible for updating any spare parts inventory as operational and equipment changes occur. The critical spare parts include fan motors, bag shaker motors, dust collector bags, Magnehelics, and spare control components as appropriate for each APC system.

Section 6
Work Order Systems

IPG utilizes a preventative maintenance program software, called Maintmizer, to administer and schedule preventative and reactive maintenance for APC equipment. The Maintmizer work order system provides:

- Systematic screening and authorization of requested work
- Necessary information for planning and coordinating future work
- Cost information for future planning
- Instructions for management and craftsmen in the performance of repairs
- Identification of the equipment that needs to be repaired (or replaced/redesigned).
- Records of maintenance work performed.

Work order requests concerning repairs to APC equipment or process equipment that can affect APC equipment can be generated by anyone familiar with the operation of the APC equipment. Irregularities in operations, as evident from routine monitoring as presented in Tables 1 and 2, will result in a work order request being generated. The Maintenance Manager or Shift Maintenance Supervisor assigns a level of priority to the work order request. The Maintenance Manager or Shift Maintenance Supervisor then decides on a course of action and assigns resources to resolve the work order in a manner consistent with the requirements of the ROP.

Section 7
Reactive Maintenance

Table 1 summarizes the reactive maintenance responses for APC device monitoring values that fall outside of the acceptable range. Based on past operating experience and knowledge of proper APC device operation, IPG has established monitoring ranges for implementing the reactive maintenance. IPG may change the Reactive Maintenance response procedure if new operating experience and historical performance of the APC device operation warrants.

Operation of the APC devices within the acceptable range is indicative of proper and compliant APC device operation. While operation of the APC device outside of the "acceptable" monitoring range may indicate a potential equipment problem, diagnosis and determination of the consequences of these values depends on the information gathered upon response. Therefore, depending on the circumstances of each particular event, it may be possible to conclude the APC device was operating properly and compliant with the applicable emission limit even if the monitoring values were outside of the "acceptable" range. For example, Magnehelic devices occasionally get plugged with dust, malfunction, and produce a false reading. In this situation, the gauge is cleaned, put back into service and the correct reading is taken showing the baghouse was operating properly. In that case, it may also be appropriate to perform a non-certified visual emission observation. IPG will track and document when the APC device monitoring falls outsides of the acceptable operating range as described in Section 9, Recordkeeping. IPG will maintain a record of the corrective "response actions" taken when reactive maintenance response is required (see Table 1).

It is IPG's intent to investigate every abnormal situation identified by the PMP monitoring of system parameters and performance within one hour from the time it is first identified and to promptly initiate corrective or appropriate response actions. However, this response or corrective action may be limited by IPG's SOPs and requirements for shut down of equipment in a safe manner. In addition, because the frequency of the ROP performance monitoring varies and is not continuous in all cases (*e.g.*, the ROP requires weekly pressure drop observations), identification of an abnormal situation may depend on the frequency of monitoring observations.

Table 1
Summary of Reactive Maintenance
Intertape Polymer Group, Inc. - Marysville, MI

PROBLEM	EMISSION UNITS	MAXIMUM ACCEPTABLE MAGNEHELIC READING	RESPONSE
HIGH DIFFERENTIAL PRESSURE	EGCOMPOUNDING: BAN-RAM-DUST1 (Asset No. 01)	3.0" W.G.	If above the maximum acceptable Magnehelic reading, call the Maintenance Department. Maintenance checks, as necessary, for improper operation of Magnehelics, bag condition, excessive dust in the dust collector hopper, improper operation of dampers, improper operation of shaker cleaning system, restricted ductwork, high humidity in exhaust air. Determine what the problem is and repair it.
	EGCOMPOUNDING: BAN-RAM-DUST2 (Asset No. 02)	3.0" W.G.	Same response procedures as BAN-RAM-DUST1.
	EGCOMPOUNDING: TubeJet Dust Collector	3.0" W.G.	If above the maximum acceptable Magnehelic reading, call the Maintenance Department. Maintenance checks, as necessary, for improper operation of Magnehelics, bag condition, excessive dust in the dust collector hopper, improper operation of dampers, improper operation of shaker cleaning system, restricted ductwork, high humidity in exhaust air. Determine what the problem is and repair it. Maintenance to refer to the trouble shooting section of the Operating Instructions for the TubeJet Dust Collector.
LOW DIFFERENTIAL PRESSURE	EGCOMPOUNDING: BAN-RAM-DUST1 (Asset No. 01)	.1" W.G.	If above the maximum acceptable Magnehelic reading, call the Maintenance Department. Maintenance checks, as necessary, for improper operation of Magnehelics, bag condition, improper operation of dampers, improper operation of shaker cleaning system. Determine what the problem is and repair it.

	EGCOMPOUNDING: BAN-RAM-DUST2 (Asset No. 02)	.1" W.G.	Same response procedures as BAN-RAM-DUST1.

Section 8
Preventative Maintenance

As mentioned previously, IPG uses the Maintmizer software system to organize and manage the frequency and schedule the work orders for the APC equipment based on past operating experience and performance history. IPG updates the information in the Maintmizer system based on new operating experience and equipment history. For example, the frequency and scope of specific maintenance tasks may be modified, if IPG determines that these changes will maintain proper equipment operation in the future.

Table 2 presents the inspection, preventative maintenance, and repair scheduled for the APC devices. This preventative maintenance is subject to change, if IPG determines that less frequent maintenance or repair is warranted.

Table 2
Summary of Preventative Maintenance
Intertape Polymer Group, Inc. - Marysville, MI

I. INSPECTION AND ROUTINE MAINTENANCE - BAGHOUSES

This section presents the inspection and routine maintenance performed by IPG for their baghouses. Because the designs of the baghouses are identical, the inspection and maintenance performed by IPG for each unit is the same. With AQD approval, IPG may update and modify the scheduled maintenance based on operating experience.

Emission Unit/Flexible Group ID	Process Description	Control Device Description	Asset No.
EGCOMPOUNDING	Dry Stock Compounding Process - elastomers (natural or synthetic rubber) are mixed in a Banbury mixer with dry powder fillers to produce various dry stocks	Baghouse1- Fabric Filter collector - 2800 cfm	01
EGCOMPOUNDING	Dry Stock Compounding Process - elastomers (natural or synthetic rubber) are mixed in a Banbury mixer with dry powder fillers to produce various dry stocks	Baghouse2- Fabric Filter collector - 2800 cfm	02

Control Device	Frequency	Work Requested
Baghouse	Daily	Inspect baghouse for general cleanliness of the operation and for proper operation.
	Weekly	Record Magnehelic differential pressure data as required by the permit.
	2 Weeks	Inspect the baghouse visually, and check the condition of readily accessible externally visible parts for buildup of foreign matter, cracks, excessive wear, and structural integrity. Make repairs as necessary.
	4 Months	Clean and inspect dust collector for wear. Visually inspect filter bags and replace as needed.
	Annually	Physically inspect the baghouse pump/blower/fan motor(s) for vibration and noise. Report any notable vibration to the Shift Maintenance Supervisor for further investigation and repair. Replace filter bags.
	Annually	Clean and inspect impeller/blade for nicks, cracks, erosion, and any signs of wear and repair or replace as necessary.
	Annually	Check condition of bearings and lubricate as necessary.
	Annually	Check coupling(s) for slop, any sign of wear, and general condition. Replace or repair coupling(s) as needed.
	Annually	Check gearbox for wear, repair as necessary. Fill or change lubricant in gearbox as needed.
	Annually	Inspect drive gears, idler gears and drive belts for wear, checking for frayed edges, loose or missing teeth, and proper tensions.
	Annually	Clean out any buildup and residue and check the condition of duct/pipe, and repair or replace as necessary.

Section 9
Recordkeeping

IPG utilizes the Maintmizer preventative maintenance software program, as described in Section 6, "Work Order Systems," to keep records of maintenance work performed on APC equipment. The computerized records include the date the work was performed, the name of the mechanic or electrician who performed the work, a description of the work requested, and the corrective action taken.

Magnehelic readings and other recordkeeping data required by the ROP, such as filter replacement dates, are currently gathered either manually or electronically. As the electronic database systems are further developed, they will replace the manual recordkeeping. IPG may change the required content of the recordkeeping system.