

## 1.0 Introduction

- 1.1 Purpose:** *This procedure stipulates the operating terms and conditions as specified by the current federally enforceable state operating permit. Corrective actions for exceeding any operating condition are also specified. Corrective actions are not limited to those specified by this procedure.*
- 1.2 Scope:** *Operations of process lines that emit to any of these emissions units (Belts, Fabricoater, Aztec, UV Line, Nylon and PTFE lines) are restricted by permit conditions including the corrective actions required when emission units are not operating correctly. Emissions from the MBM, PFC-IX, and Antarsol Lines are limited by process equipment limitations.*

## 2.0 Summary of Emissions Units:

- 2.1 009: Mixing Room, DC-1 Bag house:** *High Efficiency Filter housing which is designed to be 98.6% efficient at retaining particulate matter that is 1 micron in size or larger.*
- 2.2 010: Regenerative Thermal Oxidizer #1:** *An organic vapor incinerator that is designed to at least 97% efficient at destroying volatile organic chemicals and hazardous air pollutants.*
- 2.3 012: MBM Production Line:** *A high temperature blown filter media production line which generates extremely low amounts of volatile organic compounds while melting polypropylene and polyethylene pellets.*
- 2.4 013: Six Natural Gas Fired Boilers:** *Exempt from permitting.*
- 2.5 Antarsol:** *An unregulated filter membrane post-treatment unit that generates Class 3 Stratospheric Ozone Depleting chemicals into the atmosphere.*
- 2.6 014: PFC-4 Nylon Line Scrubber:** *A vertical packed bed wet fume scrubber that is 99% efficient at removing formic acid vapors from the process exhaust air.*
- 2.7 015: PFC-4 Nylon Line Thermal Oxidizer:** *An organic liquid incinerator that is designed to at least 99.9% efficient at destroying formic acid liquid waste.*
- 2.8 016: Regenerative Thermal Oxidizer #2:** *An organic vapor incinerator that is designed to at least 97% efficient at destroying volatile organic chemicals and hazardous air pollutants.*
- 2.9 017: PFC-IX (PVM-AV) Production Line:** *A PVDF (polyvinylidene fluoride) membrane production line which generates low amounts of dilute low vapor pressure*

*volatile organic compounds within a saturated water vapor exhaust stream into the atmosphere.*

**3.0 General and Facility-wide Conditions and Controls.** The EHS Coordinator verifies compliance of items in this section monthly on the Data Form 21120APA:

- 3.1 Emissions' testing is conducted as specified by the Current Air Permit. The Air Permitting Section of the Florida Department of Environmental Protection is notified at least 15 days before testing. Results are submitted to the Florida Department of Environmental Protection within 45 days after testing. Special emissions' testing is conducted whenever a permit condition is suspected of being violated (e.g. air emissions complaints, increased visible emissions, conditions which may require corrective maintenance of emission control equipment). The EHS Coordinator schedules and coordinates Air Permit Testing.
- 3.2 The weekly DC-1 Bag house differential pressure readings will be recorded monthly on Data Form 21120APA.
- 3.3 No unit is permitted to cause, suffer, allow, or permit the discharge of air pollutants that cause or contribute to an objectionable odor.
- 3.4 All emissions units are not permitted to cause, let, suffer, or allow to be discharged any visible emission which is equal to or greater than that designated as Number 1 on the Ringelmann chart (20 percent opacity). Some units have lower standards as specified.
- 3.5 An annual operating report for air pollutant emitting facility is submitted to the Florida Department of Environmental Protection. The EHS Coordinator submits the report to the most senior corporate officer at the facility for signature and delivers the report.
- 3.6 Vapor capturing equipment is used whenever plant personnel are pumping, handling, processing, loading, and unloading any volatile organic compound or organic solvents.
- 3.7 All equipment, pipes, hoses, lids, and fittings are operated and maintained in such a way to minimize leaks, fugitive emissions, and spills of volatile organic compounds.
- 3.8 Reasonable precautions (such as good housekeeping) are used to prevent emissions of unconfined particulate matter.
- 3.9 Any significant threat to human health or the environment, problems, malfunctions, or exceedances are reported to the Department of Environmental Protection IMMEDIATELY after occurrence. The EHS Coordinator usually makes this report.

**4.0 Emissions Units and Conditions and Controls:**

**4.1 009: Mixing Room, DC-1 Bag house:**

- 4.1.1 **Capacity:** The maximum allowable operating rate is 228 pounds of solids per hour (which is the design capacity of the process) (the EHS Coordinator verifies compliance monthly when calculating emissions).



**4.1.2 Methods of operation:** The DC-1 pressure differential is maintained between 2 to 9 iWG. The meter is constantly recorded electronically. Maintenance records the pressure gage weekly and the EHS Coordinator audits all records monthly.

**4.1.3 Hours of operation:** This emissions unit operates continuously, i.e. 8,760 hours per year.

**4.1.4 Emission Limitations and Standards:**

- Visible emissions are limited to 5% opacity The EHS Coordinator verifies compliance monthly on the Data Form 21120APA.
- Particulate matter emissions do not exceed 0.21 tons per year. The EHS Coordinator verifies compliance monthly when calculating emissions.

**4.2 010: *Regenerative Thermal Oxidizer #1:***

**4.2.1 Capacity:** The incineration rate may not exceed 265 pounds per hour of volatile organic compounds for both RTO's combined. The inlet flow rate for RTO #1 may be no more than 18,000 SCFM. Compliance with this limit is demonstrated by the airflow tables in paragraph 5 below and in Tables 1 and 2. The EHS Coordinator verifies compliance daily on the Figure 1 data form. Abnormal situations are recorded on the Figure 2 data form.

**4.2.2 Methods of operation:** Natural Gas fires this emissions unit.

**4.2.3 Hours of operation:** This emissions unit operates continuously, i.e. 8,760 hours per year.

**4.2.4 Emission Limitations and Standards:**

- No visible emissions (<5% opacity) are allowed, except that visible emissions not exceeding 15% opacity are allowed for up to six minutes in any one-hour period.

## 4.2.5 Monitoring of Operations:

Process Inputs:

SLOW ENVIRONMENTAL CHAMBER SPEED									
BELT 3	TANK EXHAUST	BELT 2	FAB	BELT 4	BELT 5	MIX ROOM	AZTEC	UV	PTFE
1500	3000	1500	1250	4500	4500	2000	1000	1000	1040
TOTAL INPUT TO RTO'S						21,290 SCFM			
FAST ENVIRONMENTAL CHAMBER SPEED									
BELT 3	TANK EXHAUST	BELT 2	FAB	BELT 4	BELT 5	MIX ROOM	AZTEC	UV	PTFE
2250	3000	2250	2500	5250	5250	2000	1000	1000	1040
TOTAL INPUT TO RTO'S						25,540 SCFM			

- At least one of the RTO units is on-line at all times whenever plant processes are operational and generating VOC's. Automatic alarms are provided to the operator and the EHS Coordinator verifies compliance monthly on the Data Form 21120APA.
- The RTO #1 always operates at a minimum of 1500 degrees Fahrenheit. Automatic alarms are provided to the operator and the EHS Coordinator verifies compliance monthly on the Data Form 21120APA.
- The EHS Coordinator maintains copies of the chart recorder output.
- The RTO's design inlet airflow is never exceeded. When RTO #2 shuts down, it is restarted within 15 minutes. If RTO#2 cannot be restarted, then Table #2 is used to shutdown processes in order to maintain design air flow to RTO #1. A daily log (Figure #1) is kept to document compliance.
- The EHS Coordinator maintains records of the production lines showing:
  - 4.2.5..1** Amount of operation (product made)
  - 4.2.5..2** Production and chemical usage
  - 4.2.5..3** The VOC and HAP emissions are calculated and summarized by month and calendar year.



#### **4.3 012: MBM Production Line:**

**4.3.1 Capacity:** The process operation rate does not exceed 1,737 tons per 12-month rolling total of polymer pellets (which is the design capacity of the process) (the EHS Coordinator verifies compliance monthly when calculating emissions).

**4.3.2 Hours of operation:** This emissions unit operates continuously, i.e. 8,760 hours per year.

**4.3.3 Monitoring of Operations:** The EHS Coordinator maintains records of the following:

- Monthly and 12-consecutive month material processed (pounds of polymer pellets).
- A responsible company representative does certify monthly summaries accurate.

**4.4 *Six Natural Gas Fired Boilers and/or Gas Fired Ovens:*** *Listed as exempt units in the permit.*

**4.5 *Antarsol:*** *Removed from permit.*

#### **4.6 014: PFC-4 Nylon Line Scrubber:**

**4.6.1 Capacity:** The process line flow rate to the scrubber does not exceed 3,000 acfm (which is the design capacity of the process) (the EHS Coordinator verifies compliance daily when reviewing monitoring of operations by the operators).

**4.6.2 Methods of operation:** The scrubber operates at all times during the operation of PFC-4 process line (the PLC will not allow the Process Line to start until the Scrubber is running within specification), with a Formic Acid at design removal efficiency. Scrubber pressure drop is maintained between 1.5 and 2.5 iWG. Scrubber make-up water flow at 0.33 gpm or greater and the recycle water flow rate is maintained at 66 gpm or greater. The PLC constantly monitors these parameters and alarms when out of specification. The EHS Coordinator verifies compliance monthly on the Data Form 21120APA.

**4.6.3 Hours of operation:** This emissions unit operates continuously.

**4.6.4 Monitoring of Operations:** The Nylon Process PLC monitors Scrubber conditions continuously and alarms when conditions are exceeded. The EHS Coordinator has access to the PLC's records of the following:

- Scrubber pressure drop
- Scrubber water flow (both make-up and recycle)



#### **4.7 015: PFC-4 Nylon Line Thermal Oxidizer:**

**4.7.1 Capacity:** The process line flow rate to the thermal oxidizer does not exceed 30 gallons per hour of 30% formic acid by-product by weight. These parameters are monitored continuously by the PLC, which stops flow to the Oxidizer whenever limits are exceeded. The EHS Coordinator verifies compliance monthly on the Data Form 21120APA.

**4.7.2 Methods of operation:** During liquid process waste disposal, the thermal oxidizer operates at a minimum temperature of 1,675 degrees Fahrenheit, for a destruction efficiency of 99.9%. The EHS Coordinator verifies compliance monthly on the Data Form 21120APA.

**4.7.3 Hours of operation:** This emissions unit operates continuously.

**4.7.4 Emission Limitations and Standards:** No visible emissions are allowed, except that visible emissions not exceeding 15% opacity are allowed for up to six minutes in any one-hour period. The EHS Coordinator verifies compliance monthly on the Data Form 21120APA.

**4.7.5 Monitoring of Operations:** The Nylon Mix Room PLC monitors ignition chamber temperature continuously. It alarms and shuts down when conditions are exceeded.

#### **4.8 016: Regenerative Thermal Oxidizer #2:**

**4.8.1 Capacity:** The incineration rate may not exceed 265 pounds per hour of volatile organic compounds for both RTO's combined. The inlet flow rate for RTO #2 may be no more than 12,382 SCFM. Compliance with this limit is demonstrated by the airflow tables in paragraph 6 below and in Tables 1 and 2. The EHS Coordinator verifies compliance daily on the Figure 1 data form. Abnormal situations are recorded on the Figure 2 data form.

**4.8.2 Methods of operation:** This emissions unit is fired by natural gas only.

**4.8.3 Hours of operation:** This emissions unit operates continuously, i.e. 8,760 hours per year.

**4.8.4 Emission Limitations and Standards:**

**4.8.5** No visible emissions (<5% opacity) are allowed, except that visible emissions not exceeding 15% opacity are allowed for up to six minutes in any one-hour period

#### 4.8.6 Monitoring of Operations:

#### Process Inputs:

SLOW ENVIRONMENTAL CHAMBER SPEED									
BELT 3	TANK EXHAUST	BELT 2	FAB	BELT 4	BELT 5	MIX ROOM	AZTEC	UV	PTFE
1500	3000	1500	1250	4500	4500	2000	1000	1000	1000
TOTAL INPUT TO RTO'S						21,290 SCFM			
FAST ENVIRONMENTAL CHAMBER SPEED									
BELT 3	TANK EXHAUST	BELT 2	FAB	BELT 4	BELT 5	MIX ROOM	AZTEC	UV	PTFE
2250	3000	2250	2500	5250	5250	2000	1000	1000	1040
TOTAL INPUT TO RTO'S						25,540 SCFM			

- At least one of the RTO units is on-line at all times whenever plant processes are operational and generating VOC's. Automatic alarms are provided to the operator and the EHS Coordinator verifies compliance monthly on the Data Form 21120APA.
- The RTO #2 temperature is maintained at a minimum of 1500 degrees Fahrenheit. Automatic alarms are provided to the operator and the EHS Coordinator verifies compliance monthly on the Data Form 21120APA.
- Copies of the temperature output are maintained by the EHS Coordinator.
- The RTO's design inlet airflow is never exceeded. When RTO #1 shuts down, it is restarted within 15 minutes. If RTO #1 cannot be restarted, then Table #1 is used to shutdown processes in order to maintain design air flow to RTO #2. A daily log (Figure #1) is kept to document compliance.
- The EHS Coordinator does maintain records of the production lines showing:

**4.8.6..1** Amount of operation

**4.8.6..2** Production and chemical usage

**4.8.6..3** The VOC and HAP emissions are calculated and summarized by month and calendar year by the EHS Coordinator.



#### **4.9 017: PFC-IX Lines:**

**4.9.1 Capacity:** The maximum production rate is 400 Batches per 12-month rolling total.

**4.9.2 Hours of operation:** This emissions unit operates continuously, i.e. 8,760 hours per year.

**4.9.3 Monitoring of Operations:** The EHS Coordinator maintains records of the following:

- Monthly and 12-consecutive month material processed.
- A responsible company representative does certify monthly summaries accurate.

### **5.0 Corrective Actions for exceeding conditions:**

#### **5.1 009: Mixing Room, DC-1 Bag house:**

**5.1.1 If the DC-1 bag house is modified to exceed the maximum allowable operating rate of 228 pounds of solids per hour, perform the following**

- Do not operate the modified bag house.
- Have Maintenance Lockout the affected bag house.
- Suspend any Mix Room operations that require the use of the affected bag house.
- Inform the EHS Coordinator immediately!
- Schedule an Environmental Corrective Action Meeting with all management for the purpose of developing and implementing an action plan to prevent exceeding any limit.
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.



**5.1.2 If DC-1 pressure differentials exceed the 2 to 9 iWG.**

- **Verify that the gage is accurate.**
- If the gage is **NOT** indicating properly, then repair the fault promptly and return the indicating system to normal. **No further action is required.**
- If the gage is accurately indicating an out of specification condition, then proceed with the following corrective actions.
- **Shutdown DC-1.**
- *Have Maintenance Lockout DC-1 and replace the filters.*
- *Suspend any Mix Room operations that require the use of DC-1.*
- *Inform the EHS Coordinator as soon as practical.*
- *Schedule special testing in accordance with the Air Permit, if necessary.*
- *Call the Florida Department of Environmental Protection as directed in the Air Permit.*

**5.1.3 If any Emission Limitation is exceeded:**

- Shutdown the affected bag house.
- Have Maintenance Lockout the affected bag house and troubleshoot/repair the affected unit.
- Suspend any Mix Room operations that require the use of the affected bag house.
- Inform the EHS Coordinator immediately!
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.



## 5.2 010: Regenerative Thermal Oxidizer #1:

### 5.2.1 If the high temperature alarm is triggered:

- The person responding to the condition is to inform the EHS Coordinator, the Production Supervisor and Group Leader, and the Maintenance Supervisor and Group Leader immediately!
- Troubleshoot and correct the cause of the alarm as soon as possible. If fan speed is less than maximum (**60 Hz on the Allen-Bradley Controller see "RTO Fan Speed"**), then increasing its speed may prevent the shutdown. **DO NOT EXCEED** maximum normal fan speed.
- If the RTO shuts down and is restarted within 15 minutes, no further action is required.
- If the RTO has not been reset and restarted within 15 minutes, call the Production Supervisor and Group Leader and shutdown operations that generate VOC's into the RTO, **use the decision tree in Table 1**. Any flushing and cleaning with organic solvents must be completed within 45 minutes of the RTO's shutdown. Notify the EHS Coordinator, the EHS Manager, the Maintenance Supervisor, and the Facility Director. **Document incident on Figure #2.**

### 5.2.2 If the monthly calculation exceeds 80% of any limit stated in the above **Section 4.2** perform the following:

- Verify that the calculation is correct.
- Send email to the EHS Manager.
- Schedule an Environmental Corrective Action Meeting with all management for the purpose of developing and implementing an action plan to prevent exceeding any limit.
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

### 5.2.3 If the RTO shuts down and any operation generating VOC's is still running, perform the following:

- Inform the EHS Coordinator, the Production Supervisor and Group Leader, and the Maintenance Supervisor and Group Leader immediately!
- Troubleshoot and correct the cause of the shutdown as soon as possible.



- If the RTO is restarted within 15 minutes, no further action is required.
- If the RTO has not been reset and restarted within 15 minutes, call the Production Supervisor and Group Leader and shutdown operations that generate VOC's into the RTO, **use the decision tree in Table 1**. Any flushing and cleaning with organic solvents must be completed within 45 minutes of the RTO's shutdown. Notify the EHS Coordinator, the EHS Manager, the Maintenance Supervisor, and the Facility Director. **Document incident on Figure #2.**

#### **5.2.4 If the RTO temperature drops below 1500 degrees Fahrenheit.**

- Inform the EHS Coordinator, the Production Supervisor and Group Leader, and the Maintenance Supervisor and Group Leader immediately!
- Troubleshoot and correct the cause of the excursion as soon as possible.
- If the RTO temperature is restored above 1500 degrees within 15 minutes, no further action is required.
- If the RTO has not been reset and restarted within 15 minutes, call the Production Supervisor and Group Leader and shutdown operations that generate VOC's into the RTO, **use the decision tree in Table 1**. Any flushing and cleaning with organic solvents must be completed within 45 minutes of the RTO's shutdown. Notify the EHS Coordinator, the EHS Manager, the Maintenance Supervisor, and the Facility Director. **Document incident on Figure #2.**

#### **5.3 012: MBM Production Line:      *If the monthly calculation exceeds 80% of the process operation rate:***

**5.3.1** Verify that the calculation is correct.

**5.3.2** Send email to the Environmental, Health, and Safety Manager.

**5.3.3** Schedule an Environmental Corrective Action Meeting with all management for the purpose of developing and implementing an action plan to prevent exceeding any limit.

**5.3.4** Notify the Florida Department of Environmental Protection as directed in the Air Permit, if any limits are exceeded.

**5.3.5** No other corrective actions specified at this time.

#### **5.4 Six Natural Gas Fired Boilers and/or Gas Fired Ovens: *No corrective actions specified at this time.***



**5.5 *Antarsol: No corrective actions specified at this time.***

**5.6 *014: PFC-4 Nylon Line Scrubber:***

**5.6.1 If scrubber pressure drop falls to less than 1.5 iWG or exceeds 2.5 iWG:**

**5.6.2** Verify that the gage reading is correct. If the gage is faulty, then replace it and no further actions are required. If the condition can be corrected by opening duct flappers, then no further actions are required. If the gage reading is correct, then notify the Group Leader and proceed with the rest of the corrective actions.

- Suspend Nylon Line operations, if the condition cannot be corrected within 1 hour.
- Have Maintenance Lockout the Nylon Line and troubleshoot/repair the scrubber.
- Notify the EHS Coordinator immediately!
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

**5.6.3 If scrubber Make-up water flow falls to less than 0.33 gpm:**

- Verify that the gage reading is correct. If the gage is faulty, then replace it and no further actions are required. If the gage reading is correct, then notify the Group Leader and proceed with the rest of the corrective actions.
- Suspend Nylon Line operations, if the condition cannot be corrected within 1 hour.
- Have Maintenance Lockout the Nylon Line and troubleshoot/repair the scrubber.
- Notify the EHS Coordinator immediately!
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

**5.6.4 If scrubber recycle water flow falls to less than 66 gpm:**

- Verify that the gage reading is correct. If the gage is faulty, then replace it and no further actions are required. If the gage reading is correct, then notify the Group Leader and proceed with the rest of the corrective actions.



- Suspend Nylon Line operations, if the condition cannot be corrected within 1 hour.
- Have Maintenance Lockout the Nylon Line and troubleshoot/repair the scrubber.
- Notify the EHS Coordinator immediately!
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

### **5.7 015: PFC-4 Nylon Line Thermal Oxidizer:**

#### **5.7.1 If process line flow rate exceeds 30 gpm or formic acid exceeds 30% and the unit does not shutdown:**

- Verify that the gage reading is correct. If the gage is faulty, then replace it and no further actions are required. If the gage reading is correct, then notify the Group Leader and proceed with the rest of the corrective actions.
- Suspend Thermal Oxidizer operations immediately
- Have Maintenance Lockout the Oxidizer Tank and troubleshoot/repair the affected unit.
- Notify the EHS Coordinator immediately!
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

#### **5.7.2 If ignition temperature drops below 1675 degrees Fahrenheit:**

- Verify that the gage reading is correct.
- If the gage is faulty, then replace it and **no further actions are required.**
- If the gage reading is correct, then notify the Group Leader and proceed with the rest of the corrective actions.
- **Suspend Thermal Oxidizer operations immediately**
- Have Maintenance Lockout the Oxidizer Tank and troubleshoot/repair the affected unit.
- Notify the EHS Coordinator immediately!
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

### **5.8 016: Regenerative Thermal Oxidizer #2:**



**5.8.1 If the high temperature alarm is triggered:**

- The person responding to the condition is to inform the EHS Coordinator, the Production Supervisor and Group Leader, and the Maintenance Supervisor and Group Leader immediately!
- Troubleshoot and correct the cause of the alarm as soon as possible. If fan speed is less than maximum (**60 Hz on the Allen-Bradley Controller see "RTO Fan Speed"**), then increasing its speed may prevent the shutdown. DO NOT EXCEED maximum normal fan speed
- If the RTO shuts down and is restarted within 15 minutes, no further action is required.
- If the RTO has not been reset and restarted within 15 minutes, call the Production Supervisor and Group Leader and shutdown operations that generate VOC's into the RTO, **use the decision tree in Table 2**. Any flushing and cleaning with organic solvents must be completed within 45 minutes of the RTO's shutdown. Notify the EHS Coordinator, the EHS Manager, the Maintenance Supervisor, and the Facility Director. **Document incident on Figure #2.**

**5.8.2 If the monthly calculation exceeds 80% of any limit stated in the above Section 4.8, perform the following:**

- Verify that the calculation is correct.
- Send email to the EHS Manager.
- Schedule an Environmental Corrective Action Meeting with all management for the purpose of developing and implementing an action plan to prevent exceeding any limit.
- Schedule special testing in accordance with the Air Permit, if necessary.
- Call the Florida Department of Environmental Protection as directed in the Air Permit.

**5.8.3 If the RTO shuts down and any operation generating VOC's is still running perform the following:**

- Inform the EHS Coordinator, the Production Supervisor and Group Leader, and the Maintenance Supervisor and Group Leader immediately!
- Troubleshoot and correct the cause of the shutdown as soon as possible.
- If the RTO is restarted within 15 minutes, no further action is required.
- If the RTO has not been reset and restarted within 15 minutes, call the Production Supervisor and Group Leader and shutdown operations that

generate VOC's into the RTO, **use the decision tree in Table 2.** Any flushing and cleaning with organic solvents must be completed within 45 minutes of the RTO's shutdown. Notify the EHS Coordinator, the EHS Manager, the Maintenance Supervisor, and the Facility Director. **Document incident on Figure #2.**

#### **5.8.4 If the RTO temperature drops below 1500 degrees Fahrenheit.**

- Inform the EHS Coordinator, the Production Supervisor and Group Leader, and the Maintenance Supervisor and Group Leader immediately!
- Troubleshoot and correct the cause of the excursion as soon as possible.
- If the RTO temperature is restored above 1500 degrees within 15 minutes, no further action is required.
- If the RTO has not been reset and restarted within 15 minutes, call the Production Supervisor and Group Leader and shutdown operations that generate VOC's into the RTO, **use the decision tree in Table 2.** Any flushing and cleaning with organic solvents must be completed within 45 minutes of the RTO's shutdown. Notify the EHS Coordinator, the EHS Manager, the Maintenance Supervisor, and the Facility Director. **Document incident on Figure #2.**

#### **5.9 017: PFC-IX (PVM-AV) Production Line:      *If the monthly calculation exceeds 80% of the process operation rate:***

**5.9.1** Verify that the calculation is correct.

**5.9.2** Send email to the Environmental, Health, and Safety Manager.

**5.9.3** Schedule an Environmental Corrective Action Meeting with all management for the purpose of developing and implementing an action plan to prevent exceeding any limit.

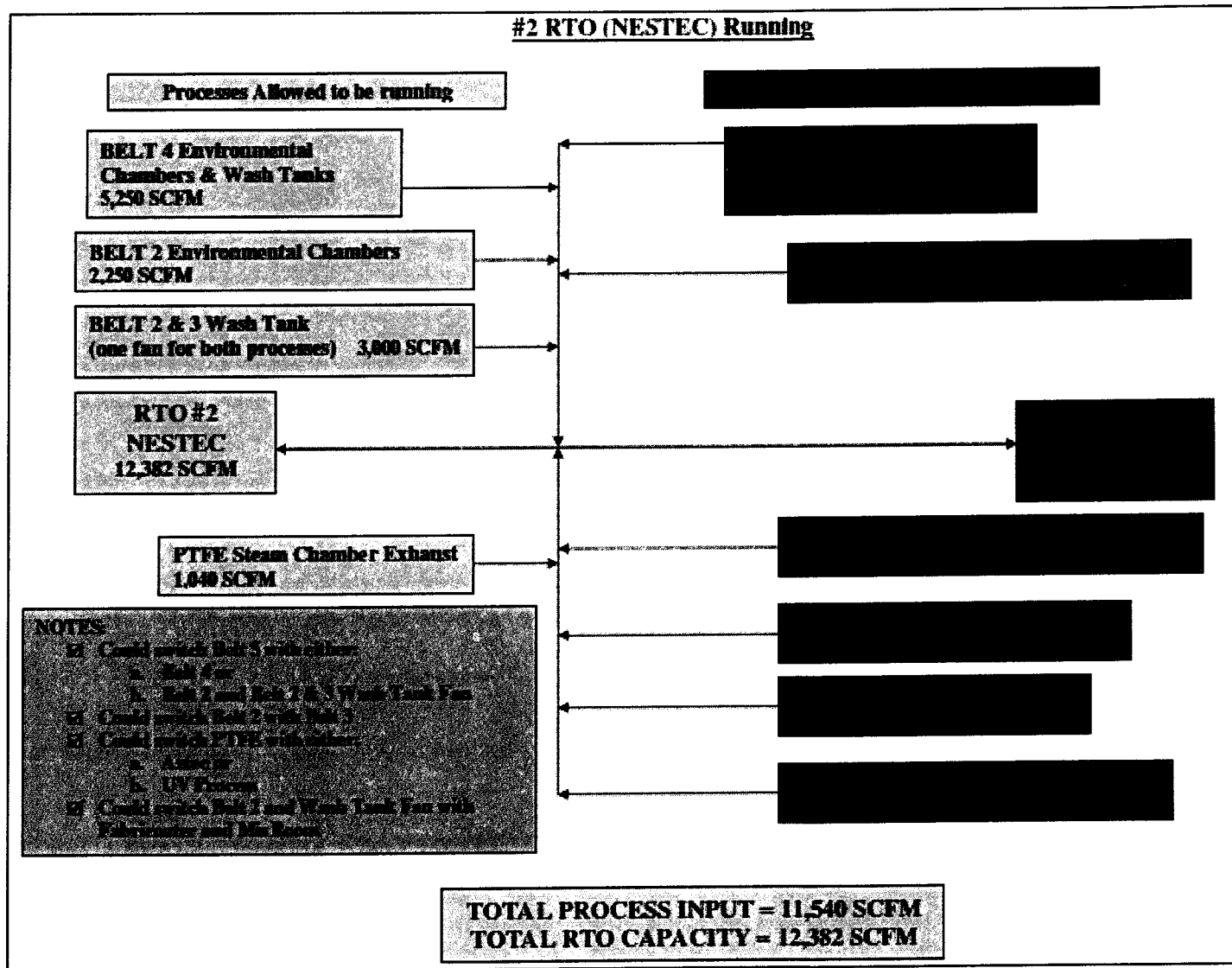
**5.9.4** Notify the Florida Department of Environmental Protection as directed in the Air Permit, if any limits are exceeded.

**5.9.5** No other corrective actions specified at this time.

**6.0 Audit:** The EHS Coordinator or alternate does perform a monthly audit of the facility ensuring compliance with the above air permit requirements using Data Form 21120APA.

## RTO Decision Tables and Figures:

**Table 1:** Allowed Operations When RTO #1 Shuts down  
(Note: shutdown the equipment in the red boxes)





**Table 2: Allowed Operations When RTO #2 Shuts down**  
(Note: shutdown the equipment in the red boxes)

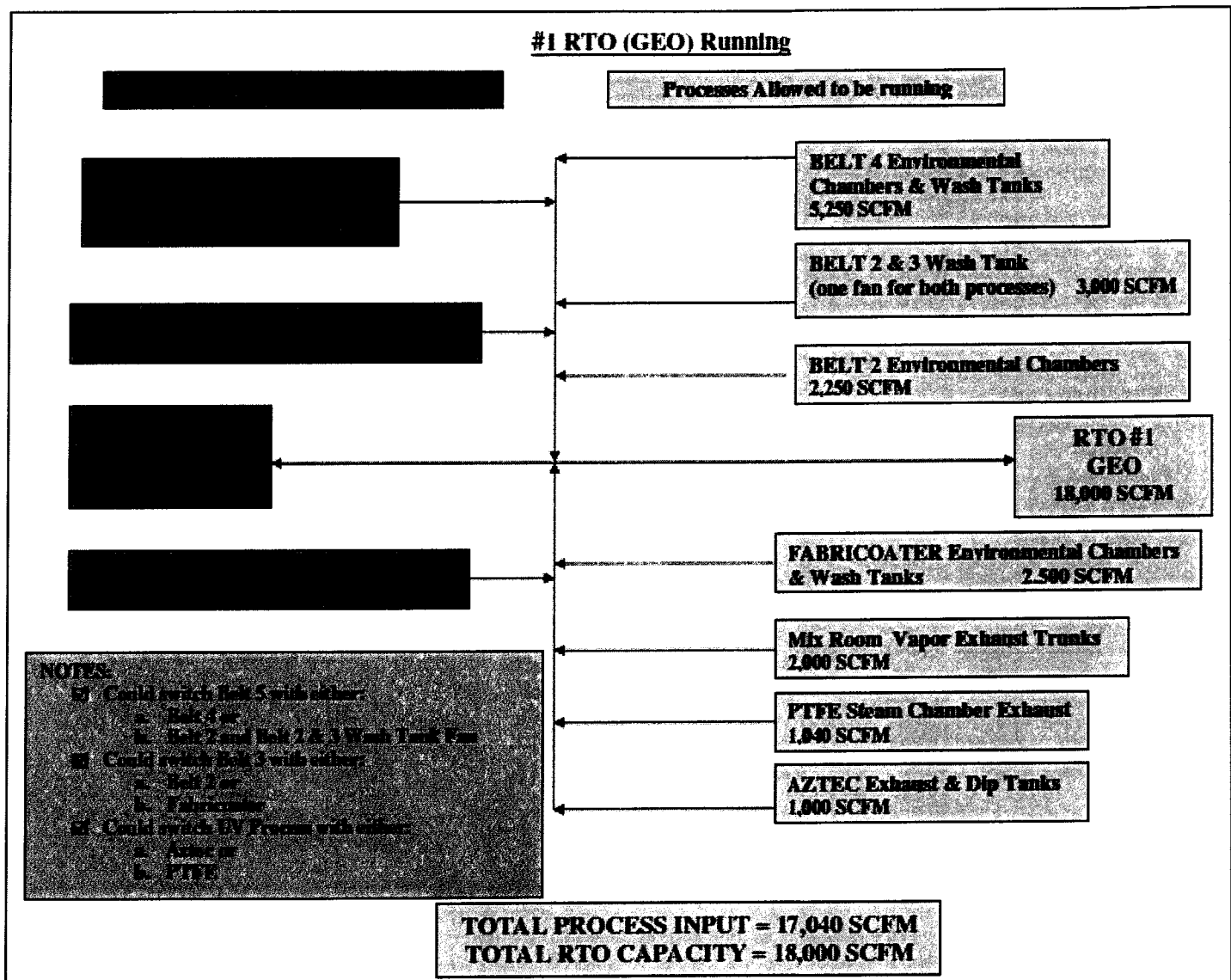


Figure 1: Daily Log

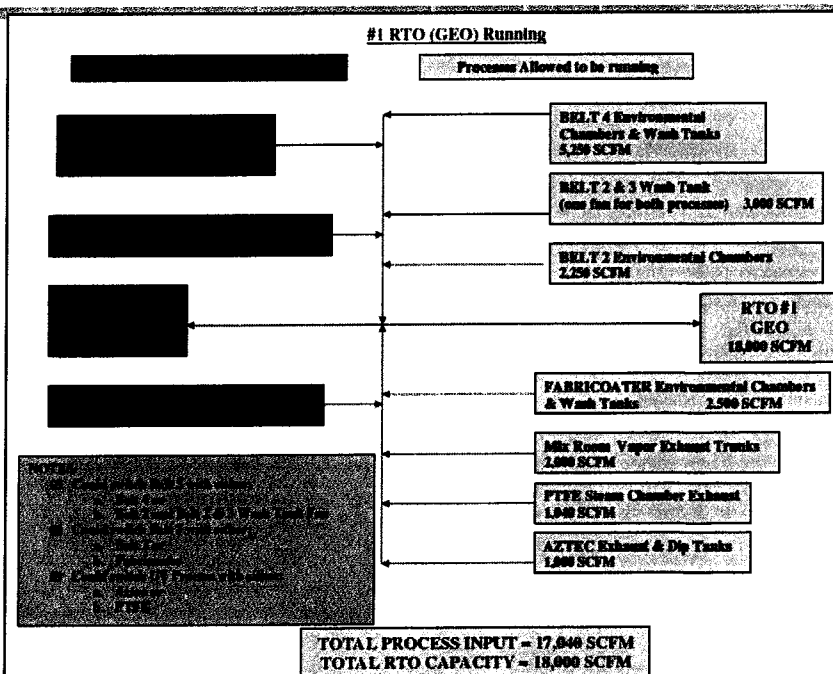
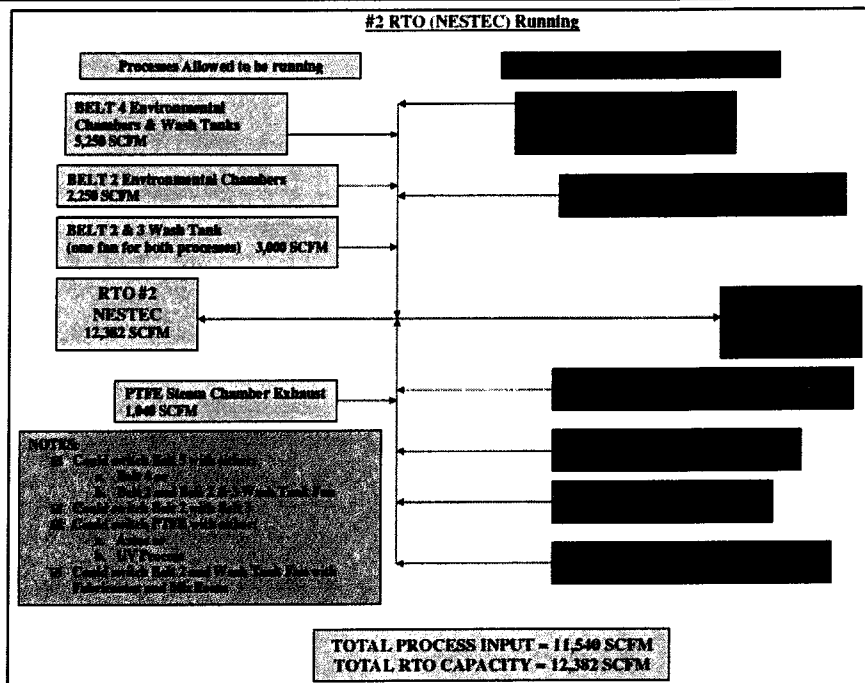
Date / Time: \_\_\_\_\_ / \_\_\_\_\_

RTO Configuration: \_\_\_\_\_

**CROSS OUT THE PROCESSES THAT ARE SHUTDOWN FOR THE WHOLE DAY:**

Processes going to Both RTO's	Belt 3	Tank Exhaust	Belt 2	Fab	Belt 4	Belt 5	Mix Room	Aztec	UV	PTFE
Combination #	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

**ACCEPTABLE RUNNING PROCESS COMBINATIONS**



**Figure 2: Abnormal Event Log**

<p><b>Date / Time:</b> _____ / _____</p> <p><b>Which RTO is Running?</b> _____</p> <p><b>NOTES:</b> 1. FILL OUT SEPARATE SHEET FOR EACH DOWNTIME EVENT LASTING MORE THAN 15 MINUTES 2. FILL OUT SEPARATE SHEET IF COMBINATION IS CHANGED BEFORE THE 2<sup>ND</sup> RTO IS RESTORED TO SERVICE</p> <p><b>Abnormal Event Description:</b></p>	<p><b>MFG:</b></p> <p><b>MAINT:</b></p>
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**Circle the Running Equipment**

```

graph LR
    subgraph Left_Equipment
        B4[BELT 4 Environmental Chambers & Wash Tanks  
5,250 SCFM]
        B2[BELT 2 Environmental Chambers  
2,250 SCFM]
        B3[BELT 3 Environmental Chambers  
2,250 SCFM]
        MR[Mix Room Vapor Exhaust Trunks  
2,000 SCFM]
        UV[UV PROCESS Exhaust & Wash Tanks  
1,000 SCFM]
        AZ[AZTEC Exhaust & Dip Tanks  
1,000 SCFM]
        PTFE[PTFE Steam Chamber Exhaust  
1,000 SCFM]
        FAB[FABRICOATER Environmental Chambers & Wash Tanks  
2,500 SCFM]
    end

    subgraph Right_Equipment
        B5[BELT 5 Environmental Chambers & Wash Tanks  
5,250 SCFM]
        W23[BELT 2 & 3 Wash Tank  
(one fan for both processes) 3,000 SCFM]
        R1[RTO #1  
GEO  
18,000 SCFM]
        R2[RTO #2  
NESTEC  
12,382 SCFM]
    end

    Duct(( ))
    B4 --> Duct
    B2 --> Duct
    B3 --> Duct
    MR --> Duct
    UV --> Duct
    AZ --> Duct
    PTFE --> Duct
    FAB --> Duct
    Duct --> B5
    Duct --> W23
    Duct --> R1
    Duct --> R2
    
```