

# **JACKSONVILLE ENVIRONMENTAL PROTECTION BOARD**

## **RULE 5 CONTROL OF TRS AND VOC EMISSIONS FROM CRUDE SULFATE TURPENTINE PROCESSING FACILITIES**

February 28, 2003

**RULE OF THE  
JACKSONVILLE ENVIRONMENTAL PROTECTION BOARD  
RULE 5  
CONTROL OF TRS AND VOC EMISSIONS  
FROM  
CRUDE SULFATE TURPENTINE PROCESSING FACILITIES**

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**PART I  
GENERAL PROVISIONS**

**5.101 Applicability**

The provisions of this rule are applicable to all equipment and processes within crude sulfate turpentine processing facilities which process, handle or store any regulated substances as defined in Section 5.102 of this rule. Any emission made in compliance with the requirements of this rule shall not be deemed an objectionable odor. Emissions from equipment and processes not specifically regulated or not in compliance with the above mentioned requirements may be deemed an objectionable odor pursuant to Section 376.104(d) Ordinance Code.

**5.102 Definitions**

- A. "AQD" means the City of Jacksonville Air Quality Division.
- B. "By-Pass Event" means the release to the atmosphere of any gases requiring thermal oxidation under this rule.
- C. "Condensate Stripping System" means a column and associated condensers, used to strip organic fractions from wastewater streams using air or steam.
- D. "Crude Sulfate Turpentine (CST)" is the turpentine recovered as a by-product from sulfate "kraft" pulp mills.
- E. "CST Processing Facility" means any stationary source which processes crude sulfate turpentine.
- F. "Equipment" means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve and flange or other connector in TRS/VOC service and any other devices or subsystems which are part of the CST processing facility.
- G. "Foul Wastewater" means condensate or wastewater separated from CST or from those intermediate products of CST requiring further TRS removal, as a result of storing, handling or processing of those substances. This includes, but is not limited to, condensed water received along with CST in rail or truck tank cars, water separated from CST during fractionation and water condensed in the non-condensable gas collection system connected to a thermal oxidation system.

- H. "Hotwell" means any sump receiving condensate from condensers used in the CST processing operation.
- I. "In Gaseous Service" means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.
- J. "In Liquid Service" means that the piece of equipment contains process fluid that is in the liquid state at operating conditions.
- K. "Masking Agent" means a chemical agent used to alter odor quality by making a malodorant unrecognizable, while not effecting a reduction in perceived odor intensity.
- L. "Pressure Relief Device" means any device used to relieve gaseous pressure to the atmosphere during upset conditions.
- M. "Process Unit Shutdown" means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operation procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment without stopping production is not a process unit shutdown.
- N. "Process Unit" means components assembled to process CST into its product fractions.
- O. "Regulated Substances" are crude sulfate turpentine (CST), those intermediate products from CST requiring TRS removal in further processing, the TRS - rich organic liquid, vapor and TRS fouled wastewater streams resulting from the storing, handling and processing of those substances and any liquid or gaseous substances produced by blending with the preceding substances.
- P. "Repaired" means that equipment is adjusted or otherwise altered, in order to eliminate a leak as shown by one of the following: an instrument-detected leak (Method 21), indication of visible liquids or indication by a sensor that a seal or barrier fluid system has failed.
- Q. "Thermal Oxidation" means, for the purposes of this rule, thermal destruction of TRS and VOC in an incinerator or boiler.
- R. "Total Reduced Sulfur (TRS)" means the sum of the sulfur compounds hydrogen sulfide ( $H_2S$ ), methyl mercaptan, dimethyl sulfide (DMS) and dimethyl disulfide.
- S. "Visible Liquids" means any visible leakage from the seal including dripping, spraying, misting, clouding and ice formation.
- T. "Volatile Organic Compounds (VOCs)" means, for the purpose of this rule, any organic compound which participates in atmospheric photochemical reactions, that is, any organic compound except those that have been designated by the EPA administrator as having negligible photochemical reactivity; and which is

present in any equipment or process which handles, stores or processes any regulated substance.

### **5.103 General Compliance Requirements**

Control of TRS and VOC emissions shall be attained through the use of good process operations, a leak detection program and thorough housekeeping and employee training. Control requirements, monitoring and inspection requirements, test methods and recordkeeping and reporting requirements are presented separately for each control strategy. Presented first is the control of process operations, second the leak detection program and third the housekeeping/training program. Compliance with Parts II, III and IV will be determined by review of records and reports, review of performance test results and inspection using the methods and procedures specified in Sections 5.301 and 5.302.

### **5.104 Enforcement**

This rule shall be enforced by the AQD in accordance with the provisions of Chapter 360 and 362, Ordinance Code.

### **5.105 Investigations - Right of Entry**

Inspections and investigations made to determine compliance with the provisions of this rule shall be made in accordance with the provisions of Section 360.108, Ordinance Code and Board Rule 1, Part VIII.

### **5.106 Penalties and Injunctive Relief**

Violations of this rule shall be punishable by civil penalties specified in Section 376.111, Ordinance Code and to injunctive relief as provided in Section 360.407, Ordinance Code.

## PART II PROCESS OPERATIONS CONTROL

### 5.201 Control Requirements

#### A. CST Unloading

1. Emissions from railroad tank car or truck domes and vents shall be captured upon opening and controlled using a wet scrubber, solid state adsorption or thermal oxidation. In lieu of capture and control described above, emissions may be controlled by use of vent valves or dome hatch covers designed to ensure an inward flow of air during tank car or truck unloading.
2. Liquid unloading lines shall be of dry disconnect design or shall be capped to prevent liquid loss when disconnected.
3. Railroad tank car/truck unloading areas shall be paved and bermed to control liquid runoff.
4. Liquid contained between the railroad tank car/truck internal unloading valve and external pipe cap shall be drained and disposed of as foul wastewater or returned to the process.

#### B. Liquid Storage

Emissions from tanks storing liquid regulated substances other than foul wastewater shall be thermally oxidized.

#### C. Stripping or Fractionation Columns

1. All vapors and organic liquid waste streams from CST stripping columns shall be captured and thermally oxidized.
2. Overhead gases from fractionation columns processing regulated substances shall be captured and thermally oxidized.
3. The vacuum used in CST stripping columns and fractionation columns processing regulated substances shall be produced by mechanical methods. Steams ejectors shall not be used for production of vacuum for distillation columns where a foul wastewater is produced.

#### D. Foul Wastewater Systems

1. Vapor emissions from tanks storing or receiving foul wastewater shall be thermally oxidized or controlled using scrubbers or solid state adsorption.

2. Foul wastewater shall be segregated from the process wastewater streams and processed separately.
  3. Foul wastewater shall be transferred through closed piping. Manholes and hotwells shall be covered and head space vented to a vapor collection system for capture or destruction.
  4. Foul wastewater shall be treated using an oxidizing agent such as sodium hypochlorite or hydrogen peroxide prior to discharge to the plant waste treatment system or may be treated by air stripping or steam stripping to remove TRS. Vapor emissions from stripping systems shall be captured and incinerated.
- E. Thermal Oxidation Systems (Boilers and Incinerators)
1. TRS emissions from thermal oxidation systems burning regulated substances shall be limited to 1.0 ppm (v/v). Test methods shall conform to Section 5.202.
  2. A backup thermal oxidation system capable of meeting the emission limits of Section 5.201E.1. shall be provided for destruction of TRS gases in the event of outage of the primary oxidation system. Vapors shall be switched immediately to the backup thermal oxidizer, unless process operations generating the vapors are immediately ceased.

## **5.202 Test Methods and Procedures**

- A. Thermal Oxidation Systems
1. Testing to verify the TRS emission levels specified in Section 5.201 E. above shall be done at least once a year using U.S. Environmental Protection Agency (EPA) reference Method 16, Code of Federal Regulations (CFR) Title 40, Part 60, Appendix A.
  2. Carbon Monoxide (CO) continuous emission monitors (CEMs) may be used as a surrogate method to demonstrate compliance, in lieu of the Method 16 test above. If CO CEMs are used to demonstrate compliance, an initial test must be performed using EPA Method 16 and CO monitoring which documents that TRS emissions are less than 1 ppm at a CO level of 100 ppm (corrected to 7% oxygen, dry basis). Where multiple boilers of similar design are used for thermal oxidation, the test to demonstrate compliance at 100 ppm CO need be done on one boiler only.
  3. Approval must be obtained from AQD for the CO monitoring method.
  4. If CO monitoring is used to demonstrate compliance, exceedances of the surrogate standard shall be calculated on a 60 minute rolling average.

5. A thermal oxidizer may operate with a surrogate CO standard higher than 100 ppm, provided that
  - a. the thermal oxidizer is subject to performance standards for burning hazardous waste, 40 CFR, Part 264 or 266 and
  - b. the owner establishes an alternative CO standard higher than 100 ppm pursuant to the tier II provisions of 40 CFR 264.343 or 40 CFR 266.104 and
  - c. the owner establishes, pursuant to Section 5.202 A.2. above, that the TRS emission limit of 1 ppm is met while operating at the higher alternative CO level.

**B. Scrubbers and Adsorbers**

1. Test methods and procedures to ensure optimum performance of scrubbers and adsorption units shall be defined by the owner in the Odor Abatement Manual required by Section 5.402 below.
2. Methods may include, but are not limited to, testing of chemical strength for all scrubbers using chemical oxidizing agents. Frequencies of tests and of changing or recharging of the scrubbing or adsorption medium must be included and must be adequate to ensure continuous optimum odor reduction.

### **5.203 Recordkeeping Requirements**

**A. Thermal Oxidation Systems**

1. The following items shall be monitored and recorded for vapor incinerators:
  - a. combustion temperature (continuous).
  - b. carbon monoxide (continuous), when used for compliance determination.
  - c. bypass events.
2. The following items shall be monitored and recorded for boilers:
  - a. carbon monoxide (continuous), when used for compliance determination.
  - b. daily boiler log, including but not limited to, unit shutdowns and bypass events.
3. For thermal oxidizers burning hazardous waste, all combustion parameters monitored pursuant to the requirements of 40 CFR 264.347 or



40 CFR 266.102 for incinerators or industrial boilers and furnaces, respectively, shall be recorded.

B. Scrubbers and Adsorbers

1. Records shall be kept of each test of chemical strength of scrubber tanks, as well as all instances of changing or recharging of the scrubbing or adsorption media.
2. Details of any odorous emissions shall be recorded.

C. All records required by this part shall be retained for at least 2 years and shall be made available for inspection to the AQD upon request.

## **5.204 Reporting Requirements**

A. Thermal Oxidation Systems

1. Tests required in Section 5.202 A. above shall be reported to AQD not later than 45 days following completion of the test. At least 15 days advance notice shall be given to AQD prior to any test, in order for AQD to observe the test if so desired.
2. If CO CEMs are used, a quarterly report shall be submitted to AQD not later than 30 days after the end of the calendar quarter. Each quarterly report shall list all exceedances of the CO surrogate standard, the date, time and duration of the exceedance, the cause of the exceedance and remedial action taken to correct the exceedance. Any by-pass events shall be reported to AQD on the quarterly report. If no exceedance occurred during the calendar quarter, the report shall so state.

B. Scrubbers and Adsorbers

Scrubber and adsorber test reports shall be submitted to AQD upon request.

**PART III**  
**LEAK DETECTION PROGRAM**

**5.301 Control Requirements**

A. Equipment in Liquid Service

1. Pump Seals

- a. Each pump seal shall be checked by visual inspection daily for indications of visible liquids.
- b. If there are indications of visible liquids around the pump seal, a leak is detected.
- c. When a leak is detected, it shall be repaired as soon as practicable, but not later than five (5) days after the leak is found.

2. Sampling Valves

- a. Each sampling valve used to collect liquid samples shall be checked by visual inspection monthly for indication of visible liquids. The system shall also be checked after each sampling event.
- b. If there are indications of visible liquids around the valve or line, a leak is detected.
- c. Repairs shall be effected in accordance with Section 5.301 A.1.c. above.

3. Open-ended Valves or Lines

- a. The valves or lines shall be checked by visual inspection monthly for indication of visible liquids.
- b. If there are indications of visible liquids around the valve or line, a leak is detected.
- c. Each open-ended valve or line shall be equipped with a cap, blind flange, plug or a second valve. This provision does not apply to safety relief devices.
- d. The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

- e. Repairs shall be effected in accordance with Section 5.301.A.1.c. above.
- 4. Any liquid discharge from a safety relief device in liquid service must be collected in a catch basin or other receptacle and not spilled on the ground or be discharged to the environment.

B. Equipment in Gaseous Service

1. Pressure Relief Devices

- a. Each device shall be monitored weekly to detect leaks by methods specified in Section 5.302 below. Monitoring shall not be done during a pressure release event.
- b. If an instrument reading of 1,000 ppm or greater is measured, a leak is detected.
- c. When a leak is detected, it shall be repaired as soon as practicable, but not later than five (5) days after the leak is found. Monitoring shall be conducted immediately after placing the equipment in service following the repair, to ensure no leak is detected.

2. Open-ended Valves or Lines

- a. The valves or lines shall be monitored monthly to detect leaks by methods specified in Section 5.302 below.
- b. Each open-ended valve or line shall be equipped with a cap, blind flange, plug or a second valve.
- c. The cap, blind flange, plug or second valve shall seal the open end at all times except during operations requiring flow through the open-ended valve or line.
- d. If an instrument reading of 1,000 ppm or greater is measured, a leak is detected.
- e. Repairs shall be effected in accordance with Section 5.301.B.1.c. above.

3. Pressurized Valves

- a. Each valve shall be monitored monthly to detect leaks by methods specified in Section 5.302 below.
- b. If an instrument reading of 1,000 ppm or greater is measured, a leak is detected.

- c. Repairs shall be effected in accordance with Section 5.301.B.1.c. above.

4. Blowers and Pressurized Sections of Vacuum Pumps

- a. Each piece of equipment shall be monitored weekly to detect leaks by methods specified in Section 5.302.
- b. If an instrument reading of 1,000 ppm or greater is measured, a leak is detected.
- c. Repairs shall be effected in accordance with Section 5.301.B.1.c. above.

C. Equipment Under Vacuum

Any equipment operated under vacuum shall not be subject to monitoring requirements as long as the equipment remains under constant vacuum.

D. Delay of Repair

- 1. Delay of repair of equipment for which leaks have been detected will be allowed upon approval by AQD if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown or process turnaround.
- 2. Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in TRS service.
- 3. Delay of repair for equipment will be allowed upon approval by AQD if the owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair.
- 4. Delay of repair for pumps will be allowed if:
  - a. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system and
  - b. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
- 5. Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
- 6. Any major leak of such magnitude as to cause a detectable odor off of the

plant property must be repaired without delay.

E. Alternative Monitoring Schedule

1. After at least three complete monthly checks, the company may request in writing to the AQD that the monitoring schedule be revised. This request shall include data that have been developed to justify any modification in the monitoring schedule.
2. If AQD determines that there is an excessive number of leaks in any given process area, AQD may require an increase in the frequency of monitoring for that process area of the plant.
3. The AQD may approve an alternate monitoring method if the company can demonstrate that the alternate monitoring method is equivalent to the method required by this rule. Any request for an alternate monitoring method must be made in writing to the AQD.

### **5.302 Test Methods and Procedures**

U.S. Environmental Protection Agency Method 21, (40 CFR 60, Appendix A) shall be used to determine the presence of leaking sources. The reference compound shall be isobutylene and the calibration gas shall be a mixture of zero air and isobutylene at a concentration of about, but less than 1,000 ppm. The formation of bubbles in a soap solution, pursuant to Section 4.3.3, Method 21, shall prima facie constitute a leak.

### **5.303 Recordkeeping Requirements**

- A. Each owner or operator subject to the provisions of this rule shall comply with the recordkeeping requirements of this section.
- B. Each component subject to periodic leak detection inspection under Section 5.301 above shall be identified by an identification number permanently attached to the component.
- C. When a leak is detected as specified in Section 5.301 the following requirements apply:
  1. Upon detection of a leaking component, a weather proof and readily visible identification tag marked with the identification number and the date the leak was located shall be attached to the leaking equipment.
  2. The identification on equipment may be removed after it has been repaired.
- D. When each leak is detected, the following information shall be kept for 2 years in a readily accessible location and be made available for review by authorized representatives of the AQD:

1. The name of the process unit where the component is located.
  2. The type of component (e.g., valve or seal).
  3. The tag number of the component.
  4. The date on which a leaking component is discovered.
  5. The date on which a leaking component is repaired.
  6. The data and instrument reading of the recheck procedure after a leaking component is repaired.
  7. Those leaks that cannot be repaired until shutdown.
- E. A record of the calibration of the monitoring instrument (Method 21) for each day of monitoring shall be retained for 2 years and shall be made available to AQD upon request.

#### **5.304 Reporting Requirements**

- A. Each owner or operator subject to the provisions of this rule shall submit semiannual reports to the AQD in accordance with the compliance schedule in Part V for this rule.
- B. The initial report shall contain the following:
1. Process unit identification.
  2. Numbers of valves, pumps and blowers subject to the leak detection requirements of this part.
- C. The semiannual reports shall contain the following:
1. Numbers of valves, pumps and blowers for which leaks were detected.
  2. Facts that explain each delay of repair and why process unit shutdown was technically infeasible.
  3. Dates of process unit shutdown which occurred during the reporting period.

**PART IV**  
**HOUSEKEEPING, TRAINING, MAINTENANCE AND TANK CLEANING**

**5.401 General Housekeeping and Spills**

- A. Good housekeeping and plant operating procedures shall be used which minimize the potential for spills of regulated substances and which otherwise reduce the potential for TRS and VOC fugitive emissions.
- B. Spills
  - 1. Spills of liquid regulated substances shall be treated with an oxidizing chemical to prevent evaporation of TRS gases or shall be treated by use of an odor neutralizer which chemically modifies the TRS gases which evaporate. Spills shall be neutralized within 5 minutes of discovery and the area flushed to wastewater treatment. Masking agents may be used in addition to these requirements, however, masking agents shall not be used as a substitute for oxidizing chemicals or odor neutralizers.
  - 2. All spills of liquid regulated substances of one quart or greater shall be recorded in a spill log. The record of each spill shall include:
    - a. Time of spill and/or discovery
    - b. Location
    - c. Reason for spill
    - d. Estimated volume
    - e. Time of cleanup
    - f. Cleanup methods used
  - 3. Spills of 10 gallons or greater shall be reported to AQD immediately by phone. A written report with details of the spill and cleanup operations shall be submitted within 5 days. A report containing records of spills as specified in Section 5.401.B.2. shall be submitted to AQD quarterly. Reported made pursuant to this section shall not relieve the responsible person of any other spill reporting requirements pursuant to other Federal, State or local laws.
- C. A visual housekeeping inspection of all plant areas where regulated substances are processed, handled or stored, shall be conducted not less often than once each day. Daily reports shall be made and any deficiencies noted shall be recorded on appropriate checklists developed for this purpose. Particular attention shall be given to housekeeping, container closure, visible exposure of malodorous substances and the sensory detection of strong odor. Inspection reports shall be reviewed daily by the plant manager or his designee. Reports of

daily inspections shall be retained for 1 year and made available to AQD for inspection upon request.

#### **5.402 Odor Abatement Manual**

- A. An odor abatement manual shall be written and kept up to date. The manual shall explain all TRS/VOC odor abatement systems and their proper operations, spills cleanup procedures, equipment cleaning procedures, inspection procedures, instructions on required recordkeeping and all other procedures necessary to comply with the requirements of this rule.
- B. The odor abatement manual shall be reviewed for completeness and currentness of information at least annually and shall be updated as needed.
- C. The odor abatement manual shall include diagrams to identify potential points of TRS emissions. At least the following diagrams shall be included:
  - 1. TRS Vapor Collection System.

The diagram shall show the stripping and fractionation towers, storage tanks and any other process equipment from which TRS emissions are collected and incinerated. The diagram shall also show all thermal oxidizers and connective piping.
  - 2. Wastewater Collection and Treatment System.

The diagram shall show sumps used to collect foul wastewater, piping and pumps used to route the foul water to the foul wastewater treatment facility, oil/water separators and any associated scrubbers or adsorbers used for odor control.
  - 3. Miscellaneous Emission Points

The diagram shall include loading and unloading areas, portable tank cleaning station and any other sources covered by this rule and not shown in other diagrams.
- D. The Manual shall include an organization chart and a detailed description of the duties and responsibilities of those managerial and supervisory positions directly responsible for the implementation of this rule. The following duties should be included:
  - 1. Liaison with local and State regulatory agencies.
  - 2. Development and maintenance of the Odor Abatement Manual.
  - 3. Development of and conduct of preventative maintenance program.
  - 4. Scheduling and conduct of all inspections and tests required by this rule.



5. Development and maintenance of all records and reports required by this rule.
6. Maintenance of spare parts critical to TRS emission control.
7. Development of and conduct of the odor training program for new and existing employees.
8. Any operational and oversight responsibilities assigned to shift superintendents and area supervisors necessary to fulfill the requirement of this rule.

#### **5.403 Employee Odor Abatement Training**

- A. All employees who work in areas where regulated substances are stored, handled or processed shall receive specialized training in odor abatement for the specific plant processes and equipment for which they are responsible. The odor abatement manual required in Section 5.402 above shall be used in the training program.
- B. Annual refresher training shall be conducted. All training received by employees shall be recorded. Those records of employee training shall be kept for 2 years and made available for review by AQD on request.

#### **5.404 Preventative Maintenance Plan**

A Preventative Maintenance Plan is required to insure the integrity and proper operation of the following items:

- A. TRS Vapor Collection System

The Plan shall include the following items at a minimum:

1. Periodic visual inspection.
  2. Draft instrumentation at pickup points.
  3. Leak checks at pickup points.
  4. Provision for drainage and collection of condensed liquid.
  5. Assessment of system effectiveness under maximum volume generation conditions, to ensure adequate system draft and insure that no blockage has occurred.
- B. Flame Arrestors and Conservation vent valves shall be either routinely cleaned or inspected to prevent fouling or sticking. Draft gauges across flame arrestors may be used to determine if fouling has occurred.

C. Tank Integrity

All tanks used to handle, process or store regulated substances shall be inspected to insure physical tank integrity. Any hole, cracks or other structural problems shall be repaired in accordance with the times specified in the plan for repair.

D. All procedures specified above shall be incorporated as an appendix to the Odor Abatement Manual. The plan shall include specific inspection frequencies for all items subject to the plan and time limits for taking appropriate corrective action.

E. A log of Preventative Maintenance inspections shall be kept and shall include all discrepancies noted, date and time each discrepancy was found and corrective action taken. The log shall be kept for a least 2 years and shall be made available to AQD for inspection upon request.

#### **5.405 Equipment Maintenance and Repair**

A. Before process equipment (i.e., pipes, ducts, pumps, etc.) is opened to the atmosphere, liquids shall be drained and wetted surfaces flushed on site to remove TRS to the maximum extent practicable. Flushing liquids and/or purge air shall be vented to a thermal oxidation system or returned to the process to the maximum extent practicable.

B. Procedures to minimize TRS fugitive emissions shall be incorporated into the odor abatement manual.

#### **5.406 Cleaning of Tanks and Storage Vessels**

A. The provisions of Section 5.101 notwithstanding, small portable tanks and wagons shall be cleaned in accordance with the procedures specified in this section, regardless of tank contents.

B. Portable tanks and wagons shall be cleaned using steam and detergents in a enclosed area or using a cleaning device which is inserted into the tank and cleans it with hot water or detergents in a timed, programmed cleaning cycle. When steam cleaning in an enclosed area, emissions shall be vented to a scrubber, carbon adsorption or thermal oxidation system. Liquids shall be collected and processed as wastewater.

C. A general procedure for cleaning large, field erected storage tanks shall be included in the Odor Abatement Manual. The procedure shall include provisions to be taken to control odor during removal of the tank contents, processing the residual materials removed from the tank and cleaning the tank. It shall also include provisions for treating, handling and disposing of waste liquids and vapors as otherwise specified in this rule and for the processing of solids removed from the tanks to prevent the subsequent emission of objectionable odor. Notification of planned cleaning shall be provided to AQD at least 14 days prior to beginning cleaning operations.

## **PART V COMPLIANCE SCHEDULE**

**Each owner or operator subject to the provisions of this rule shall demonstrate compliance with the requirements of this rule in accordance with the following schedule:**

### **5.501 Process Operations**

- A. Construction and installation of all equipment necessary to comply with Part II, including all associated plumbing and electrical connections, shall be identified and reported to AQD within 30 days after the effective date of this rule. All necessary construction shall be completed and the equipment placed in service within 120 days after the effective date. Should it become evident that any project cannot be completed within the time allowed, the owner shall immediately apply for an Odor Compliance Plan to cover the time period necessary for completion, pursuant to Section 360.301, Ordinance Code.
- B. Testing
  - 1. Thermal Oxidizers. Initial emissions testing to demonstrate compliance with the TRS emission limiting standard shall be completed and compliance demonstrated within 60 days after the effective date. In the event that CO CEMs are used to demonstrate compliance, the monitors shall be installed and the initial test to demonstrate compliance with TRS limits at a CO level of 100 ppm shall be completed and compliance demonstrated within 120 days after the installation date.
  - 2. Scrubbers and Adsorbers. Testing to ensure optimum performance of each scrubber and adsorption unit subject to this rule shall be completed within 60 days after AQD approval of the odor abatement manual.
- C. Records and Reports

All records and logs required by Part II shall be initiated and maintained within 60 days after AQD approval of the odor abatement manual. Quarterly reports of CO CEMs exceedances shall be submitted following the end of the first calendar quarter after CEM installation.

### **5.502 Leak Detection**

- A. Each component subject to periodic leak detection shall be tagged with an I.D. number and periodic inspections begun within 30 days after AQD approval of the odor abatement manual, pursuant to Section 5.503B.
- B. The initial semiannual report required by Part III shall be submitted to AQD within 30 days after AQD approval of the Odor Abatement Manual and subsequent

semiannual reports shall be submitted within 30 days following the end of each semi-annual reporting period.

#### **5.503 Housekeeping and Training**

- A. Procedures to neutralize spills shall begin and a spill log shall be maintained not later than 30 days after AQD approval of the Odor Abatement Manual. The quarterly report of spills shall be submitted to AQD not later than 30 days after the end of the calendar quarter.
- B. The Odor Abatement Manual and associated Preventative Maintenance Plan (PMP) shall be drafted and submitted to AQD for review and approval within 120 days after the effective date of this rule. Annual updates shall be submitted to AQD for review and approval within 30 days following completion of the revisions.
- C. Initial employee odor abatement training shall begin not later than 30 days after AQD approval of the Odor Abatement Manual and shall be completed not later than 60 days after AQD approval of the Odor Abatement Manual. New employees subject to training under this rule shall receive training within 15 days of being hired or reassigned to duties requiring training.
- D. Initial inspections of the TRS Collection System, flame arrestors and conservation vent valves and tanks, as required by the PMP, shall be completed as expeditiously as possible but not later than 120 days after AQD approval of the PMP.
- E. Procedures applicable to process equipment repair and to cleaning of small portable tanks and wagons shall become effective upon the effective date of this rule.

#### **5.504 Effective Date**

This rule shall become effective 20 days following adoption by the Jacksonville Environmental Protection Board and filing with the Council Secretary.