

**SAN JOAQUIN VALLEY UNIFIED  
AIR POLLUTION CONTROL DISTRICT  
COMPLIANCE DEPARTMENT**

**COM 2190**

**APPROVED:** \_\_\_\_\_ **SIGNED** \_\_\_\_\_ **DATE:** March 8, 2007  
**Jon Adams**  
**Director of Compliance**

**TITLE:** **RULE 4604 – CAN AND COIL COATING OPERATIONS**

**SUBJECT:** **INSPECTION OF CAN AND COIL COATING FACILITIES**

**OBJECTIVE:**

To establish District policy and procedure for the implementation of Rule 4604 – Can and Coil Coating Operations.

**PURPOSE:**

Rule 4604 and associated permit conditions require can and coil coating facilities to limit the volatile organic compound (VOC) emissions discharged to the atmosphere. The policies and procedures are designed to ensure that staff determines compliance while uniformly interpreting the requirements of Rule 4604 during inspections.

**POLICY STATEMENT:**

District staff will enforce Rule 4604 and permit conditions limiting the discharge of VOC's from can and coil operations in accordance with these policies and procedures. Failure to comply with the requirements of this rule is a violation and may subject the source to enforcement action.

**I. AUTHORITY AND REFERENCES**

Rule 4604 limits the emissions of VOCs from can and coil coating operations, and from organic solvent cleaning, storage and disposal associated with can and coil coating operations.

## **II. GENERAL GUIDELINES**

### **A. Inspector Assignments**

Air Quality Inspectors will be responsible for compliance verifications for all facilities within their assigned geographical area.

### **B. Complaint Assignments**

Complaints against any can and coil operation will be assigned to the area inspector for investigation. If the area inspector is unavailable to respond to the complaint, then a back-up inspector for the area will be assigned. The inspector will investigate all aspects dealing with the complaint or observed problems with the facility. Common complaints are solvent odors and noise.

### **C. Pre-inspection Procedures**

Preparation for a routine compliance inspection includes, but is not limited to, the following:

1. Review current Rule 4604 requirements, as well as other applicable rules and policies.
2. Assemble and review conditions on all current Permits to Operate (PTO) as well as Authorities to Construct (ATC). Gather appropriate compliance inspection summaries and supplemental inspection forms.
3. Review the facility's previous compliance inspection summaries, and past and present compliance status. If available, study drawings of the facility's production lines and location of permitted equipment. Note any current variance activity and pending enforcement actions. If there have been problems in the past, pay closer attention to those areas during this inspection. Note if there have been any complaints since the last inspection that may indicate problem areas.
4. Assemble the appropriate safety equipment. Safety equipment worn should include goggles, earplugs, hard hats and steel-toed shoes. Loose fitting clothing should be avoided. Inquire at the facility if additional equipment is needed.

### **III. RULE 4604 REQUIREMENTS**

#### **A. Coating VOC Limits**

Tables 1-4 state the allowed VOC contents (in grams per liter of coating as applied, excluding water and exempt compounds) of coatings used in can and coil coating operations. The VOC limits imposed are contingent upon the product produced (two-piece cans, three-piece cans, drums, pails and lids, and coil coating operations), coating type (i.e., body spray, side seam coatings, end seal compounds, etc.) and the application method (i.e., spray, roll, any).

#### **B. Exemptions**

1. Facilities that use 55 gallons or less of the aggregate of coatings (as applied) and cleaning solvent (as applied) per rolling 12-month period. Sections 5.3 through 5.5 and applicable portions of 6.0 still apply.
2. Lubricants applied by the spray mister to the can end seal compound application nozzle and to the can body during the can body forming process.
3. Stripping of cured coatings, cured adhesives, and cured inks, except the stripping of such materials from spray application equipment.
4. The cleaning solvent VOC limit provisions of Table 5 shall not apply to the cleaning in laboratory tests and analyses, or bench scale or research and development projects.

#### **C. Violations**

An NOV shall be issued for all non-permitted sources, except as specified in Rule 2020 provided that usage records provide proof of exemption.

All violations of Rule 4604 and of permit conditions shall be documented and an NOV issued. The inspector shall explain to the facility representative the reasons why he/she is issuing the NOV and leave them with the pink copy of the NOV for their records. The inspection report shall contain information supporting the issuance of the NOV.

Follow-up inspections will be required to verify compliance. If evidence of compliance cannot be achieved, further enforcement action may be necessary.

An NOV Summary Report shall be completed, after compliance has been determined, and submitted to the Mutual Settlement Group.

#### D. Permit Conditions

Can and coil coating operations will often have numerous permit conditions in their PTOs. If the permit condition has requirements or standards similar to those in Rule 4604, the inspector will enforce the more stringent standard or requirement. If the permit condition references or essentially quotes the regulation, violation notices will be issued for the regulation only, not the condition.

### **IV. INSPECTION PROCEDURES**

#### A. GENERAL

All inspections shall be unannounced. Prior to entering the facility, drive around the plant to observe the operation. Note any odors or visible problems with the facility and investigate the possible sources during your inspection.

Upon arrival at the facility the inspector(s) shall identify themselves, show official identification, offer a business card, and contact the personnel in charge of compliance or production. The inspector will advise the facility representative of the purpose of the inspection and explain that they will be advised of the results at the completion of the inspection. Determine whether the facility is required to have a PTO. For permitted facilities, ensure that a current copy of all permits (and ATCs) are on the premises and available for review.

Inquire as to what type of safety equipment is needed to enter into the production areas of the facility. Throughout the duration of the compliance inspection, inspectors should stay in the vicinity of facility staff and not stray into potentially dangerous spaces. Keep in mind that production areas are often quite noisy, therefore, it is desirable to ask relevant questions before (and after) touring these areas. Brief notations written on permit condition sheets will aid the inspector's recall during the post-inspection interview.

#### B. SURFACE COATING OPERATIONS

During the course of the inspection, the inspector should visit the following:

1. Surface preparation area
2. Coating mixing area
3. Application area

4. Spray enclosures
5. Curing area
6. Clean-up operations
7. Coating and solvent storage area
8. Spent solvent storage and disposal area
9. Coating records
10. Emission control systems
11. Remainder of facility

Inspectors should observe coating application systems. Rule 4604 allows the use of electrostatic application, flow, roll or dip coating, HVLP spray and hand application methods. Pay particular attention to housekeeping in these areas. Note the presence of any coating containers that are open and not being used for ongoing operations. Rags containing coatings or solvents must be deposited in closed metal containers.

Coating usage records are required and should be available upon inspection. At a minimum the records must contain the following data:

1. The specific coating used and mixed ratio of components added to the coating material prior to application
2. Volume of coating applied (gallons)
3. Records shall be maintained on daily basis
4. A current list of coatings used must be on the premises and available for inspection. The list shall contain the following information:
  - a. Specific coatings, catalysts & reducers used
  - b. Mix ratio of components used
  - c. VOC content of each coating, as applied

The following should also be included in an evaluation of records in order to determine compliance with the recordkeeping requirements:

1. Review Material Safety Data Sheets (MSDS)
2. Review facility-wide records
3. If all the information required in items 1 & 2 is maintained on a source-specific basis, as are some computer records, facility-wide records are not required.
4. Review daily coating usage records for each source being operated on the date of inspection.
5. Review daily usage records for the most appropriate time period as follows:

- a. Sources subject to the rule for more than one year prior to inspection date: evaluate the prior 12 months.
- b. Sources subject to the rule for less than one year prior to inspection: use the date of ATC or PTO issuance or equipment start-up date.
- c. Last inspection within prior 12 months: use the date of previous inspection going forward.

Solvents used in cleaning operations must adhere to the VOC limits imposed by Table 5. The VOC content allowed is dependent upon the type of cleaning operation (i.e., product cleaning during manufacturing or surface preparation, repair and maintenance cleaning and cleaning of coating application equipment). Records of volume and type of all solvents, catalysts and thinners used must be maintained.

In certain cases records are in existence at the time of inspection, but cannot be produced because knowledgeable personnel are not present or for other good reasons. The inspector will advise the owner/operator of the need to have records readily available. If not available, the facility will provide the records to the District within three working days. If the records are not produced within this time, a violation notice will be issued.

In some cases, the facility has records but they are incomplete because some items such as the date or totals are missing. If it is apparent that the owner/operator is making a reasonable effort to comply with the regulation or permit condition, and compliance with the coating standards can be demonstrated on a continuing basis, a Notice to Comply should be issued.

Example: The inspector finds a facility is keeping current records. Out of 12 months of records, two days of usage have not been entered and the VOC content of a few of the coatings is missing. However, the facility contact has a copy of the MSDS for each coating containing the current VOC information. In addition, the inspector notes that the coating usage remains consistent. From this information, the inspector can conclude that compliance has been demonstrated and no coating excesses have occurred.

A violation notice should be issued for failure to keep records for each day of operation as determined in accordance with Section 6.0 of District Rule 4604. In cases where no records are kept, the inspector will take alternate steps to determine compliance with the coating standards. These steps may include, but are not limited to, the inspection of purchase records, production records, etc. If compliance cannot be determined, samples of all coatings should be taken.

Assure that the facility is using compliant solvents. Table 5 of Rule 4604 specifies VOC limits for solvents used depending on use. Determine the use of any solvent observed in containers at the facility. Ask to inspect solvent usage logs. Compare the usage logs to purchase receipts. Records of the volume of each solvent used for clean-up and surface prep should be available for inspector review. While inspecting the operation, look for clean-up solvent containers and rags used for clean-up. All clean-up solvents and rags shall be kept in closed containers. Cleaning solvents for continuous line use shall also be stored in closed containers.

An emission control system, such as a thermal oxidizer, for reducing emissions of VOCs, is used at some facilities. Rule 4604 requires that these emission control systems have an overall capture and control efficiency of at least 90 percent by weight. VOC emission control systems must also reduce emissions to a level that is not greater than the emission level, which would have been achieved through the use of compliant coatings. Overall VOC capture and control efficiency must be determined periodically through source testing.

Inspectors should verify by reviewing data in the Permit Administration System that, if required, source testing has been conducted and that the results indicate compliance. Note the integrity of ductwork and collection hoods associated with the VOC control equipment. Verify that there is air movement into the hoods at VOC collection points. The inspector should determine that the emission control system is operating at the minimum allowed temperature. Historical temperature records should also be reviewed. Rule 4604, Section 6.5, requires that an Operations and Maintenance Plan for the emissions control system be maintained at the facility. Staff should ensure that the minimum actions identified by Section 6.5 are contained in the plan and are being performed by the facility.

### C. PERMIT CONDITIONS

Where the recordkeeping requirements are essentially the same in the regulation as in the permit condition, the regulation will be used for evaluating records. Where the recordkeeping requirements are different in the regulation from the permit condition, the most stringent requirement will be used for evaluation. The lesser requirement will not be used for evaluation or cited for a violation.

Most permit conditions at 4604 facilities limit the amount of coatings used and/or the net solvent usage or evaporation for surface preparation and clean-up on a daily basis. Records should be evaluated for the 12-month period prior to the date of inspection or from the date the condition became effective, whichever is longer. Net solvent usage or evaporation should be determined from purchase records minus any disposal records. Disposal can include removal as waste or material that is sent to be reclaimed. If usage limits are

exceeded, an NOV should be issued. The owner/operator should be advised of their option to submit a new permit application requesting an increase in the facility's coating usage. The compliance date for the violation will be the date when the daily usage falls below the condition limit or when a permit application is deemed complete permit services division.

If the condition is not subsequently modified by permit services and usage is exceeded, a second Notice of Violation shall be issued.

#### D. OTHER STANDARDS

**Prohibition of Specification:** If the facility states that a contract requires them to use a noncompliant coating, remind them that the use of coatings that do not meet the VOC limits of Rule 4604 is prohibited and this applies to all written or oral agreements entered into or renewed by the facility.

#### E. POST-INSPECTION PROCEDURES

Prior to leaving the facility, the inspector will have completed their evaluation of the compliance status of the facility and have obtained all information necessary to complete the inspections summary and appropriate supplemental forms.

The following elements should be covered with the owner/operator in a post-inspection interview:

1. Discuss the overall condition of the facility and equipment and review the facility's preventative maintenance program.
2. Review rules applicable to the source and advise the source of any rule changes or upcoming VC limitations.
3. Review all PTOs and ATCs including the need for proper posting and to comply with appropriate conditions. Discuss any permit conditions that appear to be incorrect.
4. Review the results of the equipment inspection and the storage of coatings, adhesives, solvents and rags.
5. If coating samples were taken, advise the source of possible enforcement actions if any coating is found to be noncompliant.
6. Review the records evaluation, advise the source of any deficiencies, and discuss improvement areas.
7. Issue appropriate NOVs or Notices to Comply (NTC) and review other compliance options.
8. Advise the source of District procedures applicable to any new plant equipment or modifications to permitted equipment.



9. Provide compliance assistance information as necessary, including pamphlets, appropriate rule copies, and Air Resources Board brochures. Make appropriate recommendations to improve compliance and to facilitate future inspections. The goal of a successful compliance inspection is to ensure that the owner/operator has sufficient information and understanding of the regulations to maintain continued compliance.

If the inspector has written an NOV or NTC, he/she will verify that the facility is in compliance by reinspecting the affected equipment once the corrections have been made.