AIR POLLUTION CONTROL DISTRICT
REGULATORY COMPLIANCE DIVISION

POLICIES AND PROCEDURES

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Topic: SURFACE COATING OF WOOD PRODUCTS

Distribution: ALL DIVISION STAFF

This policy and procedure provides guidance for conducting compliance inspections of surface coating operations subject to Rule 351, Surface Coating of Wood Products, adopted August 24, 1993.

Rule 351

Any facility engaged in the surface preparation and surface coating of wood products may be subject to the requirements of Rule 351. Those facilities not subject to the requirements of Rule 351 are outlined in Sections B.1. through B.5. (Exemptions).

Evaluating Rule 323 vs. Rule 351

During the course of conducting a wood products coating inspection the inspector may encounter articles claimed by the source to be subject to Rule 323, e.g., appurtenances to a stationary structure. Upon verification of the claim, the article(s) may be subject to the requirements of Rule 323, Architectural Coatings, per Policy and Procedure II.I.2 Wood products determined not to be an appurtenance to a stationary structure would be subject to the requirements of Rule 351. If a rule applicability determination cannot be verified, inspectors should refer the matter to their supervisor for review and direction.

PROCESS DESCRIPTION

The application of wood coatings requires several steps to achieve a good quality finish. Before any coatings are applied to wood products, the surfaces are sanded to remove nicks, scratches or other blemishes which might detract from the finished product.

Nicks, cracks and uneven wood grain on the wood surface are filled with wood putty and re-sanded until the wood surface and repaired areas display a uniform smoothness.

If the wooden article is to be refinished, it is often first treated with a solvent stripper to remove old coatings and residues.

If stains are used, they are normally applied after the aforementioned procedures. Stains are applied by brush, rag, or are sometimes sprayed. After staining, sealers or wash coats are applied to seal the wood prior to the application of a topcoat. After the sealer or wash coat has

dried, the wood surface will again be lightly sanded to remove any rough texture prior to applying a topcoat. The next phase is the application of topcoats. Some topcoats are pigmented. Pigments add color to the coating thus hiding the wood surface. In some cases, toners are applied to the coated surface (usually over a clear coat) to add tint to the coated surface. Some topcoats are simply clear, allowing the wood's natural grain or tone to show through. Topcoats are applied by various transfer methods as described in Rule 351.E., Transfer Efficiency.

INSPECTION PROCEDURE

Due to the variations in the type and size of surface coating operations and the variations between applicable Rules, the complete inspection process may vary from source to source. At a minimum, the following procedures should be followed:

1. File Review

   A. Review the permit prior to inspection to determine what specific rules and conditions apply.
   B. Review applicable District Rules.
   C. Review the Engineering Evaluation.
   D. Review past inspection reports and any resulting enforcement actions. Confirm that all enforcement actions have been settled and/or compliance was attained.
   E. Verify that any required annual reports have been received and reviewed for compliance.
   F. Resolve any questions prior to departing for the inspection.

2. Checklist Preparation

   A. Use the Wood Products Surface Coating Operation Inspection Checklist (ENF-67).
   B. Prior to arriving at the site to conduct the inspection, complete as much of the top portion of page one of the checklist as possible.

3. Access

   Obtain access to the facility using the procedures outlined in Policy Number I.B., Access to the Facility.

4. General

   A. Verify that a current Permit to Operate (PTO) is posted or readily available.
   B. Conduct a pre-inspection interview with the facility operator. Discuss the permit conditions and all applicable District Rules. Attempt to resolve any questions the permittee may have. Make note of any questions that you cannot satisfactorily answer and discuss them with your supervisor as soon after the inspection as possible.
   C. Verify that all required recordkeeping has been maintained and is available for inspection. Records are required to be maintained for three years.

D. Verify that the equipment is the same as described on the permit. If not, note any inconsistencies.
E. Verify that the process/operation is the same as that described in the permit. If not, note any changes.
F. If substrate preparation involves any stripping or abrasive blasting operations, determine the permit status and ensure that operations are being conducted in compliance with applicable District rules. Title 17, CAC governs abrasive blasting operations. Per Rule 351, after July 1, 1995, strippers which contain more than 350 g/l or 2.9 lb/gal ROC must not be used.
G. If the facility is found to be conducting spray-type surface coating operations or abrasive blasting operations during your inspection, conduct a Visible Emissions Evaluation (VEE) per APCD Policy No. I.D.1. Use the procedures outlined in EPA Method 9 to conduct and record a Visible Emissions Evaluation.

5. Spray Booth and Equipment

A. If coating operations are conducted in a spray booth equipped with a filtered exhaust system, inspect the enclosure:
   1) Verify that filters are installed and are in good condition. Note the type of filter material.
   2) Verify that the exhaust fans produce sufficient draw and that overspray is drawn into the filter banks and not found outside of the booth.
B. If add-on exhaust control equipment is being used, determine that such control equipment has been approved by the APCO and that the add-on controls have been demonstrated to reduce emissions by at least 85 percent.
C. Determine what coating application methods are being used. This should be accomplished by observation, and a review of recordkeeping entries requiring this data.
   1) If HVLP spray techniques are being employed, verify that the proper pressure levels and flow rates are being maintained. Pressure gauge readings observed during coating operations are the best method for determining compliance.
   2) If electrostatic or electrodeposition methods are being employed, check the voltage levels used against the manufacturer's operating recommendations to ensure the proper parameters are being applied.
   3) Evaluate and document any other coating process(es) being used for compliance with District rules and or permit requirements. i.e. silkscreening, pin-striping, etc.
   4) Evaluate and document any exemptions being claimed per 351.B.1. through B.5.
   5) Investigate and document any non-transfer efficient application equipment, such as airless or non-HVLP spray guns, identified at the facility. Rule 351, Section E stipulates a transfer efficiency of 65 percent or greater.

6. COATING, STAINS, SEALERS, STRIPPERS, AND SOLVENTS

A. Inspect the materials inventory. Ask about any coating suspected to be non-compliant. Remember that any coatings, stains or sealers manufactured prior to January 1, 1994, and not complying with the standards set in Rule 351, Attachment 1, shall not constitute a violation of Section D. until July 1, 1995.

B. Rule 351 does not address the storage of ROC containing materials in closed containers. If you discover that ROC containing materials are not being stored in sealed containers, encourage the source to close them to preserve their inventory and avoid the potential for fire hazard. Also, check to see if the requirement to maintain "closed containers" is a permit condition.

C. If the facility uses organic solvents or materials containing organic solvents, determine if the emissions discharged into the atmosphere exceed the limits set forth in District Rule 317.

D. Evaluate and document the disposition of any ROC containing wastes. Are they recycled or collected by a hazardous waste hauler? How are they disposed of?

E. Evaluate the use of photochemically reactive solvents (PRS) per Rule 324. If PRS solvents are used, attempt to assess whether their disposal and/or evaporation has been limited to 1½ gallons or less per day?

7. NON-COMPLIANT COATINGS

A. All wood products surface coating operations are allowed to use up to 20 gallons per year of non-compliant coating, provided records are kept in accordance with Rule 351. Section H.3.

B. If a facility uses more than 20 gallons of non-compliant coatings, the source must have add-on exhaust controls per Rule 351.D.3.

8. RECORDKEEPING

Verify compliance with applicable ROC content limits (as applied) per Rule 351, Attachment 1. Take a sample, if necessary, to determine compliance (use the procedure stipulated in Policy Number III.B.2. Sampling).

A. Evaluate the facility's recordkeeping for all elements required in Rule 351.H.1. through H.4.

B. Verify that sources using add-on controls to achieve compliance, maintain a current listing of all ROC containing materials used at the facility per Section H.1. Requirements. Verify that consumption data and key operating parameters for emission control equipment are being kept.

C. Verify that all required recordkeeping elements are being kept for a minimum of three (3) years per Section H.4.

D. Verify that sources claiming exemptions per Section B.5. are maintaining records of the total volume of non-compliant coatings used per Section H.3.

E. For permitted sources, determine if there are additional recordkeeping requirements imposed by permit conditions.

9. PERMIT CONDITIONS

Determine compliance with conditions detailed within the Permit to Operate. Document any discrepancies or violations identified.

10. DOCUMENTATION

A. The inspector will document the inspection using the ENF-67 Inspection Checklist

B. In the event a violation is observed, an additional report will be required using the procedures outlined in the Policy Number I.F., Inspection Report and Policy Number VII.A., Notice of Violation.

FID No:_____
PERMIT TYPE:
ATC# _____
PTO# _____

WOOD PRODUCTS
Surface Coating Operation
Inspection Checklist

DATE: _____
TIME IN: _____
TIME OUT: _____
SUP. OK: _____

FACILITY NAME: _____

LOCATION: _____ PHONE: (___) _____

MAILING: _____

CONTACT: _____ TITLE: _____

ACCESS GRANTED: Yes/No BY WHOM/TITLE: _____

INSPECTOR: _____ Last Inspection Date: ___/___/___

INSPECTION TYPE: Routine ___ SCDP ___ Reinsp ___ Complaint ___ Other ___
Complaint # _____

IN COMPLIANCE? Yes/No NOV # _____ and/or AIDoc # _____

Rule(s)/Permit Condition Violated _____

Engineering Division, see comments numbered _____ at end of report.

List of Attachments: _____

_____

_____

GENERAL (Prefix items with an * to indicate that comments follow below)

		YES	NO	N/A
1.	Was a pre-inspection interview conducted with the facility representative including a discussion of permit conditions and applicable District Rules?	( )	( )	( )
2.	Was a current copy of the Permit to Operate posted or otherwise readily available? (if not applicable, indicate why in the comments section.)	( )	( )	( )
3.	Were recordkeeping logs, including purchase records, being maintained and available for inspection?	( )	( )	( )
4.	Was the equipment the same as specified on the permit? (Note any changes in the comments section.)	( )	( )	( )
5.	Was the operation and/or process the same as specified on the permit? (Note any changes in the comments section.)	( )	( )	( )
6.	Was a visible emission evaluation conducted per Rule 302?	( )	( )	( )
	Visible emission from stack _____% opacity (attach VEE form, ENF-16)			
7.	Were there items being coated that were suggested to be appurtenanaces and therefore regulated under another coating rule other than Rule 351? (Explain in comments section)	( )	( )	( )

SPRAY BOOTH and EQUIPMENT

	YES	NO	N/A
7. Were filters properly installed and in good condition? Filter Material: _____	( )	( )	( )
8. Did the exhaust fan(s) work and produce sufficient draw?	( )	( )	( )
9. Were ductwork and collection hoods functional and in good repair?	( )	( )	( )
10. Was there evidence of overspray outside the booth?	( )	( )	( )
11. Is any add-on exhaust control equipment being used? (Evaluate compliance per Rule 351.D.3.)	( )	( )	( )
12. Has all documented or observed coating application been accomplished using an approved transfer efficient method per Rule 351.E.?	( )	( )	( )
13. What application methods have been/are being used at this facility? _____			
14. Were the proper pressure levels being maintained if HVLP spray equipment was being used? (typically: air pressure 0.1 - 10.0 psi and fluid pressure 10-15 psi)	( )	( )	( )
15. Were the proper voltages being maintained on any electrostatic or electrodeposition processes? (typically 60 - 100 KV)	( )	( )	( )
16. Were any non-transfer efficient spray guns observed?	( )	( )	( )
If yes, explain their use/purpose in the comments section.			

COATINGS, REDUCERS, CATALYSTS, THINNERS, and SOLVENTS

17. Was the VOC content, as applied, of each material currently maintained and designated for use at this facility in compliance with Rule 351, Attachment 1?	( )	( )	( )
If no, were the VOC containing materials manufactured prior to January 1, 1994?	( )	( )	( )
If no, was an exemption being claimed with supporting records?	( )	( )	( )
18. Was there evidence that any organic materials/solvents were being or have been discharged into the atmosphere in quantities greater than that allowed by Rule 317?	( )	( )	( )

19. Were VOC containing wastes being recycled on-site ( ) or hauled away ( )? (check one). If hauled, by whom _____

RECORDKEEPING

20. Was a current listing of all materials in use at the facility maintained on site per Rule 351.H.1.?	( )	( )	( )
21. Did recordkeeping entries maintained by the permittee contain all of the data items as required by Rule 351.H.1.?	( )	( )	( )
22. Were records being kept for usage of non-compliant coatings as required in Rule 351.H.2.?	( )	( )	( )

	YES	NO	N/A
23. Does the facility use non-compliant coatings with compliance achieved through control equipment per 351.D.3.?	( )	( )	( )
If yes, were daily records maintained which provide consumption data and key operating parameters for the emission control equipment per 351.H.2.?	( )	( )	( )
24. Does this source claim an exemption to use up to 20 gallons of non-compliant coatings per Rule 351.B.5.?	( )	( )	( )
If yes, are purchase records and coatings volume usage records maintained on site as required in Rule 351.H.3.?	( )	( )	( )
25. Do recordkeeping entries satisfy all of the conditional requirements of the Authority to Construct or the Permit to Operate? If not, explain in the comments section.	( )	( )	( )
26. Was compliance demonstrated with all other conditions of the permit, including Emission Limits? If not, explain in the comments section.	( )	( )	( )

CLOSING the INSPECTION

27. Were copies of any recordkeeping and/or other written or printed materials required and/or requested?	( )	( )	( )
28. Was an APCD Form 82, Request For Information, issued for any information needed but not readily available? If yes, attach Form 82 to checklist.	( )	( )	( )
29. Was an APCD-16, Notice of Violation, or an ENF form 47, Administrative Infraction Document, issued? If yes, attach a copy to checklist.	( )	( )	( )
30. Was a post-inspection interview conducted with the facility representative to review the results of the inspection?	( )	( )	( )

COMMENTS: _____