

Fact Sheet

CONTROL TECHNIQUES GUIDELINES FOR SHIPBUILDING AND SHIP REPAIR FACILITIES OPERATIONS (SURFACE COATING)

August 1996

TODAY'S ACTION...

The Environmental Protection Agency (EPA) is today issuing the Control Techniques Guidelines (CTG) document for control of volatile organic compound (VOC) emissions released from shipbuilding and ship repair operations (surface coating).

The affected source is the aggregate of all operations/activities at a major source shipbuilding or ship repair facility in nonattainment areas for ozone.

The CTG's focus is on limiting the VOC content of several categories of marine coatings and specifying work practices that minimize evaporative emissions and spills from the handling, transfer, and storage of organic thinning solvent and paint wastes. The CTG does not provide recommendations for best available control measures (BACM) for particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM-10).

The CTG is a result of a cooperative effort involving major stakeholders. The CTG document was developed at the same time as the National Emission Standard for Hazardous Air Pollutants (NESHAP) for shipbuilding and ship repair operations (surface coating). Participants throughout the development the CTG included representatives from the industry (including small business), the Navy, and the coatings industry.

The CTG is intended to provide State and local air pollution authorities with an information base for proceeding with their own analyses of reasonably available control technology (RACT) for control of VOC emissions. The CTG notice and the Alternative Control Techniques document (EPA/453/R-94-032), as modified by

this notice, should be considered the CTG. A "presumptive norm" for RACT is included in the document; however, the presumptive norm is only a recommendation.

WHAT ARE THE HEALTH AND ENVIRONMENTAL BENEFITS?

The application of the presumptive RACT by facilities in ozone nonattainment areas will reduce VOC emissions from sources in the shipbuilding and ship repair

industry by 1250 Megagrams per year (Mg/Yr)(1370 tons per year (tpy)) from the estimated baseline value of 2700 Mg/yr (3000 tpy). The VOC emission reduction was based on the lower VOC content (higher nonvolatiles) of compliant coatings. The use of waterborne coatings and higher nonvolatiles coatings will also reduce worker exposure to organic solvents.

BACKGROUND

The Clean Air Act (CAA) Amendments of 1990 require that State implementation plans for certain ozone nonattainment areas be revised to require the implementation of RACT for control of VOC emissions from sources for which the EPA has already published a CTG or for which the EPA will publish a CTG between the date of enactment of the amendments and the date an area achieves attainment status.

Section 183(b)(4) of the CAA lists Shipbuilding and Ship Repair Operations as a source category for which the EPA must issue a CTG to reduce aggregate emissions of VOC material and PM-10 into the ambient air, and specifies that the CTG be based on BACM.

This CTG includes a presumptive norm for RACT for control of VOC emissions from shipbuilding and ship repair operations (surface coating), which is identical to BACM, as determined by the EPA. Where applicable, the EPA recommends that States adopt requirements consistent with the presumptive norm. However, States may choose to develop their own RACT requirements on a case-by-case basis or require more control than is recommended as the presumptive norm for RACT.

While developing BACM, the costs of various emission control techniques were reviewed. The coating limits are based on the marine coating limits in California (with a few modifications).

The CTG applies to those facilities in nonattainment areas which already have shipbuilding and ship repair (or marine) coating regulations; the State limits must be as stringent as the CTG.

The BACM presented here are similar to those proposed in the Federal Register on December 6, 1994 (59 FR 62681).

WHO WILL BE AFFECTED BY THE FINAL CTG?

The recommendation for BACM (presumptive RACT) in the CTG is expected to apply to approximately 100 shipbuilding and ship repair major source facilities in ozone nonattainment areas nationwide.

WHAT ARE THE MAIN COMPONENTS OF THE CTG?

The recommendation for BACM (presumptive RACT) in the CTG is based on two requirements--emissions limits and work practice standards. Facilities may use low-VOC coatings, higher solids (nonvolatiles) coatings, or a control device to meet the emissions limits.

The solids (nonvolatiles) based units should be used to determine if the limits are met whenever thinning solvents are added to a coating.

The work practice standards recommended in the CTG will reduce evaporation of VOC compounds from wasteful practices. Control measures such as keeping containers of materials closed and repairing leaking equipment are recommended. These work practices will focus attention on quality control issues that will result in the minimization of VOC emissions.

The model rule in the NESHAP for shipbuilding and ship repair (surface coating) operations published on December 15, 1995 (60 FR 64330) contains example monitoring, record keeping, and reporting requirements.

HOW MUCH WILL THE RECOMMENDED RACT COST?

The annualized costs of implementing the recommended RACT requirements to all affected sources in the shipbuilding and ship repair industry is about \$1.1 million, at a cost effectiveness of about \$846/Mg of VOC controlled. (These costs are in addition to the \$2.0 million assigned to the NESHAP for controlling the emissions of volatile hazardous air pollutants (and VOC) material from 35 of the estimated 100 major sources.