

## TITLE 17. CALIFORNIA AIR RESOURCES BOARD

### NOTICE OF PUBLIC HEARING TO CONSIDER ADOPTION OF AN AIRBORNE TOXIC CONTROL MEASURE TO REDUCE EMISSIONS OF HEXAVALENT CHROMIUM AND NICKEL FROM THERMAL SPRAYING

The Air Resources Board (the Board or ARB) will conduct a public hearing at the time and place noted below to consider adoption of a regulation to reduce emissions of hexavalent chromium and nickel from thermal spraying.

DATE: December 9, 2004

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency  
Air Resources Board  
1001 I Street  
Central Valley Auditorium, Second Floor  
Sacramento, CA 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., on Thursday, December 9, 2004, and may continue at 8:30 a.m., December 10, 2004. This item may not be considered until December 10, 2004. Please consult the agenda for the meeting, which will be available at least 10 days before December 9, 2004, to determine the day on which this item will be considered.

If you have a disability-related accommodation need, please go to <http://www.arb.ca.gov/html/ada/ada.htm> for assistance or contact the ADA Coordinator at (916) 323-4916. If you are a person who needs assistance in a language other than English, please contact the Bilingual Coordinator at (916) 324-5049. TTY/TDD/Speech-to-Speech users may dial 7-1-1 for the California Relay Service.

### **INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT** **OVERVIEW**

**Sections Affected:** Proposed adoption of new section 93102.5, title 17, California Code of Regulations (CCR).

#### **Background:**

The California Toxic Air Contaminant Identification and Control Program (Program), established under California law by Assembly Bill 1807 (Stats. 1983, Ch. 1047) and set forth in Health and Safety Code (HSC) sections 39650–39675 (as amended), requires the ARB to identify and control toxic air contaminants (TAC) in California. Following the identification of a substance as a TAC, Health and Safety Code section 39665 requires the ARB, with participation of the air pollution control and air quality

management districts (districts), and in consultation with affected sources and interested parties, to prepare a report on the need and appropriate degree of regulation for that substance. Health and Safety Code section 39665(b) requires that this “needs assessment” address, among other things, the technological feasibility of proposed airborne toxic control measures (ATCM) and the availability, suitability, and relative efficacy of substitute products or processes of a less hazardous nature.

Once the ARB has evaluated the need for and appropriate degree of regulation of a TAC, Health and Safety Code section 39666 requires the ARB to adopt regulations to achieve the maximum feasible reduction in public exposure to TACs.

The Board identified hexavalent chromium and nickel as TACs in 1986 and 1991, respectively. Both hexavalent chromium and nickel were determined to be human carcinogens without an identifiable threshold exposure level below which no significant adverse health effects are anticipated. Nickel was also deemed to have acute health impacts. Because hexavalent chromium and nickel do not have Board-specified threshold exposure levels, HSC section 39666 requires that the proposed ATCM be designed to reduce emissions to the lowest achievable level through the application of the best available control technology (BACT) or a more effective control method, in consideration of cost, risk, environmental impacts, and other specified factors.

#### **Description of the Proposed Regulatory Action:**

Thermal spraying (or metal spraying) is a process in which materials are heated to a molten or nearly molten condition and are sprayed onto a surface to form a coating. The proposed ATCM applies to thermal spraying operations at any stationary source that uses materials containing chromium, chromium compounds, nickel, or nickel compounds. The proposed ATCM requires the use of BACT in consideration of risk and cost, and also establishes hourly emissions limits for nickel for existing, modified, and new facilities. The proposed ATCM also establishes recordkeeping, monitoring, and reporting requirements. However, the proposed ATCM does not regulate the sale or composition of thermal spraying materials. It also does not apply to portable thermal spraying operations that are temporary (not more than 30 consecutive days at the same location) and are used for offsite field applications.

If a facility does not use materials that contain chromium, chromium compounds, nickel, or nickel compounds, it is not subject to the proposed ATCM. If a facility has very low emission levels (e.g., less than 0.001 pounds per year of hexavalent chromium), it may qualify for an exemption from installing additional controls. However, the facility must still comply with the permitting, recordkeeping, monitoring, and reporting requirements.

The proposed ATCM specifies that facilities with relatively high emission rates must meet the highest control efficiency requirements, while facilities with much lower emission rates must meet slightly lower control efficiency requirements. Emissions are determined by using ARB’s calculation methods specified in Appendix 1 of the

proposed ATCM, or by using source test data that has been approved by the local air district. The proposed ATCM specifies the test methods to be used when conducting an emissions source test.

All existing facilities must comply with the proposed ATCM by January 1, 2006. New and modified thermal spraying operations must comply upon initial startup.

Existing thermal spraying operations are defined as those operations in existence as of January 1, 2005. These operations must use air pollution control devices that meet minimum control efficiency levels, ranging from 90 percent to 99.97 percent. The efficiency requirements are established in consideration of health risks and cost. These facilities must also use an enclosure and a ventilation system that complies with designated operating standards. In addition, recordkeeping and regular monitoring are required to ensure the proper operation of the ventilation system and control devices. An existing thermal spraying facility may be exempt from the minimum control efficiency requirements of the proposed ATCM if it is located at least 1,640 feet from the nearest sensitive receptor and emits no more than 0.5 pound per year of hexavalent chromium. This exemption is contingent upon the facility's submission of a permit application and annual reports of hexavalent chromium and nickel emissions. This exemption is also contingent upon a site-specific analysis of public health impacts conducted by the air district. The air district will verify annually that the facility continues to meet the necessary requirements for an exemption.

All existing thermal spraying operations must submit an emissions inventory by October 1, 2005, and obtain a permit from their local air district if they do not have one.

Modified thermal spraying operations are defined as those operations that undergo a modification after January 1, 2005. Modified thermal spraying operations must use an air pollution control device that can achieve 99.97 percent control efficiency down to 0.3 microns (e.g., a high efficiency particulate abatement or HEPA filter). If a facility already has a HEPA filter, no additional upgrades are required after a modification.

New thermal spraying operations are defined as those operations that have an initial startup after January 1, 2005. No person may operate a new thermal spraying operation unless it is located outside of an area that is zoned for residential or mixed use and is located at least 500 feet from the boundary of any area that is zoned for residential or mixed use. In addition, new thermal spraying operations must use an air pollution control device that meets at least 99.97 percent control efficiency down to 0.3 microns (e.g., a HEPA filter). Existing facilities that add new permit units are not considered to be "new facilities." All new facilities must undergo a site-specific evaluation by the local air district to ensure that they do not present a public health risk.

## **COMPARABLE FEDERAL REGULATIONS**

There are no comparable federal regulations that apply to thermal spraying operations that use materials containing chromium, chromium compounds, nickel, or nickel compounds.

## **AVAILABILITY OF DOCUMENTS AND CONTACT PERSONS**

The ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the Proposed Regulatory Action, which includes the full text of the proposed regulatory language, a summary of the economic and environmental impacts of the proposal, and supporting technical documentation. The report is entitled: "Staff Report: Initial Statement of Reasons for the Proposed Airborne Toxic Control Measure to Reduce Emissions of Hexavalent Chromium and Nickel from Thermal Spraying."

Copies of the ISOR and the full text of the proposed regulatory language may be accessed on the ARB's web site listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, CA 95814, (916) 322-2990 at least 45 days prior to the scheduled hearing on December 9, 2004.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on the ARB's web site listed below.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons, Monique Davis, Air Resources Engineer, at (916) 324-8182 or Jose Gomez, Manager, Technical Development Section, at (916) 324-8033.

Further, the agency representative and designated back-up contact persons to whom nonsubstantive inquiries concerning the proposed administrative action may be directed are Artavia Edwards, Manager, Board Administration & Regulatory Coordination Unit, (916) 322-6070, or Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB Internet site for this rulemaking at <http://www.arb.ca.gov/regact/thermspr/thermalspr.htm>.

## **COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED**

The determinations of the ARB's Executive Officer concerning the costs or savings necessarily incurred by public agencies and private persons and businesses in reasonable compliance with the proposed regulations are presented below.

The ARB's Executive Officer has determined that the proposed regulatory action will not create costs or savings, as defined in Government Code sections 11346.5(a)(5) and 11346.5(a)(6), to any state agency or in federal funding to the state, costs or mandate to any school district whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, or other nondiscretionary savings to State or local agencies.

The proposed regulatory action will impose a mandate upon and create costs to some local government agencies. One local agency that performs thermal spraying will be minimally impacted because it will incur costs of approximately \$600 per year to conduct monitoring, recordkeeping, and reporting. These costs are not state mandated costs that are required to be reimbursed pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code and section 6 of article XIII B of the California Constitution, because the proposed regulations apply generally to all thermal spraying operations in the State and do not impose unique requirements on local government agencies.

The proposed regulatory action will also impose a mandate upon and create costs to local air pollution control and air quality management districts (the "districts"). However, these costs to the districts are recoverable by fees that are within the districts' authority to assess (see Health and Safety Code sections 42311 and 40510). Therefore, the proposed regulatory action imposes no costs on local agencies that are required to be reimbursed by the State pursuant to part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code, and does not impose a mandate on local agencies that is required to be reimbursed pursuant to Section 6 of Article XIII B of the California Constitution.

In developing this regulatory proposal, the ARB staff evaluated the potential economic impacts on representative private persons and businesses. The proposed ATCM is expected to impact 37 thermal spraying facilities; 34 are businesses, two are federal government facilities, and one is a local government facility. Twenty-six of the 34 businesses have fewer than 100 employees and are considered small businesses. Twenty-four of the 37 affected facilities already have HEPA filters or other control devices that are expected to qualify as BACT. Since these 24 facilities already have adequate control, they will not have to upgrade their systems but they may experience impacts which include obtaining or modifying permits, improving their ventilation system monitoring, and maintaining additional records. One thermal spraying facility is operated by a local public agency. The impact on this local agency is expected to be minor, since the facility is already permitted and has already installed a HEPA filter.

Nine facilities may qualify for an exemption from additional controls under subsection (c)(1)(E). These facilities must still comply with the permitting, recordkeeping and reporting requirements.

The Executive Officer has made an initial determination that the proposed regulatory action will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action will have minimal or no impacts on the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

As discussed in the ISOR, most affected businesses will be able to absorb the costs of the proposed ATCM with no significant adverse impacts on their profitability. However, four facilities subject to control requirements could be adversely impacted because they would need to upgrade or install new control devices if they elect to continue thermal spraying operations. As discussed in the ISOR, three of these facilities are expected to cease thermal spraying operations rather than complying with the proposed ATCM because thermal spraying generates less than five percent of their gross annual revenue. The fourth facility, however, is expected to install controls since it is a large dedicated thermal spraying operation. This facility would experience a significant adverse economic impact on its profitability, and the Executive Officer has therefore determined that the proposed regulatory action will have a significant adverse economic impact on this one business.

The Executive Officer has also determined, pursuant to title 1, CCR, section 4, that the proposed regulatory action will affect small businesses.

In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the Executive Officer has found that the reporting requirement of the regulation which apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

Before taking final action on the proposed regulatory action, the ARB must determine that no reasonable alternative considered by the agency or that has otherwise been identified and brought to the attention of the agency would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

## **SUBMITTAL OF COMMENTS**

The public may present comments relating to this matter orally or in writing at the hearing, and in writing or by e-mail before the hearing. To be considered by the Board, written submissions not physically submitted at the hearing must be received **no later than 12:00 noon, December 8, 2004**, and addressed to the following:

Postal mail is to be sent to:

Clerk of the Board  
Air Resources Board  
1001 I Street, 23<sup>rd</sup> Floor  
Sacramento, CA 95814

Electronic mail is to be sent to: **thermspr@listserv.arb.ca.gov**, and received at the ARB **no later than 12:00 noon, December 8, 2004**.

Facsimile transmissions are to be transmitted to the Clerk of the Board at (916) 322-3928 and received at the ARB **no later than 12:00 noon, December 8, 2004**.

The Board requests but does not require that 30 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The ARB encourages members of the public to bring any suggestions for modification of the proposed regulatory action to the attention of staff in advance of the hearing.

## **STATUTORY AUTHORITY AND REFERENCES**

This regulatory action is proposed under that authority granted in Health and Safety Code sections 39600, 39601, 39650, 39658, 39659, 39666, and 41511. This action is proposed to implement, interpret and make specific Health and Safety Code sections 39650, 39658, 39659, 39666, and 41511.

## **HEARING PROCEDURES**

The public hearing will be conducted in accordance with the California Administrative Procedure Act, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340) of the Government Code.

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action. In the event that such modifications are made, the full

regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15 days before it is adopted.

The public may request a copy of the modified regulatory text from the ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, CA 95814, (916) 322-2990.

## CALIFORNIA AIR RESOURCES BOARD

Catherine Witherspoon  
Executive Officer

Date:

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs see our Web –site at [www.arb.ca.gov](http://www.arb.ca.gov).*