



FACT SHEET

California Environmental Protection Agency
 **Air Resources Board**

THERMAL SPRAYING AIR QUALITY REGULATION

*This fact sheet contains a very brief explanation of a new regulation that applies to thermal spraying operations in California. For detailed information, please refer to the following web page:
<http://www.arb.ca.gov/coatings/thermal/thermal.htm> or contact Monique Davis at (916) 324-8182.*

What New Regulation Applies to Thermal Spraying in California?

On December 9, 2004, the Air Resources Board approved the adoption of a regulation called the "Airborne Toxic Control Measure to Reduce Emissions of Hexavalent Chromium and Nickel from Thermal Spraying" (referred to as the Thermal Spraying ATCM.) This regulation applies to thermal spraying operations throughout the State of California (e.g., flame spraying, twin-wire electric arc spraying, plasma spraying, and high-velocity oxy-fuel (HVOF) spraying.) The Thermal Spraying ATCM only applies to thermal spraying processes that use materials containing chromium, chromium compounds, nickel, or nickel compounds and it does NOT apply to portable operations. The regulation contains requirements for air pollution controls, permitting, monitoring, recordkeeping, and reporting.

Why Is ARB Regulating Thermal Spraying?

The Air Resources Board develops statewide regulations for the control of toxic air contaminants as a means of protecting public health. Thermal spraying can emit fumes that contain hexavalent chromium and nickel, which are toxic air contaminants. Both of these chemicals are human carcinogens that contribute to cancer and other adverse health impacts. Potential health risks from the inhalation of hexavalent chromium include: lung and nasal cancers; respiratory irritation; severe nasal and skin ulcerations and lesions; perforation in the nasal septum; liver and kidney failure; and birth defects. Inhalation of nickel can result in lung and nasal cancer; asthma and other respiratory ailments; and irritation and allergic sensitization.

Do I Need to Get a Permit for Thermal Spraying?

Thermal spraying operations in California must get a permit from their local air district, if they use materials containing chromium, chromium compounds, nickel, or nickel compounds. The Thermal Spraying ATCM does not contain a permitting requirement for portable thermal spraying operations, but some local districts may require a permit for portable activities. To find your local air district, check the following web page: <http://www.arb.ca.gov/app/dislookup/dislookup.php>. Contact information can be found at: <http://www.arb.ca.gov/capcoa/roster.htm>.

When Does the Regulation Become Effective?

As of April 8, 2005, the Thermal Spraying ATCM had not yet been formally adopted into the California Code of Regulations. It is expected that formal adoption will be completed by summer 2005. Important compliance dates to remember are provided below:

- Submit emission inventory to air district – October 1, 2005
- Submit air permit application (if you don't already have a permit) to air district – October 1, 2005
- Install air pollution enclosures and control devices – January 1, 2006

Can I Conduct Thermal Spraying Outside of a Booth?

No. The Thermal Spraying ATCM requires the use of enclosures, ventilation systems, and air pollution control devices that meet designated control efficiency standards.

How Does This Rule Apply to New Thermal Spraying Operations in California?

"New Thermal Spraying Operations" are those that start up as new businesses on or after January 1, 2005. (Please note that this does not include modification or expansion of existing thermal spraying operations and it only applies to operations that use chromium- or nickel-containing materials.) "New Thermal Spraying Operations" must have the maximum level of control (e.g., a HEPA filter), enclosure and ventilation system, and their requirements include the following: (1) They must be located outside of residential or mixed use zones and (2) They must be located at least 500 feet from the boundary of a residential or mixed use zone.

What Rules Apply to Portable Thermal Spraying Operations in California?

ARB is currently working with various stakeholders to address the issue of portable thermal spraying operations in California. In some air districts, portable thermal spraying operations are required to obtain permits and use enclosures that are vented to control devices. To ensure compliance, contact your local air district.