



California  
Air Resources Board  
Compliance Division

# Advisory

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## Potential Emission Source

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### Automotive Machine Shop Bake-Off Ovens Potential Sources of VOC and Toxic Emissions

A unit commonly known as a "bake-off" oven is used by as many as 100 automotive machine shops in California as a substitute for the solvent degreasing process. Engine blocks are placed in a bake-off oven designed to volatilize oil residues prior to engine rebuilding operations. The ovens typically operate in two stages at temperatures between 800F and 1400F. Control equipment does not appear to be associated with bake-off ovens.

The emission concern from bake-off ovens stems from both VOC and toxic compounds. Engine oils are volatilized through the process and emitted directly to the atmosphere; in addition, these oils may contain high concentrations of heavy metals. Because sludge from engine degreasing facilities can contain high concentrations of cadmium, chromium, and lead, it is possible that automotive machine shop bake-off ovens emit toxic air contaminants.

I would encourage your permit evaluation sections to investigate the applicability of district permitting requirements to this type of potential emission source. In addition, I recommend that the potential toxic air contaminant emissions from these sources be evaluated as a component of the district permit review process.

If you have any questions about this advisory, please contact me at (800) 952-5588.

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