



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

PACIFIC STEEL CASTING COMPANY  
(PSC) Site #A0703  
1333 Second Street  
Berkeley, CA 94710

January 5, 2009

## FACT SHEET

### Background

- Pacific Steel Casting Company (PSC) is located at Gilman and Second Streets near Highway 80, in Berkeley and is one of four largest surviving steel foundries in the country. PSC produces steel castings for bridges, wheelchair lifts, truck parts, agricultural equipment, valves for sanitary sewers, public water systems, the oil and gas industry, landfill compactors and structuring parts for buildings. The company was founded in 1934 and has grown steadily throughout the years, producing custom castings ranging in various sizes at its three plants. PSC describes its plants as follows:
  - Site #A0187, Plant I began operations in the 1930's making medium sized castings using primarily the Green Sand molding process. The binder for green sand molds is a combination of clay, water, and cornstarch compacted to form the molds.
  - Site #A0703, Plant 2 began operations in 1975. This plant uses a Shell process for the molding system. This sand molding process uses a binder mixed with the sand and baked to form the molds and cores for the castings.
  - Site #A1603, Plant 3 began operations in 1981. This plant primarily uses a phenolic urethane binder, a chemical binder mixed with the sand.
- Recycled scrap steel and other metals are turned into parts by: (1) creating a mold, which consists of sand bound together in a specific shape (the sand is typically mixed with an organic binder material for this purpose), (2) melting the metal in an electric arc furnace, (3) pouring the molten metal into the cavity of the mold, and waiting for the metal to cool and harden, (4) removing the cast component by shakeout of the sand mold, and (5) various finishing steps which can include grinding and heat treating of steel parts.
- The Bay Area Air Quality Management District (District) has a long history of regulating PSC's three steel foundry plants. From 1981 to 1991, the District took numerous enforcement actions to resolve odor problems, including obtaining an order of abatement in December 1984 from the Hearing Board. PSC installed odor abatement equipment (carbon adsorption units) in the Plants 1 in 1985 and in Plant 2 in 1991, and odor complaints dropped off significantly. From 1991 until November 2000, when the District Hearing Board removed the order of abatement, the District issued no public nuisance NOV's.
- Starting in 2005, odor complaints began to increase, perhaps as a result of increased foundry production in Plant 3, and PSC was issued six Notices of Violation (NOV) for

causing public nuisances for “burnt pot handle” odors, the first on March 23, 2005. Three more NOVs were issued, two for permit condition violations and one for an opacity violation, for a total of nine NOVs that year.

- In December of 2005, the District entered into a settlement agreement to resolve the nine NOVs. The District obtained a commitment from PSC to install odor abatement equipment at Plant 3, and prepare an Odor Management Plan to address odorous emissions from the facility. The Plant 3 odor abatement equipment included the installation of a fugitive emissions enclosure in the pouring cooling area, a carbon adsorption air pollution abatement device (carbon adsorption unit) and continuous monitoring to determine the need for carbon change-out. On October 15, 2006, PSC completed the installation of the Plant 3 carbon adsorption unit. Through this process the District was able to obtain a binding commitment to install abatement equipment on Plant 3 within 10 months, whereas installation of other controls took over 10 years for Plant 1 and Plant 2.
- The increase in Plant 3 emissions also resulted in the requirement for PSC to prepare a facility-wide Health Risk assessment (HRA) under the requirement of the State Air Toxic Hot Spots Program. The District notified PSC of this requirement in April 2005. The HRA was preceded by a comprehensive supplemental emissions testing program for the purpose of refining and improving the facility’s air toxic emissions inventory. In order to provide the community with a public input process, the District provided a public comment period for the HRA, and three preceding documents that establish the technical basis for the HRA (i.e., the HRA protocol, the supplemental emissions testing protocol, and the updated emissions inventory report).

### Public Comments/Issues

- Community members have expressed a variety of concerns over odors and health effects associated with PSC’s air emissions. The District held or participated in six community meetings in West Berkeley to discuss these issues over the last four years. The most recent meeting was on January 9, 2008.
- Community members have requested that ambient air monitoring be conducted in the vicinity of PSC. In response, the District installed a comprehensive air monitoring station located near the intersection 6<sup>th</sup> Street and Camelia Street in Berkeley, which became operational on December 12, 2007. On January 8, 2008, District staff conducted an informational meeting and tour for interested community members. The District will prepare a summary of the site’s air monitoring data, including comparisons to air quality standards and toxic health effects values, after a full year of data has been collected, analyzed, and quality assured. The District has also provided funding for the non-profit organization Global Community Monitor to collect air samples for various metals near PSC, but this monitoring provided very limited data and was not conducted in a manner necessary to evaluate health risks associated with PSC.

**Facility Status**

- The District approved PSC's final HRA on November 24, 2008. The maximum health risks are below levels that require mandatory risk reduction measures under District policies and procedures. However, quarterly public notification of health risks is required. PSC recently sent out the first notice. The notification area includes nearby businesses and one live \ work complex.
- Within the last year, PSC has implemented three significant emission reduction projects, which PSC entitles in the HRA as "Future Controlled Conditions." These projects are: (1) in Plant 1, the upgrade of capture and control of fugitive emissions from the electric arc furnace tap-out area, (2) in Plant 3, an upgrade project to abate fugitive emissions at the electric arc furnace, and (3) in Plant 3, a switch to a binder containing less volatile organic compounds.
- On October 3, 2008, the District approved PSC's Odor Management Plan, the last requirement of PSC's 2005 Settlement Agreement with the District.
- District inspection staff continues to conduct frequent compliance inspections of PSC. Air pollution complaints from the public have decreased since the installation of the carbon adsorption unit at Plant #3. The District continues to respond and investigate the public's air pollution complaints.