

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-090
NPDES NO. CA0027952

WASTE DISCHARGE REQUIREMENTS FOR

AMERICAN BRASS AND IRON FOUNDRY
7825 SAN LEANDRO STREET
OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. American Brass and Iron Foundry, hereinafter called the discharger has applied, by application dated August 11, 1987, for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
2. The discharger operates a cast iron foundry for the manufacture of cast iron fittings and pipes. Metals used are obtained from recycling of automobile engine blocks and other available scrap metals stored on the site in a scrap storage yard. The foundry is operated 10.5 hours a day, four days per week, averaging about 250 tons per day of castings. This facility is in the Metal Molding and Casting Category operation as classified by the United States Environmental Protection Agency and is defined in 40 CFR 464 as a grey iron foundry.
3. The discharger currently discharges the following wastes:
 - a. Waste 001 consists of non-contact cooling water from the operation of the furnaces, several air compressors, and well heat exchanger. The average flow is 723,780 gallons per day. About 12,000 gallons per day of stormwater runoff is also discharged with Waste 001 at the southwest corner of the plant into an adjacent ditch which flows through a storm culvert to Elmhurst Creek.
 - b. Waste 002 consists of contact process cooling waters from the wet dust scrubber and the pipe machines. The average flow is 238,140 gallons per day. This waste is discharged east of the discharge of Waste 001, and also flows into Elmhurst Creek via the same ditch.
 - c. All sanitary wastes are discharged to East Bay Municipal Utility District's sewage treatment plant.

3. The discharger has submitted a proposal to discharge only non-contact cooling water to surface waters. The process wastewater is being proposed for recycling following treatment.
4. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Leandro Bay, Elmhurst Creek, and contiguous waters.
5. The beneficial uses of San Leandro Bay, Elmhurst Creek, and contiguous water bodies are:
 - a. Water contact recreation
 - b. Non-contact water recreation
 - c. Navigation
 - d. Commercial and sport fishing
 - e. Wildlife habitat
 - f. Fish spawning and migration
 - g. Industrial service and process supply
 - h. Shellfish harvesting
 - i. Estuarine habitat
 - j. Preservation of rare and endangered species
6. The Basin Plan prohibits discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum dilution of 10:1, or into any nontidal water or dead-end slough or similar confined waters, or its immediate tributaries. The receiving water for this discharge is a drainage ditch, a nontidal water.
7. The Basin Plan provides that exceptions to this discharge prohibition will be considered for discharges where:
 - a. an inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means, such as an alternative discharge site, a higher level of treatment, and/or improved treatment reliability; or
 - b. a discharger is approved as a part of a reclamation project; or
 - c. it can be demonstrated that net environmental benefits will be derived as a result of the discharge.
8. The Board will consider granting an exception to the Basin Plan noted in Finding 6. above, on the condition that the discharger provides documentation of plant improvements which ensures that:
 - a. the quality of the non-contact cooling water and stormwater runoff are within water quality temperature and heavy metal limits;
 - b. the storm runoff management system is adequately segregated from contaminated areas;

- c. a Best Management Practice Plan is provided which prevents the potential for the release of pollutants to State waters from ancillary activities, including material storage areas, plant site runoff, in-plant transfer, process and material handling areas, loading and unloading operations, and waste treatment/containment areas; and
 - d. completion of the above improvements will be accomplished and implemented by no later than October 31, 1988; and
 - e. subsequent to the implementation of the said improvements, the discharger performs a one-year study of the effects of the discharge in Elmhurst Creek as outlined in the Provisions section of this Order.
9. Effluent limitation and toxic effluent standards established pursuant to Sections 301, 304, and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.
 10. Effluent limitation guidelines requiring the application of best available technology economically achievable (BAT) for this point source category have been promulgated by the U. S. Environmental Protection Agency. Effluent limitations of this Order are based on the Basin Plan, State Plans and Policies, expected operations performance, and best professional judgment. The limitations are considered to be those attainable by BAT, in the judgment of the Board.
 11. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000 of Division 13) of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
 12. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
 13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that American Brass and Iron Foundry, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of all process wastes or wastewater, or solvents, oils, or other products of petroleum origin to state waters is prohibited.
2. The discharge of stormwater runoff from areas in contact with process wastes, raw materials, solvents, oils, or other products of

petroleum origin stored or deposited on plant surfaces is prohibited.

3. The discharge of chemically treated cooling water is prohibited except as authorized by the Executive Officer. Such approval may be for non-metallic additives which are demonstrated by the discharger, to the satisfaction of the Executive Officer, to be biodegradable prior to discharge and will not cause any violations of permit conditions or the Basin Plan.

B. Effluent Limitations

1. The discharge of Wastes 001 and 002 shall be limited to non-contact cooling water and uncontaminated stormwater runoff.
2. The discharge of Wastes 001 and 002 containing constituents in excess of the following is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Average</u>		<u>Maximum Daily</u>
		<u>Weekly</u>	<u>Monthly</u>	
Oil and Grease	mg/l		10	20
Suspended Solids	mg/l	45	30	
Settleable Solids	ml/l/hr		0.1	0.2
Arsenic	ug/l			20
Cadmium	ug/l			10
Chromium	ug/l			11
Copper	ug/l			20
Lead	ug/l			5.6
Mercury	ug/l			1
Nickel	ug/l			7.1
Silver	ug/l			2.3
Zinc	ug/l			58

3. The maximum temperature of the effluent shall not exceed 86°F and shall not be greater than 4°F above the natural temperature of Elmhurst Creek.
4. The effluent shall not have a pH of less than 6.5 nor greater than 8.5.

5. In any representative set of samples, the discharge shall meet the following limit of toxicity:

The survival of three-spine stickleback and rainbow trout (or fathead minnow) in a 96-hour static-renewal bioassay of the effluent as discharged shall achieve a median of 90 percent survival for three consecutive samples and a 90 percentile value of not less than 70 percent survival for ten consecutive samples.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place.
 - a. Floating, suspended, or deposited macroscopic particulate matter of foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the surface:
 - a. Dissolved oxygen 5.0 mg/l minimum - median for any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than specified above, then discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. pH Variation from natural ambient pH by more than 0.5 pH units.

3. The discharger shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water, or amendments thereto, the Board will revise and modify this Order in accordance with such standards.

D. Provisions

1. The discharger shall comply with all sections of this Order immediately upon its adoption by the Board, except as provided below.
2. The discharger shall comply with the effluent limitations and prohibitions of this order by October 31, 1988. Compliance shall be achieved in accordance with the following time schedule in Provisions 3 and 4 below.
3. Pursuant to Finding 8. of this Order, the discharger shall submit documentation of plant improvements in accordance with the following time schedule:
 - a. Submit a workplan and progress report to the Executive Officer by July 31, 1988;
 - b. Submit a report by September 31, 1988 on the completed improvements;
 - c. Submit a Best Management Practice (BMP) plan to the Executive Officer by September 31, 1988. The BMP plan shall be consistent with the EPA regulations 40 CFR 464125, Subpart K and the general guidance contained in the "NPDES Best Management Guidance Document", EPA Report No. 600/9-79-045, December 1979 (revised June 1981). The BMP shall specifically address segregation of non-contaminated stormwater from contaminated areas, segregation and/or recycle of the cooling water. A BMP program acceptable to the Executive Officer shall be implemented by October 31, 1988.
 - c. Submit a report on full compliance achieved by October 1, 1988.
4. Pursuant to Finding 8.e. of the Order, the discharger shall submit to this Board, by December 15, 1989, a technical report on the effects of year-round discharge of the non-contact cooling water into Elmhurst Creek; including measures taken or proposed to assure that pollutants in the waste discharge will be maintained at levels which will enhance water quality and quantity in Elmhurst Creek. This study may be used as part of the discharger's application for exception from the applicable Basin Plan prohibitions.
5. The discharger shall prepare and update October 31, of each year, a contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan

will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

6. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Board pursuant to EPA regulations 40 CFR 122.62, 122.63, and 124.5. Upon review of the data submitted as part of this program, the Board may at any time, revise the Order to include effluent limits for those constituents determined to be of concern.
7. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986.
8. All applications, reports, or information submitted to the Regional Board shall be signed and certified pursuant to Environmental Protection Agency regulations (40CFR 122.41K).
9. Pursuant to Environmental Protection Agency regulations (40 CFR 122.42(a)), the discharger must notify the Regional Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin, the use or manufacture of a pollutant not reported in the permit application, or (2) a discharge of a toxic pollutants not limited by this permit has occurred, or will occur, in concentrations that exceed the specified limits.
10. This permit shall be modified or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b) (2) (c), and (d), 303, 304(b) (2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutant not limited in the permit.The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.
11. This Order expires May 18, 1993. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
12. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten days after date of its adoption, provided the Regional Administrator for the Environmental Protection Agency has no objection.

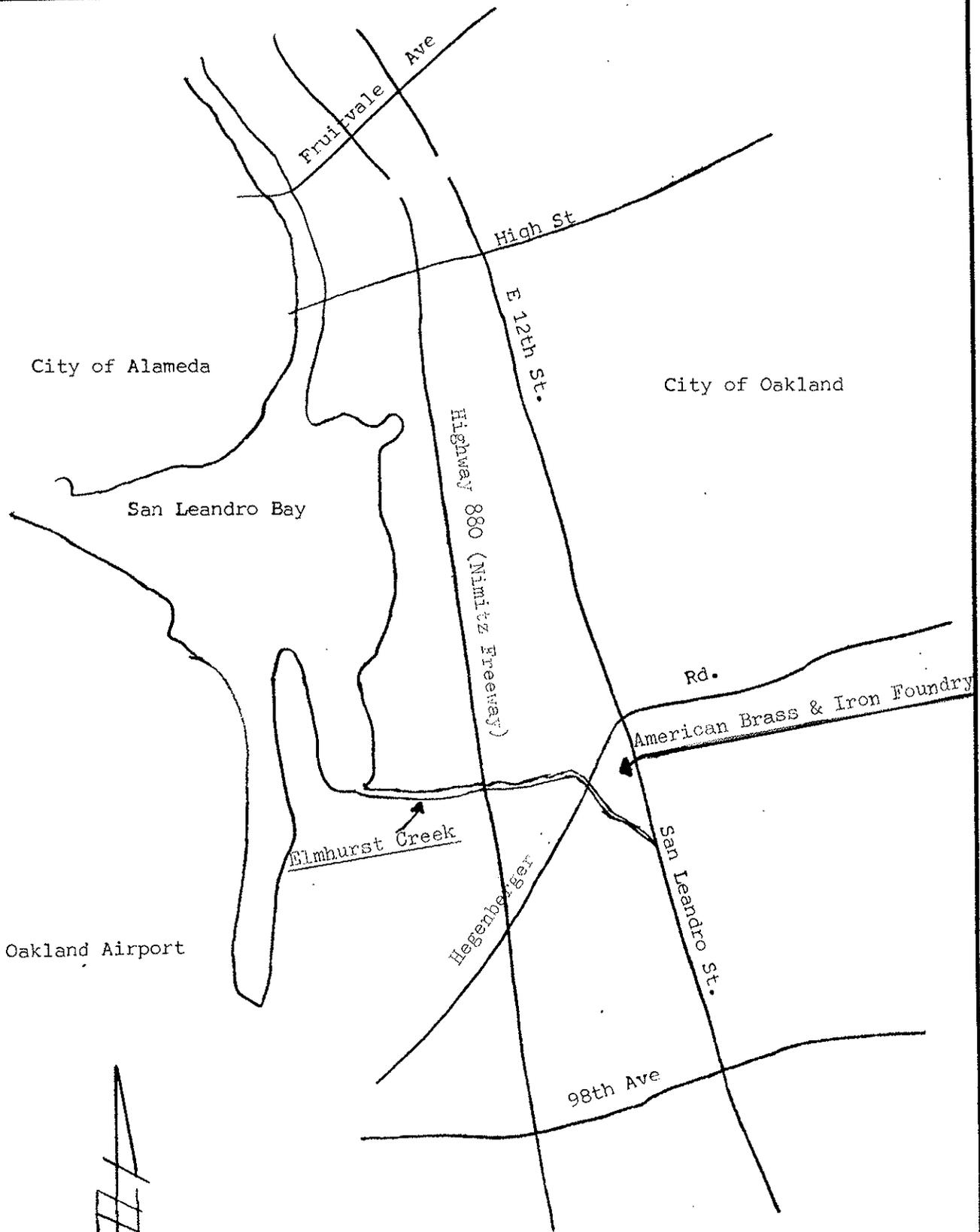
I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 15, 1988.



ROGER B. JAMES
Executive Officer

Attachments:

Location Map
Standard Provisions &
Reporting Requirements, December 1986
Self-Monitoring Program
Resolution No. 74-10



No Scale

STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION		
AMERICAN BRASS & IRON FOUNDRY 7825 San Leandro Street Oakland, Alameda County		
DRAWN BY:	DATE:	DRWG NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

AMERICAN BRASS AND IRON FOUNDRY

OAKLAND, ALAMEDA COUNTY

NPDES NO. CA0027952

ORDER NO. 88-090

CONSISTS OF

PART A, (dated 12/86)

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
I	At any point in the water supply intake system prior to any usage of intake water.

B. EFFLUENT

Station	Descriptions
E-001	At a point in the 001 outfall for the non-contact cooling water along the southwest corner of the plant, between the point of discharge into the drainage ditch and the point at which all waste tributary to that outfall is present.
E-002	At a point in the 002 outfall for the process water at the southeast side of the plant, between the point of discharge into the drainage ditch and the point at which all waste tributary to that outfall is present.

C. RECEIVING WATERS

Stations	Descriptions
C-1	At a point in Elmhurst Creek, located 5 feet offshore, and 10 feet easterly from Outfall 001.
C-2	At a point in Elmhurst Creek, located 5 feet offshore, and 10 feet westerly from Outfall 001.

II. SCHEDULE OF SAMPLING, ANALYSIS, & OBSERVATIONS

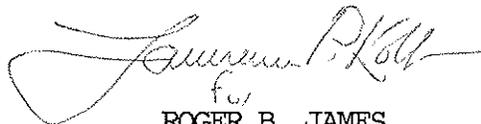
1. The schedule of sampling, measurements and analysis shall be that given as Table 1.
2. Sample collection, storage and analysis shall be performed according to the latest 40 CFR Part 136 or other methods approved and specified by the Board.

III. MISCELLANEOUS REPORTING

1. Strip charts of the effluent pH record must be retained with other laboratory records, and made available for inspection by Board staff.
2. The discharger shall retain and submit (when required) the following information concerning the monitoring program for organic and metallic pollutants.
 - a. Description of sample stations, times and procedures.
 - b. Description of sample containers, storage and holding time prior to analysis.
 - c. Quality assurance procedures together with any test results for replicate samples, sample blanks, and any quality assurance tests, and the recovery percentages for the internal and surrogate standards.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 88-090.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revision will be ordered by the Executive Officer.



ROGER B. JAMES
Executive Officer

6/17/88
Effective Date

Attachment: Table 1

**TABLE I (CONTINUED)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS**

Sampling Station	E-001		E-002		All C						
	C-12	O	C-12	O							
Mercury (ug/l & kg/day)	W/M		W/M								
Nickel (ug/l & kg/day)	W/M		W/M								
Zinc (ug/l & kg/day)	W/M		W/M								
PHENOLIC COMPOUNDS (mg/l & kg/day)											
All Applicable Standard Observations		W		W		W					
Bottom Sediment Analyses and Observations											
Total Identifiable Chlorinated Hydrocarbons (ng/l & kg/day)											

LEGEND

TYPES OF SAMPLES

C-12 = composite sample - 12 hours used when discharge does not continue for 24-hour period.
 G = grab sample
 O = observation

TYPE OF STATION

I = intake and/or water supply stations
 E = waste effluent station
 C = receiving water station
 B = bottom sediment station

FREQUENCY OF SAMPLING

C = continuous (may use influent flow meter for measurement of effluent discharge flows)
 2/M = 2 days per month for the first 3 months; and if consistent compliance with effluent limits is shown, monthly sampling thereafter. If non-compliance is shown, frequency will revert to 2 days per month.
 W/M = week for the first 3 months; and if consistent compliance with effluent limits is shown, monthly sampling thereafter. If non-compliance is shown, frequency will revert to weekly.
 W = once each week M = once each month

FOOTNOTE

- (1) Oil & Grease sampling shall consist of 3 grab samples taken at 2-hour intervals during the sampling day, with each grab being collected in a glass container. The entire volume of each sample shall be composited prior to analysis. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
- (2) The bioassay test shall be a static-renewal test using two test fish species (stickleback, and rainbow trout or fathead minnow). In the static renewal test, the test water is replaced with daily 24-hour composite effluent samples.
- (3) Grab sample when cooling tower blowdown is being discharged to outfall.