



San Diego County Air Pollution Control District
10124 Old Grove Road, San Diego, CA 92131
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www.sdapcd.org

Sectors: 5, P
Site Record: APCD1988-SITE-07300

Application Record: APCD2022-RRP-990008



Pacific Ship Repair & Fabrication
1625 Rigel Street
San Diego, CA 92113

David Bain
1625 Rigel Street
San Diego, CA 92113

AUTHORITY TO CONSTRUCT

EXPIRES: July 19, 2024

After examination of your Application for an Air Pollution Control District (hereinafter referred to as "the District") Authority to Construct and Permit to Operate for equipment located at the above location, the District has decided on the following actions:

Authority to Construct is granted pursuant to Rule 20 of the Air Pollution Control District Rules and Regulations for equipment to consist of:

Metal Production Fabrication Facility consisting of:

1. One (1) enclosed Abrasive Blasting room equipped with HEPA filters

Equipment: enclosed abrasive blasting booth equipped with baghouse and HEPA filters
Manufacturer: CLEMCO
Dimensions: 20ft X 12ft X 12ft H
Exhaust Stacks: 1
Exhaust Flow Rate: 7800 CFM
Stack Height: 5ft

2. Various Welding Operations conducted in an enclosed booth or curtain shrouded areas equipped with fume extractors and HEPA filters:

Building 15: Enclosed booths with terminal hoods and HEPA filters
Dimensions: (TBD)
Exhaust Stack: 1
Exhaust Flow Rate: 1500 CFM
Stack Height: 21ft
Stack Diameter: 1.5 ft
Vertical Stack, Capped

Building 16: Adjustable curtain shrouds with one (1) or more portable fume extractors equipped with HEPA filters
Manufacturer: FumeDog
Model: FD-PT-CW-87S
Serial #:(TBD)
Dimensions: 40.5" X 26" X 31.5"
Fume Intake: 1200 CFM
or equivalent, as approved by the District in writing prior to installation

Building 24: Adjustable curtain shrouds with seven (7) or more portable fume extractors equipped with HEPA filters
Manufacturer: FumeDog
Model: FD-PT-CW-87S
Serial #:(TBD)
Dimensions: 40.5" X 26" X 31.5"
Fume Intake: 1200 CFM
or equivalent, as approved by the District in writing prior to installation

This Authority to Construct is issued with the following conditions:

1. Abrasive blasting equipment shall be maintained and operated so that there is no visible leakage of air contaminants to the atmosphere prior to their treatment in the air pollution control system. (Rule 1210)

2. Prior to installing or operating any emission controls or capture system other than what is specified in the equipment description of this permit, the permittee shall submit a proposal to the District in writing of the alternative design and receive approval from the District, in writing, prior to beginning installation or operation of the proposed equipment. The notification shall include all information necessary to demonstrate that the proposed alternative will achieve equivalent or better performance than what is listed in the equipment description of this permit. If the District determines that the proposed alternative is not equivalent, the permittee shall submit a subsequent proposal to the District and receive approval in writing prior to beginning installation or operation. (Rule 10, 1210)
3. All welding operations conducted at this facility which uses rods or wires that contain Nickel or Chromium shall be captured and controlled by a portable or stationary fume extraction device listed in the equipment description, or an equivalent device approved by the District in writing, and shall meet all applicable permit requirements. (Rule 1210)
4. Before beginning daily welding operations controlled by a portable or stationary fume extractor, the welding operator shall conduct a visual inspection of the system and ensure that the airflow and distance requirements of this permit will be met. Each fume extractor shall be equipped with a physical or electronic log and the operator shall note this inspection in the log. (Rule 1210)
5. There shall be no visible emissions of welding fumes from the doors, windows, or vents of any building in which welding is conducted. (Rule 1210)
6. All abrasive blasting equipment and welding operations described in this permit shall be vented to certified high efficiency particulate air filters (HEPA), with a minimum control efficiency of 99.97% for all particles greater than 0.3 microns. A copy of the documentation demonstrating the filters installed meet HEPA standards shall be maintained on site and shall be made available to the District upon request. (Rule 1210)
7. Differential pressure gauges shall be installed across all the HEPA filters and be operational at all times the devices are in operation to measure the pressure drops across the filters. Pressure drop across the filter media must be maintained between the following limits as per manufacturer specifications:

Dry Filter: 5 and 7.6 inches of water
HEPA Filter: 1 and 3 inches of water

Pressure drop for each filter system shall be monitored and recorded at least once per day of equipment use. Any corrective action, filter removal, replacement, or maintenance shall be recorded on the date it occurred in addition to daily records of pressure drop. All records shall be available on site and made available to the District upon request (Rule 50, Rule 1200, Rule 1210)

8. Air pollution control equipment shall be maintained in good operating condition and shall be always functioning according to manufacturer's instructions or the approved site-specific operating and maintenance practices (SOP) when the process equipment is in operation, except as otherwise allowed in this permit. The manufacturer's specifications and site-specific operation and maintenance plan shall be maintained on site and made available to the District upon request. (Rule 1210)
9. Each welding fume extractor and filter assembly shall be maintained and operated so that there is no leakage of air contaminants to the atmosphere after capture by the fume extractor and prior to their treatment in the air pollution control system. (Rule 1210)
10. The terminal hood and/or fume extractors specified in this permit for each welding location specified in this permit shall be in operation at all times when the owner or operator is conducting welding required to be captured and controlled by the conditions in this permit. The capture efficiency of the collection systems for each control system shall be a minimum of 90% by weight. The owner or operator shall demonstrate compliance with this condition by performing an initial performance test as described in this permit. The required source test shall also establish the following parameters unless otherwise agreed upon in the approved test plan: appropriate operating ranges for air intake rate (or related surrogate), distance from weld, and any other relevant operating parameters during the performance test. Those parameters will be incorporated into this permit and be required to be continuously maintained within the acceptable ranges after the initial performance test to ensure all operations are within the specified appropriate parameters and limits. (Rule 1210)

11. Unless otherwise approved in writing by the District, the initial performance test for terminal hoods and fume extractors to measure capture efficiency shall be conducted within 90 days of the issuance of this authorization. Testing shall be either conducted or witnessed by District personnel at the owner or operator's expense and scheduled with the District no later than 14 calendar days prior to the test unless otherwise agreed upon in writing. This test shall be conducted according to all of the following requirements:
 - a. Each test must consist of a minimum of 3 runs and the duration of each run must be representative of typical welding operations.
 - b. For identical equipment, the testing may be conducted on a single or representative sample of fume extractors, as agreed by the District in writing.
 - c. The test shall utilize either a CARB, EPA or District approved particulate sampling methodology or visible emissions methodology such as EPA Method 22.
 - d. Testing shall be conducted by either the District or a third party contractor and witnessed by the District. All costs are the responsibility of the permittee.
 - e. The owner or operator shall allow District to photograph and/or video tape the testing, if requested by District staff.
 - f. Testing may be performed using welding fumes or a representative surrogate such as artificially generated smoke.
 - g. During each test, the airflow rate and distance from weld shall be recorded.
 - h. Appropriate equipment for testing around welding operations including appropriate Personal Protective Equipment (PPE) and enclosures shall be provided by the permit holder as necessary. (Rule 1210)
12. The initial performance test shall be performed at the permittee's expense according to a protocol approved in writing by the District. The protocol shall be submitted to or otherwise made available to the District no later than 45 days prior to the date of the test. The protocol must be developed by the permittee, or the District if agreed upon in writing, and all costs for development will be paid by the permittee. Additionally, the permittee is ultimately responsible for compliance with this permit, including if electing to ask the District to prepare the test protocol. The protocol shall contain at a minimum:
 - a. All procedures necessary to conduct the test in accordance with this permit.
 - b. Description of how all items described in this permit as required during the test will be measured, monitored and complied with or met.
 - c. Safety and operational procedures for conducting testing around active welding, unless testing will use a surrogate.
 - d. Locations of equipment to be tested and required testing apparatuses. (Rule 1210)
13. When each air pollution control system is in operation, the minimum airflow and maximum distance from the intake of each air pollution control system to the point of welding shall be maintained within the levels determined during the initial performance test which demonstrated compliance with 90% capture efficiency, and which will also be incorporated into the final permit to operate for this equipment. (Rule 1210)
14. In the event the initial performance test fails to demonstrate capture efficiency for each control system to be a minimum of 90% by weight, the owner or operator shall, within 60 days of receiving a notice from the District, submit an amendment to the Risk Reduction and Audit Plan in accordance with Rule 1210(e)(10). The plan amendment shall:
 - a. Provide an alternative to meet the required control efficiency; or,
 - b. Demonstrates the calculated health risks will be reduced below the applicable significant risk thresholds and meet all requirements per Rule 1210 (e)(2). (Rule 1210)
15. The permittee shall reduce the health risk(s) below the significant risk threshold(s), as specified in Rule 1210, within 5 (five) years from the date this Authority to Construct is issued. (Rule 1210)
16. Emissions of Nickel and Hexavalent Chromium toxic air contaminants (TACs), as defined in District Rule 1200 (Revisions Effective 02/26/2021), into the atmosphere shall not exceed the following:
Nickel (CAS #: 7440-02-0): 9.39E-04 lbs/continuous operating hour
Hexavalent Chromium (Cr(VI), CAS #: 18540-29-9): 6.88E-02 lbs/per twelve (12) consecutive month period
Compliance with these limits shall be demonstrated through record keeping and District defined emissions calculation method established in the conditions of this Permit. (Rule 1200 and 21)

17. Daily Hexavalent Chromium and hourly Nickel emissions shall be calculated as follows:

$$\text{Daily Emissions} = U \times F \times (1-e)$$

$$\text{Hourly Emissions} = U / H \times F \times (1-e)$$

Where U = Welding material usage minus waste (lb material/day)

H = Number of hours in the day's shift (hr/day)

F = Welding emission factors specific to process and material (lb pollutant emitted/lb rod used) where only the latest approved San Diego County Air Pollution Control District emission inventory factors or alternative emission factors approved by the District in writing shall be applied

e = Overall percent removal efficiency (capture efficiency X control efficiency)

Emissions for each 12-month period shall be calculated by summing the daily emissions for each month included in that period. (Rule 1210)

18. The owner or operator shall establish an emissions control plan manual and training program for welding operations which educates all welding operators on the emission control requirements in this permit including, at a minimum, operation of the welding fume extractors and acceptable distances and airflow rates and how to conduct welding operations under the operational requirements of this permit. Prior to conducting any welding operations, each operator shall be certified as having completed this program and the permittee shall maintain records of this for each operator. (Rule 1210)
19. The owner or operator shall comply will all applicable provisions of Rule 1210.
20. The permittee shall maintain records for the equipment, material used and processes described in this permit. The records shall include the following information (Rule 21 and 1210):
- Daily usage records of all abrasive blasting and welding process materials;
 - Type of welding process used per material and location(s);
 - Duration of each type of welding and time(s) of day;
 - Current manufacturer specification sheets, material safety data sheets (MSDS), product data sheets, or technical bulletins for all materials in use, which shall list all components within each welding material and shall include content weight or weight percentage of toxic air contaminant (TAC) contained in each material;
 - Records of the dates and times when the portable or stationary fume extraction units were not used during a welding operation and the MSDS or data sheets for the welding rods or wires used during that period that demonstrates they did not contain any Nickel or Chromium;
 - Daily pressure drops for the dry filters on all control systems operated that day;
 - Records of welding operator checks of fume extractors prior to use;
 - Maintenance and repair records for any of the equipment described in this permit;
 - Hourly Nickel emissions and daily Hexavalent Chromium emissions calculated in accordance with this permit; and,
 - A copy of the emission control plan manual and training program for welding operations.
21. At no time shall the subject equipment cause or contribute to a public nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the permittee will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment the permittee shall apply for and obtain an Authority to Construct for all such modifications prior to making any physical change. (Rule 51)
22. All required records for this operation shall be maintained on-site for at least five (5) years and shall be made available to the District upon request.
23. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
24. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
25. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

This Authority to Construct does not authorize operation of the above-specified equipment until written notification has been provided to the District indicating that construction (or modification) has been completed in accordance with this Authority to Construct. Upon submission of this notification, temporary Permit to Operate shall take effect and will remain in effect, unless withdrawn or modified by the District, until the equipment is inspected by the District and a revised temporary permit (Startup Authorization) is issued or a Permit to Operate is granted or denied.

This Authority to Construct shall be posted on or within 25 feet of the above described equipment or maintained readily available at all times on the operating premises.

Upon completion of construction (or modification) in accordance with this Authority to Construct, and prior to commencing operation, the applicant must complete and mail, deliver or email to apcdpermits@sdapcd.org the enclosed Construction Completion Notice to the District. After mailing, delivering or emailing the notice, the applicant may commence operation of the equipment. Operation must be in compliance with all the conditions of this Authority to Construct and applicable District Rules.

This Authority to Construct does not relieve the holder from obtaining permits or authorizations, which may be required by other governmental agencies. This Authority to Construct is not authority to exceed any applicable emission standard established by this District or any other governmental agency. This authorization is subject to cancellation if any emission standard or condition is violated.

Within 30 days after receipt of this Authority to Construct, the applicant may petition the Hearing Board for a hearing on any conditions imposed herein in accordance with Rule 25.

This Authority to Construct will expire on 7/19/2024 unless an extension is granted in writing.

This is not a Permit to Operate. Please be advised that installation or operation of this process or equipment without written authorization may be a misdemeanor subject to fines and penalties.

If you have any questions regarding this action, please contact me at (858) 586-2703 or via email at Allison.Weller@sdapcd.org.



Allison Weller
Associate Engineer

CC: Compliance Division