



Rashi Kesarwani  
Councilmember District 1

CONSENT CALENDAR  
September 28, 2021

TO: Honorable Mayor and Members of City Council

FROM: Councilmember Rashi Kesarwani (Author), Councilmember Lori Droste (Co-Sponsor), Councilmember Terry Taplin (Co-Sponsor), and Councilmember Wengraf (Co-Sponsor)

SUBJECT: Referral to Strengthen Public Health and Environmental Impact Mitigation for Industrial Facilities in the Manufacturing Zone

RECOMMENDATION

Refer to the City Manager to:

- Establish a procedure for enhanced review of use permits in the manufacturing zone for industrial facilities—upon initial submission or upon submission of an amended use permit—in order to ensure public health and environmental impacts are appropriately mitigated as a condition of the use permit. Further, if appropriate, consider mitigation that includes the use-permit applicant contracting with a certified third-party to install air quality monitoring device(s) that can enable periodic reporting on pollutants relevant to the particular industrial process proposed in the initial or amended use permit.
- Explore feasibility of increasing penalty fee schedule as a deterrence for use-permit violations related to public health and environmental impacts, such as air, noise, and water pollution.

CURRENT SITUATION AND ITS EFFECTS

Industrial facilities can be in compliance with the requirements of their use permit without necessarily utilizing industry-standard best practices intended to safeguard public health and mitigate environmental impacts of their operations. For example, the City's use permit for the LeHigh Hanson asphalt plant requires an enhanced enclosure for the asphalt loading area, but it does not require installation of a Blue Smoke Abatement System to control the emission of pollutants. The City Planning Department issues a use permit in perpetuity, and therefore, is unable to change the conditions for a use permit unless the applicant seeks a use-permit amendment in

order to alter their operations in some capacity. In effect, use permits issued many years ago for industrial facilities lack a clear mechanism to be updated in order to adapt to evolving technologies and industry standards. While the California Air Resources Board (CARB) is the primary agency responsible for protecting the public from the harmful effects of air pollution, we note that CARB does not regulate asphalt plants. This Council referral seeks to ensure that initial and amended use permit applications from industrial facilities receive appropriate review and include conditions that safeguard public health and mitigate any environmental impacts.

Possible appropriate mitigation to safeguard public health and mitigate environmental impacts may include:

- Requirements to install new equipment and/or technologies to address air, noise, and water pollution as well as disposal of hazardous materials;
- State-of-the-art containment and enclosure mechanisms in order to ensure that release of noise, particulate matter, and/or chemical compounds are reduced or eliminated;
- Requirements to install monitoring systems in order for third parties to easily discern when pollutants exceed regulatory limits;
- Increased penalty fees for violations as a means of deterring unwanted behavior by industrial actors.

## BACKGROUND

Portions of West Berkeley are zoned specifically for heavy manufacturing and industrial uses. Over time, the area has been home to an array of industries that have provided blue-collar union jobs, such as the now-closed Pacific Steel Casting and Macauley Foundry. Currently, the LeHigh Hanson Aggregates asphalt plant—located on Virginia Street between Second and Fourth streets—and Berkeley Forge—located on Eastshore Highway between Camelia and Gilman—continue to operate in West Berkeley. Over the years, industrial facilities in West Berkeley have elicited neighbor complaints and concerns related to public health and environmental impacts, such as air and noise pollution.

### ***History of Impacts from LeHigh Hanson (formerly Berkeley Asphalt)***

In 1999, the Oceanview Neighborhood Association entered into a settlement agreement (attached) with both the City of Berkeley and Berkeley Asphalt Company (now LeHigh Hanson) to specify terms for mitigating noise and air quality impacts on neighbors. The terms of the agreement focused on: traffic patterns in order to prevent trucks from driving through residential neighborhoods; air quality controls to reduce dust and odors, such as enclosures for loading facilities; noise mitigations and sound barrier installations; and implementation of a complaint and response mechanism for resident concerns.

In 2015, Councilmembers Linda Maio and Lori Droste presented two informational status reports on West Berkeley Industries (attached) as a result of continued

complaints from West Berkeley neighbors residing in close proximity to Pacific Steel Casting and LeHigh Hanson. According to a January 2015 Council item submitted by the Community Health Commission, more than 100 complaints were made in the 2012 to 2013 timeframe by Berkeley residents and community groups to the Bay Area Air Quality Management District (BAAQMD)—the regional air pollution control agency charged with regulating pollution emissions in the nine Bay Area counties.

Most recently, beginning in the end of October 2020, the office of Councilmember Rashi Kesarwani began receiving multiple complaints of a noxious, sulfuric smell, most strongly noticed in West Berkeley, though also experienced as far east as neighborhoods surrounding the North Berkeley BART station. According to a BAAQMD December 9, 2020 fact sheet (attached), the agency fielded more than 190 complaints about this odor in less than a two-month span of time.

### ***Current Enforcement Actions Against LeHigh Hanson***

While BAAQMD has regulatory authority over industries that negatively impact air quality, the City of Berkeley regulates the 1999 Settlement Agreement and use permit conditions. As the noxious odors continued into February 2021, BAAQMD issued four Notices of Violation (NOVs) related to nuisances due to odors on Dec. 3, 2020 through Feb. 5, 2021. The last reported complaint about the odor occurred on Feb. 12, 2021. BAAQMD staff indicated that the facility's plan to construct an enhanced enclosure for loading, in addition to adding a Blue Smoke Abatement System would help alleviate the odors, according to April 2, 2021 correspondence from Planning Director Jordan Klein.<sup>1</sup>

The City of Berkeley began issuing NOVs on Jan. 11, 2021 as recent inspections uncovered insufficient enclosures of the asphalt truck loading area. LeHigh Hanson was required to resubmit application materials for a building permit for construction of an enhanced enclosure as well as a Blue Smoke Abatement System that the company was opting to install in the loading area. As LeHigh Hanson failed to resubmit the materials by the stated February 1, 2021 deadline, the City issued a citation warning on February 10, 2021, indicating that if the company failed to comply within 15 days, the City would issue daily administrative citations with penalties. Additionally, a second violation was added to the warning related to their failure to entirely vacuum sweep the required portion of their facility to control dust. LeHigh Hanson was able to comply shortly thereafter, resubmitting their plans by Feb. 16, 2021; the city approved the plans on March 1, 2021. Two days later, on March 3, the City issued another citation warning to complete construction and inspections associated with the enhanced enclosure system and Blue Smoke Abatement System. While the asphalt plant was able to complete construction of the enhanced enclosure shortly thereafter, it wasn't until July 2021 that the company secured the

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<sup>1</sup> See Planning Director Jordan Klein's letter to the Sierra Club regarding enforcement of pollution control measures at Lehigh Hanson's asphalt plant, attached.

permitting for the electrical work for the Blue Smoke Abatement System and made it operational. In total, City staff conducted seven different inspections from Dec. 2020 to April 2021.

### ***Health Outcomes in West Berkeley***

One of the major contributing causes of asthma, which itself is a leading cause of childhood hospitalizations, is air pollution, according to Berkeley's 2018 Health Status Report.<sup>2</sup> The report finds that the West Berkeley zip code 94710 has the highest rates of asthma hospitalizations, particularly among children 0 to 14. The report also finds significant racial disparities, with asthma rates among our Black residents 10 times higher than white residents.<sup>3</sup> Given these health outcomes, we find that it is incumbent upon the City to fully exercise its permitting authority in order to ensure that industrial facilities mitigate any public health and environmental impacts.

### FISCAL IMPLICATIONS

Staff time.

### ENVIRONMENTAL IMPACTS

Strengthening the requirements of a use permit for industrial facilities is likely to result in mitigations that enhance environmental indicators, leading to a cleaner, safer environment for all.

### CONTACT PERSON

Councilmember Rashi Kesarwani, District 1 (510) 981-7110

### Attachments:

1999 Settlement Agreement

May 26, 2015 Status Report: Berkeley Asphalt; Pacific Steel Casting: Air Quality Inquiries (#38)

July 14, 2015 Status Report: West Berkeley Industry (#69)

January 20, 2015 Community Health Commission Council item (#25): West Berkeley Industrial Plants Air Quality

Bay Area Air Quality Management's Fact Sheet on Berkeley Asphalt, Dec. 9, 2020

Planning Director Jordan Klein's email to the Sierra Club regarding enforcement of pollution control measures at Lehigh Hanson's asphalt plant

<sup>2</sup> See [City of Berkeley Health Status Report 2018](#), pages 42 & 43

<sup>3</sup> [City of Berkeley Healthy Status Report 2018](#), p. 43

**SETTLEMENT AGREEMENT**

WHEREAS, Communities for a Better Environment ("CBE") brought an action in the Alameda County Superior Court against the City of Berkeley ("City") under the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq., for approving modifications to Use Permit #3033, which enables Berkeley Asphalt Company ("BAC") to replace its pug mill and expand its operation, without preparing an environmental impact report;

WHEREAS, BAC, a company in the business of making asphalt located at 699 Virginia Street, intends to expand operations by inter alia increasing nighttime and weekend production;

WHEREAS, Berkeley Ready Mix Company ("BRM"), a business which manufactures ready mix cement, operates a facility located at 699 Virginia Street, Berkeley, California;

WHEREAS, in October 1998, the Ocean View Neighborhood Association ("ONA") filed a public nuisance complaint with the City against BAC and BRM (collectively referred to as "BARM");

WHEREAS, CBE, ONA, BARM, and the City (collectively referred to as "the parties") have met to discuss ways to resolve the disputes now pending between them;

WHEREAS, the parties agree to this Settlement Agreement to resolve all of CBE's CEQA claims against the City and ONA's now pending administrative public nuisance complaint against BARM; and

THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Traffic. The City has proposed to design and install a traffic roundabout at the intersection of the Eastshore Freeway a.k.a. Frontage Road and Gilman Street ("Gilman Interchange Project"). The City will use its best efforts to obtain completion of the Gilman Interchange Project within the following timeline:

- (a) No later than September 1999, retain consultant to design traffic roundabout;
- (b) No later than November 1999, consultant completes design;
- (c) No later than January 2000, confirm preferred design and request CalTrans to prepare project report;
- (d) No later than February 2000, retain environmental consultant;
- (e) No later than March 2000, CalTrans completes project report;
- (f) No later than April 2000, CalTrans begins preparing Cooperative Agreement;
- (g) No later than May 2000, CalTrans completes environmental analysis;
- (h) No later than June 2000, CalTrans completes Cooperative Agreement;
- (i) No later than August 2000, CalTrans and the City sign Cooperative Agreement after City Council approval;
- (j) No later than September 2000, project bid;
- (k) No later than November 2000, construction begins;
- (l) No later than February 2001, project completed.

The parties recognize that the foregoing schedule is subject to a number of contingencies that are not within the control of the City and that completion of the proposed improvements may consequently take longer. First, actions by CalTrans are not within the City's control and may take longer than estimated. Second, CalTrans may ultimately not approve the City's proposal, thus creating a delay while the City develops an alternative proposal. Third, the time allotted for environmental review assumes that the project will not require an environmental impact report ("EIR"). However, if CalTrans, other agencies, or the public demands an EIR and produces substantial evidence that the proposal may have a significant adverse impact on the environment, an EIR will be required. This will also delay completion.

The parties further agree to use their best efforts to encourage CalTrans to meet the schedule set out herein.

2. The parties agree that upon completion of the Gilman Interchange Project, BARM will direct all trucks traveling to and from the BARM facilities to and from I-80 and I-580 to use the Frontage Road except trucks going to jobs in Berkeley.

3. Interim Measures to Divert Truck Traffic Away from Residential Blocks and to Eastshore Freeway and Gilman Street. BARM shall be responsible for assuring that all trucks traveling to and from its facility use exclusively the Gilman/I-80 interchange, Frontage Road and Cedar Street to gain access to, or return from I-80 or I-580; except that trucks traveling during the peak commute hours of 4 p.m. to 6 p.m., and trucks which are exclusively bound for jobs within Berkeley, are not subject to the limitations of this paragraph.

4. BARM shall institute the following measures to increase compliance with the established truck routes:

- (a) Notify customers in regular invoices of the established truck routes that must be taken by means of the notice attached hereto as Exhibit A or a substantially similar notice;
- (b) Inform customers by means of a notice such as the one attached hereto as Exhibit A or a substantially similar notice that after three violations of the truck routing requirements, customers will no longer be allowed to send trucks to BARM;
- (c) Notify suppliers of the established truck routes in a letter such as the one attached hereto as Exhibit B or a substantially similar notice;
- (d) Give a flyer with the established truck route to each truck as it leaves the BAC or BRM facility;
- (e) Post a visible, lighted sign at the exit gate clearly stating the established truck routes.

5. BARM shall perform the activities listed on the Traffic Compliance Checklist, jointly developed by the parties, attached hereto as Exhibit C. The Traffic Compliance Checklist

contains tasks agreed upon by the parties in this Agreement in addition to activities identified to be necessary to accomplish the agreed upon tasks. The BARM manager should review and complete the checklist daily to ensure that the activities listed therein are completed as required. This review shall include an inspection of each of the logs referred to in the Traffic Compliance Checklist.

6. BARM and the City shall implement a complaint and response mechanism for complaints about truck traffic as follows:

- (a) BARM will have either an employee or have a Pacific Bell voicemail system answer its regularly listed telephone number, (510) 526-1611, at all times the concrete plant or asphalt plant is in operation to receive complaints by neighbors about truck drivers violating the established truck routes, or other traffic complaints;
- (b) BARM will assure that the voicemail automatically records the date and time of a call and allows the caller sufficient time to explain the nature of the complaint;
- (c) The City will send a letter drafted by ONA and approved by the City to residents of Cedar Street and Virginia Street between 2<sup>nd</sup> Street and 6<sup>th</sup> Street, residents of Fifth Street and Sixth Street between University Avenue and Gilman Street, and to all ONA members informing them of the procedures for making a complaint about truck traffic, a copy of which is attached hereto as Exhibit D;
- (d) All complaints received by a BAC or BRM employee or on the Pacific Bell voicemail system regarding trucks shall be recorded on the Complaint Log, a copy of which is attached hereto as Exhibit E;



- (e) A BAC or BRM employee shall respond by phone and/or in writing to the complainant by the end of the next business day after the complaint is received;
- (f) The BAC or BRM employee shall investigate each complaint and shall complete a Complaint Report Form, which is attached hereto as Exhibit F, summarizing the complaint and follow-up taken;
- (g) BARM shall send to the City's Zoning Compliance Officer, on a monthly basis, copies of the Complaint Log and Report Forms from the previous month.

7. Air Quality: Dust. BARM shall use its best efforts to minimize the amount of dust generated at the facilities from entering residential streets.

8. Each day that the BAC facility is operating, it shall use the vacuum sweeper to sweep the asphalt plant (dry area) from fenceline to fenceline between 2<sup>nd</sup> and 3<sup>rd</sup> Streets as needed, but at least once a day.

9. Each day that the BAC or BRM facilities are operating, BARM shall use the vacuum sweeper to sweep the roads outside of its facility, specifically Virginia and Cedar Streets between 2<sup>nd</sup> and 3<sup>rd</sup> Streets, as needed, but at least once a day.

10. Each day that BRM is operating, the tires of concrete trucks shall be washed before the trucks leave the plant.

11. BARM will upgrade the vacuum sweeper to one that is a larger size, with an improved filtration system, to prevent both large and finer particles of dust from re-releasing into the sweepers' air output.

12. If and when BRM has concrete customers, it will require that they use trucks that are loaded according to State Statutory requirements, and will encourage the truck drivers of its customers' trucks to wash the tires of their trucks before leaving the plant.

13. BRM will ensure that its suppliers conform to applicable California Statutes (including a 6" clearance of materials from top of trucks and wetting materials) regarding transportation of materials to and from the facility.

14. BAC shall encourage its asphalt customers to place tarps on their trucks before leaving the plant.

15. BARM shall regularly, but not less than annually, instruct its staff about their responsibilities for the housekeeping and maintenance measures agreed upon in this Settlement Agreement.

16. BARM shall develop a Procedural Handbook which details the procedures that must be taken and the rationale for diligently performing the housekeeping and maintenance measures agreed upon in this Settlement Agreement. This Procedural Handbook shall be distributed to each employee at the training(s) and shall be made available for reference at a central location at each facility.

17. BARM shall perform the activities listed on the Housekeeping and Maintenance Checklist, a copy of which is attached hereto as Exhibit G. The Housekeeping and Maintenance Checklist contains tasks agreed upon by the parties in this Agreement in addition to activities identified to be necessary to accomplish the agreed upon tasks. The BARM manager should review and complete the checklist to ensure that the activities listed therein are completed as required. This review shall include an inspection of each of the logs referred to in the Housekeeping and Maintenance Checklist.

18. Noise. BARM shall implement the following measures to reduce noise from its facilities:

- (a) A sound barrier at the eastern side of the asphalt plant burner, dryer and exhaust fan shall be installed. The barrier shall be located adjacent to the burner and dryer along the foundation, will follow the foundation around the bag house and fan, and turn the corner and extend westward along the south

side of the exhaust fan foundation for approximately 8 feet. The northern end of the barrier shall extend about 20 feet north of the burner inlet. The height of the barrier shall be about 20 feet as measured from the ground. The barrier shall have sufficient sound transmission loss to control sound transmitted through the barrier and shall include absorption treatment on the surface facing the asphalt plant. Design and specification of barrier materials will be forwarded to Wilson, Ihrig & Associates, Inc. for review prior to purchase and construction of the barrier. In the event the experts disagree about the design and specification of barrier materials, the City's Noise Control Officer determination will determine the design and specification of the barrier materials;

- (b) Sound absorbing barriers shall be provided around the bucket elevator head and its motor. The barriers shall have sufficient sound transmission loss to control sound transmitted through the barrier and shall include sound absorption treatment on the surface facing the equipment to control reflections between the barrier and surfaces of the plant equipment. Design and specifications of barrier materials and locations shall be forwarded to Wilson, Ihrig & Associates, Inc. for review prior to purchase and construction of the barriers. In the event the experts disagree about the design and specification of barrier materials, the City's noise expert's determination will determine the design and specification of the barrier materials;
- (c) As the pneumatic vibrators expire, they will be replaced with electric vibrators or with equally quiet equipment;
- (d) Exhaust from electric air valves will be muffled.

19. Experts representing CBE, ONA, and BARM conducted an on-site noise audit of the BARM facilities on June 17, 1999. The parties agree that a second visit will take place after

equipment for the asphalt plant, back ordered and expected to be delivered in July 1999, is installed and in operation. BARM agrees to pay \$200 toward the cost of CBE's and ONA's noise expert. In addition to the measures set forth in paragraphs 18, 20, and 21 herein, BARM will implement any mitigation measures to reduce noise identified and agreed upon by the experts as a result of the second noise audit visit.

20. BARM shall perform the maintenance activities listed on the Noise Checklist, a copy of which is attached here to as Exhibit H. The Noise Checklist contains tasks agreed upon by the parties as measures necessary to reduce the impact of noise from BARM on the neighborhood. In addition, the Noise Checklist includes activities identified to be necessary to accomplish the agreed upon tasks. The BARM manager should review and complete the checklist daily to ensure that the activities listed therein are completed as required. This review shall include an inspection of each of the logs referred to in the Noise Checklist.

21. BARM shall implement a complaint and response mechanism for noise as follows:

- (a) BARM will have either an employee or have a Pacific Bell voicemail answer its regularly listed telephone number, (510) 526-1611, at all times the concrete plant or asphalt plant is in operation to receive complaints by neighbors about noise;
- (b) BARM will assure that the voicemail automatically records the date and time of a call and allows the caller sufficient time to explain the nature of the complaint;
- (c) All complaints received by a BAC or BRM employee or on the Pacific Bell voicemail system regarding noise shall be recorded on the Complaint Log, a copy of which is attached hereto as Exhibit E;

- (d) A BAC or BRM employee shall respond by phone and/or in writing to the complainant by the end of the next business day after the complaint is received;
- (e) The BAC or BRM employee shall investigate each complaint and shall complete a Complaint Report Form, which is attached hereto as Exhibit F, summarizing the complaint and follow-up taken; and
- (f) BARM shall send to the City's Zoning Compliance Officer, on a monthly basis, copies of the Complaint Log and Report Forms from the previous month.

22. The City shall implement the Noise Complaint Response Protocol attached hereto as Exhibit I.

23. Wherever a noise measurement is taken in response to a noise complaint, the following methodology shall be used: Noise measurements shall be taken using a sound level meter that meets ANSI specifications for Type II Precision at a sample of residential properties, including the property of the complainant, along 5<sup>th</sup> Street in sight of the asphalt plant burner and along 4<sup>th</sup> Street in sight of the asphalt plant. If any violations are noted, the noise measurements shall include identification, to the extent possible, of sources of aurally identifiable sounds such as impacts, impulse noise, pure tones, and rattling, etc., operating conditions, and wind and temperature conditions.

24. The parties agree that it may be useful to revise and/or update the Berkeley Community Noise Ordinance. The parties also agree that it may be useful to revisit the manner in which the Ordinance is implemented and enforced. Therefore, by authorizing execution of this Agreement, the Berkeley City Council directs staff to provide, within 12 months of the execution of this Agreement, recommendations for (a) how to revise and update the language of the Berkeley Community Noise Ordinance; and (b) how to improve implementation and

enforcement of the Ordinance. The City Council shall also direct staff to provide the City Council with an estimate of resources necessary to carry out the recommended improvements.

25. Odors. BAC shall implement the following measures to reduce odors from its facilities:

- (a) BAC shall enclose the asphalt product truck loading operations;
- (b) BAC shall vent vapors from the truck loading operations to the baghouse;
- (c) BAC shall hire an inspector acceptable to all parties to conduct a one time odor audit of the asphalt silo storage truck loading operation when it is fully operating to determine if this loading operation versus the background odors of the general plant is a source of odor problems at the BAC facility's property line, and if so, BAC shall implement measures to mitigate the odor problem. BAC shall pay no more than \$200 for the cost of the odor inspector;
- (d) BAC shall close up vent openings and other fugitive leaks in the conveyor system leading to the asphalt cement storage silos;
- (e) BAC shall add condensers to the two storage tanks now without such equipment;
- (f) BAC shall follow good engineering practice for minimizing emissions for all fugitive sources, such as pumps, hatches, valves, flanges, and other pipe connections. Such practices include, among other things, ensuring that: all hatches are closed during operation, pumps are outfitted with appropriate seals, the pug mill is kept under sufficient negative pressure, the vent line from the pug mill to baghouse is inspected at least daily to ensure that it is not plugged, the baghouse magnehelic measurement is inspected for pressure drop (such as zero pressure drop indicating broken bags and high pressure indicating plugged bags should be shaken down more often), and the truck loading doors are kept in good repair; and

(g) BAC shall keep in a clearly marked and readily accessible binder the manufacturers' specifications for all air pollution control and manufacturing equipment. All equipment will be operated according to manufacturers' specifications, and logs will be developed and maintained to record on a daily basis recording actions taken to keep operation within specified parameters. These logs shall be available for inspection.

26. BAC shall perform the activities listed on the Odor Checklist attached hereto as Exhibit J. The Odor Checklist contains tasks agreed upon by the parties as measures necessary to reducing the impact of odor from BARM on the neighborhood. In addition, the Odor Checklist includes activities identified to be necessary to accomplish the agreed upon tasks. The BARM manager should review and complete the checklist daily to ensure that the activities listed therein are completed as required. This review shall include an inspection of each of the logs referred to in the Odor Checklist.

27. Post-Settlement Monitoring by the City. For a period of 3 years following the execution of this Agreement, the City shall conduct a semiannual audit of all logs associated with the Traffic Compliance Checklist, the Housekeeping and Maintenance Checklist, the Noise Checklist, and the Odor Checklist.

28. Post-Settlement Inspection for Dust by the City. For a period of 3 years following the execution of this Agreement, the City shall conduct semiannual on-site inspections of the BARM facilities to ensure compliance with the terms of this Agreement. The semiannual audit and on-site inspection of the BARM facilities shall be unannounced. The inspections shall include, but are not limited to, the following elements:

- (a) Assess whether there is substantial visible dust present on the general grounds that is likely to be tracked or blown off site;
- (b) Assess whether there is substantial visible dust present on the driveways exiting the facility that is likely to be tracked or blown off site;

- (c) Assess whether there is substantial visible dust present on tires of trucks leaving the property;
- (d) Assess whether the facilities are clear of significant dust build-up;
- (e) Assess whether there is substantial visible dust present on Cedar and Virginia between 2<sup>nd</sup> and 3<sup>rd</sup> Streets near the facility; and
- (f) Assess whether it appears that the Berkeley Asphalt and Ready Mix Company site is the likely source of substantial visible dust on roadways and properties surrounding the facility.

29. Post-Settlement Monitoring for Noise by the City. The City shall conduct a noise assessment of the BARM facilities on a quarterly basis, as required by Condition #14 of the Notice of Decision Modifying Use Permit #3033. Noise measurements shall be taken using a sound level meter that meets ANSI specifications for Type II Precision at a sample of properties along 5<sup>th</sup> Street in sight of the asphalt plant burner and along 4<sup>th</sup> Street in sight of the asphalt plant. If any violations are noted, the noise measurements shall include identification, to the extent possible, of sources of aurally identifiable sounds such as impacts, impulse noise, pure tones and rattling, etc., operating conditions, and wind and temperature conditions. Such quarterly monitoring shall cease after three years or after two consecutive noise assessments show an absence of violations of applicable laws and ordinances, whichever is later.

30. Post-Settlement Monitoring for Odors. For a period of 3 years following the execution of this Agreement, an inspector acceptable to all parties shall conduct a semiannual odor inspection of the BAC facility when the asphalt plant is in full operation. At least one such inspection annually will take place at night. The inspection should include an assessment of odors on-site at the facility and offsite at impacted residential areas. The cost of such inspections will be shared equally by BARM and CBE; neither BARM nor CBE shall be required to pay more than \$400 annually for inspections pursuant to this paragraph. The City shall have no liability for the cost of inspections under this paragraph.



31. Post-Settlement Monitoring by Experts Representing CBE, ONA and BARM. After BARM has installed and implemented the mitigation measures identified herein, it shall allow experts representing CBE, ONA, and BARM to conduct a one time on-site visit to assess the adequacy of the mitigation measures implemented pursuant to this Agreement. BARM will pay up to \$400 toward the cost of CBE's and ONA's noise expert.

32. Semi-Annual Review Meeting. For a period of three years following the execution of this Agreement, BARM agrees to host a meeting semi-annually with CBE, ONA and the City to discuss compliance with this Agreement, problems that have arisen and problems that may arise in fulfilling the terms of this Agreement.

33. Payment of Attorney Fees and Costs to CBE. Within 60 days of the entry of judgment, BARM shall pay to CBE the sum of \$47,500 as full payment of CBE's cost of litigation (including expert costs and attorneys' fees) and as full and final satisfaction of any claims for costs or fees by any party to this Agreement except those costs set forth in paragraphs 19, 25, 30 for inspections, the action *Communities for a Better Environment v. City of Berkeley*, Case No. 807882-5.

34. By executing this Settlement Agreement, ONA withdraws its public nuisance complaint now pending before the Berkeley City Council. The Zoning Adjustments Board ("ZAB") decision of October 22, 1998 shall have no effect on any future proceedings relating to the BARM facilities; however, the parties are free to use the legal arguments raised at the October 22, 1998 ZAB hearing in any nuisance action brought to address facts occurring after the date of this Agreement.

#### GENERAL PROVISIONS

35. Applicable Law. The parties intend and agree that this Agreement shall be subject to, governed by, and enforced and construed pursuant to the laws of the State of California.

36. Representation by Counsel. Each of the parties represents and warrants that, in connection with the negotiation and execution of this Agreement, it has been represented by counsel of its own choosing, has executed this Agreement after receiving the advice of counsel, and its representatives have read and understand the provisions and terms of this Agreement and have had an adequate opportunity to conduct an independent investigation of all facts and circumstances with respect to all matters that are subject to this Agreement.

37. Successors. This Agreement is binding upon and shall inure to the benefit of the parties and their respective successors, assigns, trustees, and personal representatives.

38. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed one and the same instrument.

39. Joint Drafting of Agreement. The parties have jointly drafted this Agreement, and the Agreement shall not be interpreted against or in favor of any of the parties that participated in the drafting of the Agreement.

40. Authorization to Execute Agreement. Each of the parties represents and warrants that the person executing this Agreement on its behalf is a representative duly authorized to bind it and empowered to enter into this Agreement on its behalf.

41. Notices. Whenever this Settlement Agreement requires notice or submission of information, other than the regular reports sent to the City, this material shall be mailed (postage prepaid) to:

(a) For CBE:

Anne Simon, Acting Legal Director  
COMMUNITIES FOR A BETTER ENVIRONMENT  
500 Howard Street, Suite 506  
San Francisco, California 94105

(b) For the City:

Zach Cowan  
OFFICE OF THE CITY ATTORNEY  
1947 Center Street, First Floor  
Berkeley, CA 94704

(c) For ONA:

Nora Chorover  
515 Jackson Street  
Albany, CA 94706

(d) For BARM, BAC or BRM:

Rena Rickles  
Attorney at Law  
1970 Broadway, Suite 1200  
Oakland, CA 94612

42. Modifications. The terms of this Settlement Agreement shall not be changed, revised or modified except by a written instrument signed by the parties to this Settlement Agreement.

43. Entire Agreement. This Settlement Agreement sets forth the entire agreement between the parties. All agreements or representations, express or implied, of the parties with regard to this subject matter are contained in this Settlement Agreement.

44. Enforcement. Before any party may seek judicial enforcement of this Settlement Agreement or the Judgment entered pursuant to it, it shall give the party against whom it intends to enforce the Settlement Agreement or Judgment no less than thirty (30) days written notice of the alleged violation. If the party alleged to be in violation begins in good faith to cure the violation, no judicial enforcement shall be available as long as good faith efforts to cure the alleged violation continue.

45. Reservation of Police Power. Notwithstanding anything to the contrary herein, the parties acknowledge that the City has the continuing power to amend the entitlements that it has issued that control the development and use of BARM's property at 699 Virginia Street, or to grant additional such entitlements, consistent with applicable laws or ordinances. This power extends to amendment of Use Permit #3033, which is the subject of both the pending litigation between CBE and the City and the administrative public nuisance complaint filed by ONA, and Use Permit #3681, which is the subject of the administrative nuisance complaint by ONA.

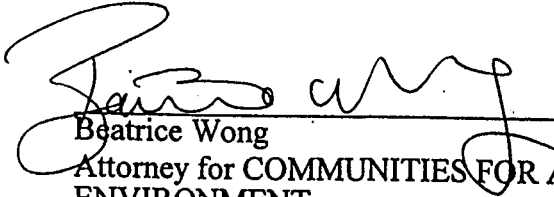
46. Except as provided in paragraph 44, *infra*, nothing in this Agreement shall affect the right of any organization, entity, or individual with respect to complaints that it may file with any appropriate administrative, governmental, or judicial forum alleging violations by BARM for problems that relate to operations at the BARM facilities which continue or occur after the signing of this Agreement.

47. Nothing in this Agreement shall affect the right of any individual to bring an action against BARM for personal injury or property damage related to operations at the BARM facilities. In accordance with Evidence Code § 1151, in any subsequent action for property damage or personal injury by a group or an individual, remedial or precautionary measures taken pursuant to this Agreement shall be deemed inadmissible to prove negligence or culpable conduct.


48. The parties agree that this Settlement Agreement shall be attached as an exhibit to the Stipulated Judgement in the action captioned *Communities for a Better Environment v. City of Berkeley*, Case No. 807882-5. Further, the City shall prepare a Writ of Mandate for the action captioned *Communities for a Better Environment v. City of Berkeley*, Case No. 807882-5, subject to approval as to form by the parties, that includes the provisions of this Settlement Agreement which the City must undertake, except for the actions set forth in paragraph 24. The Writ of Mandate shall also require the City to include in Use Permit #3033 the provisions of this Settlement Agreement which pertain to the operation of the BARM facilities.

APPROVED AS TO FORM:

Dated: Aug 4, 1999

  
Beatrice Wong  
Attorney for COMMUNITIES FOR A BETTER ENVIRONMENT

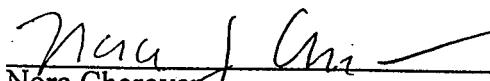
Dated: Aug 26, 1999

  
Zach Cowan  
Attorney for CITY OF BERKELEY

Dated: Aug 20, 1999

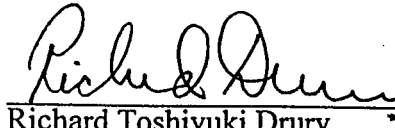
  
Rena Rickles  
Attorney for BERKELEY ASPHALT COMPANY and BERKELEY READY MIX COMPANY

Dated: Aug 5, 1999

  
Nora Chorover  
Attorney for OCEANVIEW NEIGHBORHOOD ASSOCIATION

APPROVED AS TO SUBSTANCE:


Dated: Aug 4, 1999

  
Richard Toshuyuki Drury  
Acting Executive Director  
COMMUNITIES FOR A BETTER ENVIRONMENT

Dated: Aug 20, 1999

  
Zach Cowan  
CITY OF BERKELEY

Dated: Aug 20, 1999

  
William Howard  
Vice President, General Manager  
BERKELEY ASPHALT COMPANY  
BERKELEY READY MIX COMPANY

Dated: Aug 14, 1999

  
Terry Terteling  
President  
OCEANVIEW NEIGHBORHOOD ASSOCIATION

SETTLEMENT AGREEMENT

Communities for a Better Environment, City of Berkeley, Berkeley Asphalt Company, Berkeley Ready Mix Company and the Ocean View Neighborhood Association

July 19, 1999

TO: ALL BERKELEY ASPHALT AND READY MIX  
CUSTOMERS AND SUPPLIERS

FROM: BERKELEY ASPHALT AND READY MIX

SUBJECT; TRUCK ROUTES

Recently our company has entered into an agreement with our neighbors and the City of Berkeley, and we need your help in making it a success. Effective immediately the following truck routes are in force. Frontage Road from the University off ramp to Cedar Street or Virginia Street for trucks entering the plant. Frontage Rd. to Gilman interchange for trucks leaving the plant. Trucks bound for Berkeley jobs are permitted on Cedar Street to 6<sup>th</sup> Street, but not east of 6<sup>th</sup> on Cedar. Additionally until the Gilman interchange is improved, trucks may use Cedar to 6<sup>th</sup> at peak hours (Monday-Friday, 4:00pm-6:00pm)

These truck routes will be communicated as follows;

1. Written customer and supplier notification of truck routes (this document)
2. Notification on customer truck delivery tags
3. Truck route flyers given to drivers at the scale
4. Lighted sign at Virginia Street gate advising drivers of truck routes

And enforced as follows:

1. Verbal warning at first offence
2. Written warning at second offence
3. Suspension from job on third offence
4. Subsequent violations will result in the driver being permanently banned from plant site

If there are any questions please call our Berkeley office, (510) 526-1611

# NOTICE

## BE ADVISED:

YOU ARE TO FOLLOW THE ATTACHED HAUL ROUTES AS SPECIFIED.

VARYING FROM THOSE SPECIFIED ROUTES WILL RESULT IN  
REMOVAL FROM THE JOB.

# NOTICIA

## SE AVISA:

TU TIENES QUE SEGUIR LAS RUTAS QUE SE AN ESPECIFICADO.

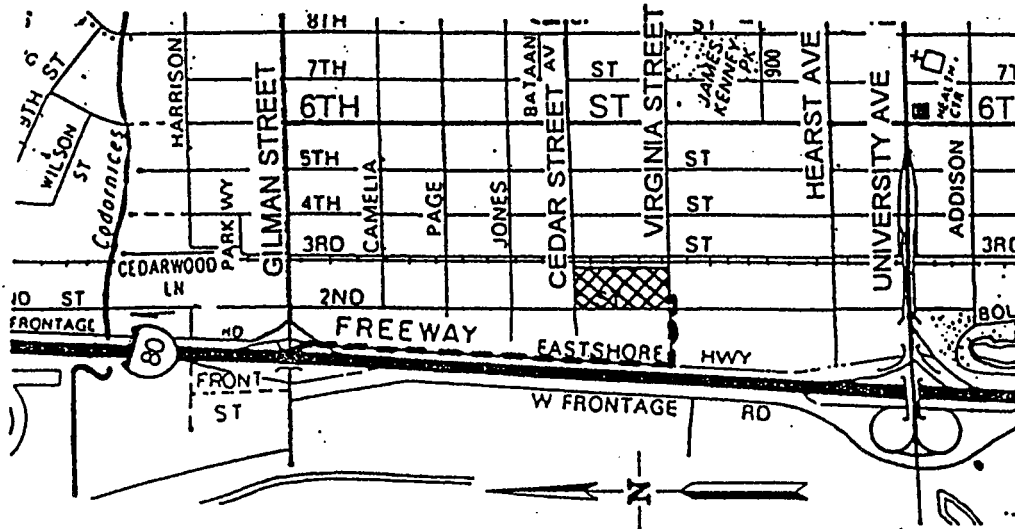
VARIANDO DE ESAS RUTAS ESPECIFICADAS PUES ESTAS SERAN EL  
RESULTADO EN EL REMODELADO DEL TRABAJO.

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# HAUL ROUTES

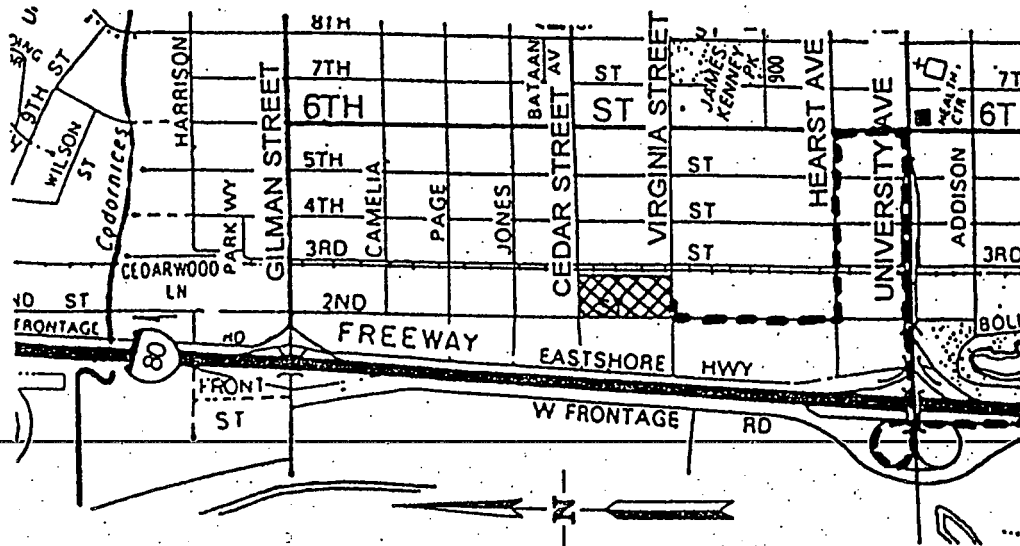
## TO INTERSTATE 80 BOUND HAULERS:

Turn West (Right) on Virginia Street  
Turn North (Right) on Frontage Road  
Enter Hwy. 80 at Gilman Street



## TO INTERSTATE 580 BOUND HAULERS:

Turn West (Right) on Virginia Street  
Turn South (Left) on 2nd Street  
Turn East (Left) on Hearst Avenue  
Turn South (Right) on 6th Street  
Turn West (Right) on University Avenue  
Enter Hwy. 80 South at University Avenue





July 19, 1999

TO: ALL BERKELEY ASPHALT AND READY MIX  
CUSTOMERS AND SUPPLIERS

FROM: BERKELEY ASPHALT AND READY MIX

SUBJECT; TRUCK ROUTES

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2. Written warning at second offence
3. Suspension from job on third offence
4. Subsequent violations will result in the driver being permanently banned from plant site

If there are any questions please call our Berkeley office, (510) 526-1611

TRAFFIC COMPLIANCE CHECKLIST

**Settlement Task #1: BARM will provide regular notice to its customers, suppliers and employees of the truck routes that must be taken.**

- BARM will preprint every ticket, which is issued to customers before they leave the facilities, with the established truck routes.
- All contracts will contain a notice of the agreed upon truck routes.
- Fax map of established route to people contracted to do work for BARM before the start of jobs.

**Settlement Task #2: Berkeley Asphalt and Ready Mix Company will post a clearly visible, lighted sign at the exit gate with the established truck routes.**

- Sign with established truck routes is posted at the exit gate.
- Sign is clean and clearly displays truck routes.
  - Sign is cleaned as needed, but at a minimum of one time per week.
  - Light that illuminates the sign is operational.
  - An employee checks to make sure the light is working properly each time the sign is cleaned.
    - The light is replaced as soon as an employee becomes aware that it is out.
    - Replacement light bulbs for the sign are stocked and available in the plant's supply storage area.
- Employee(s) responsible for cleaning the sign has signed and dated the log verifying that the task was completed. *See attached Truck Route Sign Maintenance Log.*

\_\_\_ Employee(s) responsible for checking the log has signed and dated the log verifying that the task was completed. *See attached Truck Route Sign Maintenance Log.*

**Settlement Task #3: Berkeley Asphalt and Ready Mix Company will inform customers that there will be sanctions for violations of the established truck routes.**

\_\_\_ Notice and warning of sanctions for non-complying trucks will be inserted in the invoices to customers.

\_\_\_ Owner or contractor of non-complying truck will be contacted within 3 days after a complaint is received from a neighbor.

**Settlement Task #4: BARM will have either an employee or a Pacific Bell Voicemail system answer its main business number during all hours to receive complaints regarding violations of established truck routes.**

\_\_\_ Either a BAC employee or a Pacific Bell Voicemail system will answer BARM's normal business line during operating hours to receive complaints about odors.

\_\_\_ The Pacific Bell Voicemail System shall automatically record the time and date of every incoming call or complaint.

\_\_\_ A BAC or BRM employee will enter the date, time and nature of the complaint on the Complaint Log. *See Settlement Agreement, Exhibit E.*

\_\_\_ Employee who responds to complaint shall investigate the complaint and complete a Complaint Report Form summarizing the nature of the complaint and the follow-up response and action. *See Settlement Agreement, Exhibit F.*

\_\_\_\_\_ A Berkeley Asphalt or Berkeley Ready Mix employee will respond to complainant by the end of the next business day by telephone or in writing.

\_\_\_\_\_ The Complaint Logs and Complaint Report Forms are sent to the City's Zoning Compliance Officer on a monthly basis.



Dear West Berkeley Resident:

As part of an agreement with the City of Berkeley and community environmental groups, Berkeley Asphalt and Ready mix ("BARM") will limit the number of trucks using residential streets during nighttime (6:00 p.m. to 6:00 a.m.) and non-peak daytime hours (6 a.m. to 4 p.m.) ("Restricted Hours"). During Restricted Hours, trucks entering and exiting BARM's facilities will use the Frontage Road to access I-80 and I-580 eastbound and westbound. The only trucks that may use residential streets during Restricted Hours will be coming from or heading towards locations in Berkeley.

If you are concerned that trucks entering and exiting the BARM facilities during Restricted Hours are not complying with the required truck routes, or if you have other complaints regarding truck traffic related to the BARM facilities, please call 526-1611 at BARM at any time. A BARM employee or a voice mail system will answer your call.

To facilitate appropriate follow-up of your complaint, please include the following information:

- (1) the time of the complained of event
- (2) the location of the event
- (3) the number of the truck involved (an identification number is located on the side of the truck on the door and back)
- (4) any other descriptive information.

Please remember that the person answering the complaint line may not be personally responsible for the problem. The person may, however, be in a position to help prevent problems from arising in the future.

Your complaint will be responded to by the end of the business day after the complaint is received by phone and/or in writing. The circumstances of the complaint will be described in a Complaint Report Form and the complaint will be recorded in BARM's Complaint Log. BARM will send, on a monthly basis, a copy of the Complaint Log and Complaint Report Forms to the Berkeley Zoning Compliance Officer. The Complaint Log and Complaint Report Forms on file with the Zoning Compliance Officer will be available for your inspection upon request.



COMPLAINT REPORT

TODAY'S DATE: \_\_\_\_\_

PREPARED BY: \_\_\_\_\_

DATE COMPLAINT RECEIVED: \_\_\_\_\_

TYPE OF COMPLAINT:  TRUCKS  NOISE  ODOR

DESCRIBE THE NATURE OF COMPLAINT:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DESCRIBE INVESTIGATION PERFORMED AND ITS FINDINGS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RESPONSE TO COMPLAINANT:

Telephone Call on \_\_\_\_\_ at \_\_\_\_\_ a.m./p.m.

By Mail (attach a copy of the letter sent)

ACTION TAKEN AGAINST VIOLATOR OF TRUCK ROUTE:

Written Notification of Violation and Warning of Sactions  Notice of Termination

ACTION TAKEN TO REMEDY NOISE OR ODOR PROBLEM:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



HOUSEKEEPING AND MAINTENANCE CHECKLIST

**Settlement Task #1: Berkeley Asphalt and Ready Mix Company ("BARM") will instruct operators and maintenance staff on their responsibilities to perform the housekeeping and maintenance measures agreed upon in the Settlement Agreement, which are intended to mitigate the amount of dust that leaves the BAC and BRM facilities.**

\_\_\_ Within 30 days of Court entry of the Stipulated Judgment including the Settlement Agreement, BARM will draft and distribute a memorandum informing operators and maintenance staff of their responsibilities for performing the measures agreed upon in this action.

\_\_\_ Within 10 days of distributing the memo regarding housekeeping and maintenance measures, BARM will conduct a training to operators and maintenance staff about these agreed upon measures.

\_\_\_ Within 30 working days of Court approval of a settlement agreement, BARM will develop a manual of procedures related to implementation of the Settlement Agreement, which will be distributed to each employee.

\_\_\_ Trainings on the housekeeping and maintenance measures set out in the Settlement Agreement will be conducted annually either in conjunction with the required OSHA training or as a separate training.

\_\_\_ Upon completion of the training on the housekeeping and maintenance measures, each employee who received the training shall sign and date a log verifying his or her attendance at the training. *See attached Attendance Log.*

\_\_\_ If a representative from the City elects to attend the training sessions, that representative will also sign the log.

**Settlement Task #2. BARM shall conduct a visual inspection, assess the overall cleanliness and level of dust onsite and off-site in the plants' vicinity and take steps to fix any dust problems at least once a day when either BAC or BRM is operating.**

\_\_\_ Assess whether there is substantial visible dust present on the general grounds that is likely to be tracked or blown off site

\_\_\_ Assess whether there is substantial visible dust present on the driveways exiting the facility that is likely to be tracked or blown off site

\_\_\_ Assess whether there is substantial visible dust present on tires of trucks on the property

\_\_\_ Assess whether there is substantial visible dust present on tires of trucks leaving the property

\_\_\_ Assess whether the facilities seem to be clear of significant dust build-up

\_\_\_ Assess whether there is substantial visible dust present on the Cedar and Virginia between 2<sup>nd</sup> and 3<sup>rd</sup> Streets near the facility

\_\_\_ Assess whether it appears that the Berkeley Asphalt and Ready Mix Company site is the likely source of substantial visible dust on roadways and properties surrounding the facility

\_\_\_ Assess whether there is equipment not listed on this checklist which appears to be generating significant dust into the air and onto the BARM property? (Specify)

\_\_\_ If the answer to any of the previous questions is yes, identify the source of the dust; determine whether the problem is mechanical or operational; if it is an operational problem, take appropriate action (such as discipline or additional training); if it is mechanical, repair or determine if equipment needs to be re-engineered.

**Settlement Task #3:** Each day the asphalt plant is operating, BAC will use the vacuum sweeper to sweep the asphalt plant (dry area) from fenceline to fenceline as needed to eliminate visible dust, but at least once a day.

- \_\_\_ Sweeping accomplished every day plant is in operation.
- \_\_\_ The employee who sweeps the plant from fenceline to fenceline should complete a log, which includes time, date and signature, indicating when the task was completed. *See attached Vacuum Sweeper Log.*
- \_\_\_ Vacuum Sweeper properly maintained.
  - \_\_\_ Maintenance of the sweeper is up to date per manufacturer's recommendation or per a stricter BARM policy.
  - \_\_\_ Vacuum filter checked weekly.
  - \_\_\_ Vacuum filter changed as needed, but at least in accordance with manufacturer's recommended maintenance schedule.
  - \_\_\_ Employee who is responsible for each vacuum sweeper upkeep activity will sign and complete a log indicating the task performed and the date it was performed. *See attached Vacuum Sweeper Maintenance Log.*
- \_\_\_ Vacuum Sweeper will be replaced when it does not adequately function to accomplish clean sweep-up of dust or when it cannot be repaired.

**Settlement Task #4:** Each day the asphalt plant is operating, BAC will use the vacuum sweeper to sweep the road outside of its the facility, specifically Virginia and Cedar Streets between 2<sup>nd</sup> and 3<sup>rd</sup> Streets, as needed, but not less than once a day.

- \_\_\_ Sweeping is accomplished every day plant is in operation.

\_\_\_ So that sweeping will not disturb sleeping residential neighbors, sweeping will be conducted during daylight hours only.

\_\_\_ The employee who sweeps the outside of the plant will complete a log, which includes time, date and signature, indicating when the task was completed.

\_\_\_ Vacuum Sweeper properly maintained (see Task #3 above)

**Settlement Task #5: Each day the ready mix cement plant is operating, the tires of the concrete trucks, all of which are owned or operated by BRM, will be washed before leaving the plant.**

\_\_\_ BRM will provide a designated area near the plant's exit for the tire wash.

\_\_\_ Each BRM truck driver will be assigned to wash his or her truck tires before leaving the facility.

\_\_\_ The tire washing area will include a drainage system to capture and dispose of the wash water in accordance with any regulatory requirements.

\_\_\_ A clear and visible sign instructing trucks to wash all debris from tires will be posted at the wash area.

\_\_\_ The drainage system will be checked daily to ensure that it is not clogged.

**Settlement Task #6: If and when BRM has concrete customers, it will require that they use trucks that are loaded according to State Statutory requirements, and will encourage the truck drivers of its customers' trucks to wash the tires of their trucks before leaving the plant.**

**Settlement Task #7: Berkeley Asphalt Company will tarp all trucks that it owns or operates.**

\_\_\_\_\_ Berkeley Asphalt Company will purchase and provide each of the trucks it owns with a tarp to cover the truck.

\_\_\_\_\_ Trucks are to be tarped whenever they are loaded with materials.

\_\_\_\_\_ Berkeley Ready Mix Company will ensure that its suppliers conform with applicable California Statutes (including a 6" clearance of materials from top of trucks and wetting materials) regarding transportation of materials to and from the facility.

**Settlement Task #8: Berkeley Asphalt Company will encourage its customers to tarp their trucks before leaving the plant.**

\_\_\_\_\_ A Berkeley Asphalt Company employee will provide a tag to each customer requesting that they tarp their loads.

**Settlement Task #9: Berkeley Asphalt and Ready Mix Company shall conduct all maintenance procedures on their equipment e.g. baghouse, exhaust fan, rotary mixer, pug mill, asphalt scale and trucks in accordance with manufacturer's recommendations or as required to eliminate problems identified by neighbors and their consultants or as required to eliminate maintenance problems.**





## NOISE CHECKLIST

**Settlement Task #1.** BARM shall maintain all plant equipment in good working order.

- \_\_\_ Employee(s) will check, on weekly basis, all bolts, panels, drive systems, and bearings to ensure that they are properly tightened, maintained and repaired.
- \_\_\_ Employee who completes the maintenance check shall complete a log, which includes the date and a signature, indicating what task, if any, was performed (eg. checked and tightened bolt).

**Settlement Task #2.** BARM shall mark major noise mitigation measures (such as the sound barriers) with permanent sign indicating that the item is to remain in place at all times for the purpose of noise control.

- \_\_\_ Signs are clear and visible.
- \_\_\_ Signs kept clean.
- \_\_\_ Employee who completes the maintenance check on the signs shall complete a log, which includes the date and a signature, indicating that the task was performed.

**Settlement Task #3.** BARM shall properly maintain all noise control measures.

- \_\_\_ Noise mitigation measures will be maintained in accordance with manufacturers' specifications.
- \_\_\_ Concurrent with the installation of all noise control measures, BARM will develop a manual of procedures which shall include instructions on the maintenance of the noise control measures and the necessity of maintaining noise control provisions.
- \_\_\_ Trainings on the proper maintenance of noise control measures shall be conducted annually either in conjunction with the required OSHA training or as a separate training.

**Settlement Task #4.** Noise mitigation measures that are removed during the maintenance of equipment shall be replaced as soon as possible.





**CITY OF BERKELEY NOISE COMPLAINT RESPONSE PROTOCOL****I. Complaint Routing And Intake Procedures.**

- A. Noise related citizen complaints will be taken and processed by a designated Noise Control Officer (or suitably trained authorized agent of the NCO) who, upon receiving a complaint, shall:
1. interview the complaining person(s) to determine the nature of the complaint; and
  2. fill out Part 1 of the Noise Investigation Report, a sample of which is attached.
- B. Based upon the information provided the NCO will determine whether an on-site investigation will be conducted.
- C. If the NCO determines that an on-site investigation is not warranted, the NCO will so note on the Investigation Form and inform the complainant(s) of that determination and the reasons(s) for such decision.

**II. Preparation For Onsite Investigation. In cases where on-site investigation is required, the NCO may do the following:**

- A. Determine whether measurements of acoustic data may be required. Generally, the need to conduct acoustic measurements shall be presumed, except where the objectionable noise is identified as the result of a Prohibited Act, and the NCO has reason to believe that investigation and intervention without benefit of measured acoustic data will lead to successful resolution of the complaint.
- B. Dispatch or schedule appropriate personnel and equipment to conduct the on-site investigation of the objectionable noise, if possible, while said noise is occurring.

**III. On-Site Complaint Investigation Procedures. The NCO or designated agent shall, upon arriving at the location of a noise-related complaint, do the following:**

- A. Based upon information in the Noise Inspection Report, attempt to independently verify the presence of the objectionable noise described.
- B. If the described noise is not apparent, the NCO or agent will contact the complainant(s) to obtain any additional information which might be useful in determining when the noise will reoccur.
- C. If the described noise is apparent, the NCO or agent shall survey the area to determine additional information relating to the source of the noise and impact(s)

on the surrounding community. The NCO may also determine if the objectionable noise is the result of a Prohibited Act under the BCNO.

- D. Upon making the determination that the noise results from a Prohibited Act, the NCO may take any steps reasonably necessary to abate the noise, including but not limited to remedies specified under Section 13.40.030.C of the Noise Ordinance and Sections 11.40.010 through 11.44.030 of the Berkeley Municipal Code.
- E. The NCO or agent may also make a determination as to whether the objectionable noise is a violation of the General Noise Regulations Section 113.40.30.A in that the perceived noise in his/her judgment either "disturbs the peace and quiet of any neighborhood" or "causes any discomfort or annoyance to any reasonable person of normal sensitiveness residing in the Area".
- F. If the NCO or agent determines that the offensive sound contains any of the characteristics listed in Section 13.40.050.B, this determination shall be noted and a 5dB reduction to the applicable exterior noise limit as defined in Table 13.40-1 shall be applied.
- G. If the NCO, upon arrival at the scene, determines that
  - 1. the objectionable noise, when measured, may approach (within 5dB) the noise limits specified in Sections 13.40.050 or 13.40.060 adjusted per any requirement of Section 13.40.050 for character of sound; or
  - 2. the objectionable noise, when measured, may approach (within 5dB) any other performance standards promulgated pursuant to the Zoning Ordinance applicable to the location; or
  - 3. there is evidence that the noise is considered objectionable or offensive to persons in 3 or more separate residential units and/or business establishments, whether from current complaint(s) or prior known incidents relating to a particular noise source; or
  - 4. noise measurement could facilitate resolution of the noise complaint,

then the NCO shall proceed to take sufficient acoustic measurements as to document sound levels resulting from the objectionable noise(s) as well as ambient sound levels utilizing procedures described in Section 13.40.040 and 13.40.050 of the BCNO.

**IV. Enforcement Procedures.**

- A. If, based upon the facts, data and measurements gathered in the investigation, the

NCO or agent determines that the occurrence of the objectionable noise has (1) disturbed the peace of any neighborhood; or (2) caused discomfort or annoyance to any reasonable person of normal sensitiveness; or (3) exceeded applicable noise limits, performance standards or other known standards, the NCO or agent may, take all steps necessary to abate the noise, including but not limited to remedies specified under Section 13.40.030.C of the Noise Ordinance and Sections 11.40.010 through 11.44.030 of the Berkeley Municipal Code. Within seven (7) working days of the complaint the NCO shall send the complainant a copy of the completed Noise Complaint Form showing his/her determination, the reasons therefor and any actions taken.

- B. If, based upon the facts, data and measurements gathered in the investigation, the NCO or agent determines that the objectionable noise is not a violation of the Noise Ordinance or other applicable law, he/she shall so inform the complainant(s), and provide to them within 10 working days a copy of the completed Noise Complaint Form showing his/her determination and reasons therefor.

FAUSERS\ZACI\BACNOISEPRO.rev.doc



CITY COUNCIL

INFORMATION CALENDAR

May 26, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Councilmembers Linda Maio and Lori Droste

SUBJECT: Status Report: Berkeley Asphalt; Pacific Steel Casting: Air Quality Inquiries

INTRODUCTION

On January 20, 2015, the Berkeley City Council passed the following actions:

1. Councilmembers Linda Maio and Lori Droste to work with residents, businesses, and City Staff to review complaints and make good faith efforts to mitigate impacts in the areas where the City has authority such as noise and odors and to bring their findings back to City Council.
2. Direct the City Manager to enforce the terms of the Use Permit and the 1999 Settlement Agreement with the Oceanview Neighborhood Association.
3. If the City Manager and delegated staff or department finds the West Berkeley Lehigh Asphalt Company plant is not compliant with the Use Permit or the 1999 Settlement Agreement with the Oceanview Neighborhood Association, the City and its jurisdictional bodies or the appropriate authority implements corrective action and enforces the 1999 Settlement Agreement Use Permit immediately.

CURRENT SITUATION AND ITS EFFECT

On January 20, 2015, the City Council tasked Councilmembers Maio and Droste to review complaints made regarding air quality in West Berkeley. Subsequently, Councilmembers Maio and Droste discussed concerns with residents.

The City of Berkeley's Economic Development Department aided in scheduling site visits to both businesses. During these site visits, we discussed resident concerns, the 1999 Settlement Agreement with Berkeley Asphalt, and reviewed various operational standards of both industrial companies.

FINDINGS**Neighborhood Concerns**

Councilmember Droste met with several groups of residents to review their concerns regarding industry in West Berkeley. Concerns largely fell into the following five categories:

1. Public health
2. Regulatory bodies
3. Reporting protocol
4. Business practices
5. Information access

#### *Public health*

All of the residents interviewed shared the concern of odorous and non-odorous emissions on the community at large, particularly children in nearby homes and schools. In addition to these environmental and physical health concerns, some residents expressed increased anxiety when smelling odorous emissions. Another resident also stated that she was interested in the City's disaster preparedness plan in the industrial areas where hazardous materials (i.e. liquid oxygen) are common.

#### *Regulatory bodies*

Many residents are concerned that industry in West Berkeley is violating local, state, and federal regulations, specifically the EPA Clean Air and Water Act and OSHA standards. Some residents also expressed interest in operations oversight and whether there are appropriate resources to inspect and mitigate concerns. In particular, there is a general concern over enforcement procedures and penalties if a violation occurs. The residents feel that the odors and occasional noise disturbances constitute a nuisance as defined by Code 23B.64.020. Furthermore, a few residents stated their concern over whether the Council-adopted Community Environmental Advisory Commission recommendation from March 13, 2007, was examined and acted upon.

#### *Reporting protocol*

Residents expressed displeasure over the air quality complaint process through Bay Area Air Quality Management District (BAAQMD). Complaints focused on the following issues:

- The three notices of violation in 30 days for a public nuisance declaration is too lenient.
- The five confirmed complaint threshold per day is insufficient.
- Complaint lines with investigators are not available at all hours.
- Complaint forms should be more detailed.
- Residents are limited to one complaint a day.
- Residents must be home and interact with an inspector if a complaint is logged. Often a smell has dissipated once an inspector has arrived.
- The perception that public official complaints have more weight than residential complaints.
- Individuals under 18 can't file a complaint.
- Reliance on an inspector's sense of smell is not scientific.

### *Businesses practices*

Several residents claim that some industries in West Berkeley may not be following protocols for good business. Namely, they seem to be concerned that weekend and after-hour operations disturb residents.

### *Information Access*

Residents feel that they were not notified of the impacts of existing industry when purchasing or renting their homes. Overall, these residents are unclear about what substances are contained in the emissions.

### **Site Visits and Current Practices**

#### **Pacific Steel & Casting Company, LLC (PSC)**

On March 3, 2015, Councilmembers Maio and Droste visited PSC, took a tour and met with management to discuss business practices and general resident concerns. Attached is PSC's most recent Emissions Minimization Plan (Attachment 1).

#### **Lehigh Hanson Berkeley Asphalt**

On March 27, 2015, Councilmembers Maio and Droste visited Berkeley Asphalt, took a tour and met with management, and went over the 1999 Settlement Agreement in detail. The City Manager's Office is still in the process of reviewing that agreement. The following is a summary of what was discussed:

- *How are the factories prepared to handle a hazardous explosion in the area?*  
Berkeley Asphalt trains their employees annually to handle hazardous materials onsite, which includes Hazardous Communications. As part of site specific training, they notify all persons on site of designated emergency evacuation meeting point.
- *When do the factories operate?*  
Berkeley Asphalt's permit allows them to operate 24 hours/day. The most common operating hours are 7:00AM to 3:00PM M-F. If they have production on the weekend or at night, Councilmember Maio and the Deputy City Manager are notified. These off-shift operations usually occur during the summer and fall, which is historically the busiest production period.
- *Has the asphalt company updated any technology to accommodate the warm mix?*  
See the attached information on the MAXAM AquaBlack system (Attachment 2). This technology is fully implemented.
- *How is equipment modernized or kept up to date?*  
In order to be sure equipment is operating properly, oil samples are taken monthly, and vibration testing occurs twice a year. Equipment is replaced as it wears with like-for-like replacement equipment or with improved technology.

- *Is Berkeley Asphalt compliant with the 1999 Settlement Agreement?*

Here is a review of current practices:

- Distinguishing appropriate truck routes (haul routes):
  - Bilingual notices including a map to customers and suppliers about appropriate truck routes and a process to ensure the routes are followed.
  - Signs at the facility direct drivers where to go and of correct routes.
- Noise mitigation:
  - All employees receive a notice about the use of each of the following pieces of noise mitigation equipment:
    - Sound barrier along eastern side
    - Sound attenuators
    - Sound absorbing barriers
      - Bucket elevator head
      - Screen deck tower
      - Slat conveyor head
      - Barriers covering aggregate bin wall and pugmill
    - Air exhaust valve mufflers (20 throughout the plant)
    - Exhaust stack tubular power flow silencer
    - Installed “white noise” back-up alarm on the loader (much quieter than conventional back-up alarms)
- Tarping:
  - A notice to customers and suppliers includes a recommendation that they tarp their loads. Tarping does not mitigate odors but prevents material from spilling out.
- Current emissions monitoring:
  - Berkeley Asphalt conducts tests (Attachment 3) at least every two years as required by the BAAQMD permit.
  - Berkeley Asphalt contracts with a dust mitigation company whose equipment is on site

Additionally, in 2013, Berkeley Asphalt made process improvements. A list of those recommendations and accompanying changes is attached (Attachment 4).

### FUTURE ACTIONS

Councilmembers Maio and Droste have requested a meeting with BAAQMD to answer the following questions:

- What are the odorous and non-odorous emissions from the industries in West Berkeley, what is their cumulative toxicity level, and what can be done to curb them?
- What studies have been done/could be done to examine the cumulative impact of emissions in West Berkeley?
- How can the air quality complaint process be altered to be more user-friendly and efficient?



- Why are inspectors not available 24-7?
- What training do inspectors receive?
- How do inspectors trace the source of an odor and what is then done to mitigate the odor?
- What sampling tools do inspectors use?
- Why can residents only make one complaint a day?
- Why must residents remain home and interact with an inspector if a complaint is logged?
- Why can't minors file a complaint?
- What alternatives to a subjective smell test are available?

#### RECOMMENDED ACTION

Councilmembers Maio and Droste will submit a complete report on their findings and recommendations to Council before the summer break.

#### CONTACT

Councilmember Linda Maio, District 1, 510-981-7110

Councilmember Lori Droste, District 8, 510-981-7180

# Emissions Minimization Plan

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Regulation 12, Miscellaneous Standards of Performance, Rule 13  
Foundry and Forging Operations

Pacific Steel Casting Company LLC

District Site #187, 703, 1603  
1333 Second Street  
Berkeley, CA 94710

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# Designation of Confidential Business Information

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Describe the information you designate as “CONFIDENTIAL” that are trade secret or otherwise exempt under law from public disclosure. Specify what is “CONFIDENTIAL” and include specific section(s) and corresponding page number(s).

Name of Section / Page Number(s)	Description of Confidential Information
Organization Chart / Appendix A	This section is business confidential for security reasons and since their disclosure may give competitors and economic advantage. No bearing on air emissions.
Schedule of Operations / Pg 12	This section is business confidential for security reasons.
Mold and Core Making Operations / Page 14-18	Binders used at the facility are business confidential since their disclosure may give competitors and economic advantage
Description of Operations-Mold and Core Making Operations / Page 20	The Binders, Mix Ratio & MSDS information is proprietary
Appendix C All pages	Plant Layout is business confidential for security reasons and since their disclosure may give competitors and economic advantage

## Company Description

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Pacific Steel Casting Company LLC purchased Pacific Steel Casting Company. The transfer of assets was completed on August 29, 2014.

Pacific Steel Casting Company LLC (PSC LLC) has three (3) separate steel foundries, which are located within a two-block area in Berkeley, California. They are generally referred to as Plant 187, Plant 703 and Plant 1603. The facilities are located in the Berkeley manufacturing and industrial area. Other industrial facilities such as a forging manufacturer, pattern shop, machine shop, railroad lines, and brewery are also located near PSC LLC. Further, PSC LLC is located adjacent and close to a major East Bay freeway.

PSC LLC produces high quality steel casting using different sand molding processes. Thousands of custom-made parts are produced at PSC LLC that are used in everyday lives by individuals and businesses. PSC LLC cast steel parts can be found in bridges, wheelchair lifts, truck parts, agricultural equipment, valves for sanitary sewers, public water systems, the oil and gas industry, landfill compactors and, in the structural aspects of buildings.

PSC LLC employs over 400 employees. Most of them are union members of the Glass Molders and Plastics Union, Local 164. Many of PSC LLC employees are second or third generation foundry employees. More than 85% of PSC LLC employees live near PSC LLC commuting within 15 miles or less. Employees from PSC LLC participate in health and welfare and pension benefits. PSC LLC maintains an excellent safety and health record. PSC LLC regularly works with material manufacturers to develop better and lower emitting products.

PSC LLC purchases scrap metal from qualified vendors. The scrap is melted into metal that are alloys of steel. The molten steel is poured into sand molds. This is the basic sand mold method of producing castings. The metal inside these molds cools and hardens to form the castings. Once the castings have cooled and adopted their forms, they are sent to the shakeout station in which the sand is separated from the casting both internally and externally. Sand from the shakeout station is transferred to a reclamation unit where it is cleaned of material and processed for reuse. This sand reuse conserves tons of new sand that would otherwise be needed and eliminates tons of sand from landfill disposal. The sand reclamation unit at PSC LLC is, and always has been, state of the art equipment. The cooled castings are next sent to the finishing department before going to the shipping department.

In general, each Company plant produces steel castings using sand molding processes that are best suited for the design and size of the casting made at that plant. The binders are mixed with the sand and are used to harden the sand chemically with or without external heat.

Plant 187 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 necessary molds.

Plant 703 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 necessary molds and cores for the castings.

Plant 1603 began operations in 1981. This plant primarily uses a phenolic urethane binder, which is a chemical binder mixed with the sand.



# Company Organizational Chart and Schedule of Management Operators

## 12-13-403.1.3

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- A. Company Organizational Chart- Attach a copy of the organizational chart of the company, which describes the business structure and includes the name of the facility's Responsible Official.
- B. Schedule of Management Operators - Provide the names and contact information of the Onsite Responsible Manager(s) and Onsite Alternate Contact(s) and their duty schedule.

## A. Company Organizational Chart

In Appendix A - Confidential

## B. Schedule of Management Operators

### Onsite Responsible Manager(s)

Name: Confidential  
Title: Environmental, Health & Safety Director  
Phone: Confidential  
Email: Confidential  
Schedule/Shift: Confidential

Name: Confidential  
Title: Chief Operating Officer  
Phone: Confidential  
Email: Confidential  
Schedule/Shift: Confidential

### Onsite Alternate Contact(s)

Name: Confidential  
Title: Environmental Technician  
Phone: Confidential  
Email: Confidential  
Schedule/Shift: Confidential

Name: Confidential  
Title: Supervisor  
Phone: Confidential  
Email: Confidential  
Schedule/Shift: Confidential

Name: Confidential  
Title: Supervisor  
Phone: Confidential  
Email: Confidential  
Schedule/Shift: Confidential

# Contents of the EMP

## 12-13-403

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The owner or operator of the foundry or forge subject to Section 12-13-401 shall prepare a complete and accurate EMP that details the management practices, measures, equipment and procedures that are employed or scheduled to be implemented to minimize fugitive emissions of particulate matter and odorous substances for the operations subject to the EMP.

*A. Operations Subject to EMP and Schedule of Operations*

*B. Description of Operations* - Facilities with operations under 12-13-402 must list and provide description of all process equipment, material usages, abatement and control equipment and monitoring parameters to reduce fugitive emissions of particulates and odors. Please provide information for all the following operations that apply.

*C. Management Practices to Reduce Fugitive Emissions*- Facilities with operations under 12-13-402 must list and provide descriptions of all preventative maintenance activities, pollution prevention and source reduction measures to reduce fugitive emissions of particulates and odors. Provide schedules of activities conducted.

*D. Description of Abatement and Control Equipment*- Facilities must provide a comprehensive list of all abatement and control equipment for operations subject to 12-13-402 and name the source(s) of operation in which it abates.

## A. Operations Subject to EMP and Schedule of Operations

The EMP shall address all of the following operations that are conducted at a foundry or forge per 12-13-402.

Please check all facility operations that apply and provide the schedule of operation.

Operation	Schedule of Operations
<input checked="" type="checkbox"/> 402.1 Mold and Core Making Operations	Confidential
<input checked="" type="checkbox"/> 402.2 Metal Management	Confidential
<input checked="" type="checkbox"/> 402.3 Furnace Operations, including tapping and pouring	Confidential
<input type="checkbox"/> 402.4 Forging Operations	N/A
<input checked="" type="checkbox"/> 402.5 Casting and Cooling Operation	Confidential
<input checked="" type="checkbox"/> 402.6 Shake Out Operations	Confidential
<input checked="" type="checkbox"/> 402.7 Finishing Operations	Confidential
<input checked="" type="checkbox"/> 402.8 Sand Reclamation	Confidential
<input checked="" type="checkbox"/> 402.9 Dross and Slag Management	Confidential

## 402.1 Mold and Core Making Operations

**B. Description of Operations - MOLD AND CORE MAKING OPERATIONS**

Section #	Equipment Name and Manufacturer /Model #	District S# and Applicable NESHAPS Section	NAME OF MATERIALS USED IN MOLDING OPERATIONS				ABATEMENT						
			Binders	Coatings	Adhesives	Mold Release Agents	Other	Source abated	Abatement Required by Permit	A#	Type of Abatement and Purpose of Abatement	Abatement Monitored	Monitoring Parameters
1	187- 4 Mold machine British Molding Machines BMM	Exempt 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	187 - 2 Squeezer machines SPO	Exempt 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	187 - 2 Molding machines BMM	Exempt 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	187 - 2 Core machine Dependable 400 FA, 200SA	Exempt 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	187 - 2 Core machines Redford HS 22 RA	Exempt 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	187 - 6 Core blower systems B & P	Exempt 40 CFR 63.10886	Confidential	Confidential	Confidential	Confidential	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	703 - 2 Shell Molding Machines DSM 3	703 S20, S24 40 CFR 63.10886	Confidential	NA	Confidential	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	

A. Description of Operations - MOLD AND CORE MAKING OPERATIONS													
Section #	Equipment Name and Manufacturer /Model #	District S# and Applicable NESHAPs Section	NAME OF MATERIALS USED IN MOLDING OPERATIONS					ABATEMENT					
			Binders	Coatings	Adhesives	Mold Release Agents	Other	Source abated	Abatement Required by Permit	A#	Type of Abatement and Purpose of Abatement	Abatement Monitored	Monitoring Parameters
8	703 --Shalco Molding Machine DSM 3	703 S21 40 CFR 63.10886	Confidential	NA	Confidential	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		
9	703 - 2 Shalco Molding Machines DSM 3	703 S22, S23 40 CFR 63.10886	Confidential	NA	Confidential	Confidential	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A7	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across Carbon units I-<P<9, Temp <110 F Odor level < 60 odor units	
10	703 - 2 Beardsley & Piper core mach. SF 6 CA	703 S13, S14 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		
11	703 - 4 Redford core machines HS 16 RA	703 S15, S16, S17, S18 40 CFR 63.10886	Confidential	NA	NA	Confidential	NA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		
12	187 - Simpson Sand Muller 1.5	187 S-10 40 CFR 63.10886	Confidential	NA	NA	NA	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A10	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Weekly visual inspections of A10 are performed on the interior and exterior of the unit for mechanical integrity. The filter bags are visually inspected for rips/tears. Verification of pulse jet activity is verified weekly by the inspector.	
13	187 - Omco Sand Mixer MS 1	Exempt 40 CFR 63.10886	Confidential	NA	NA	NA	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	A-10	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Weekly visual inspections of A10 are performed on the interior and exterior of the unit for mechanical integrity. The filter bags are visually inspected for rips/tears. Verification of pulse jet	





A. Description of Operations - MOLD AND CORE MAKING OPERATIONS

Section #	Equipment Name and Manufacturer /Model #	District S# and Applicable NESHAPS Section	NAME OF MATERIALS USED IN MOLDING OPERATIONS				ABATEMENT					Monitoring Parameters	
			Binders	Coatings	Adhesives	Mold Release Agents	Other	Source abated	Abatement Required by Permit	A#	Type of Abatement and Purpose of Abatement		Abatement Monitored
15	187 - B & P Sand Muller 75 B	187 S-8 40 CFR 63.10886	Confidential	NA	NA	NA	NA	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-1, A-7	Baghouse, Shaking into Carbon Adsorption Odors & Particulate	Pressure drop across Carbon units 1<P<9, Temp <110 F
16	703 - Shell sand coating system B&P Muller	703 S-5 thru S-12 40 CFR 63.10886	Confidential	NA	NA	NA	NA	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-4	Baghouse, Shaking Particulate	Daily - Visual inspection for filter and mechanical integrity and particulate Pressure drop across baghouse
17	1603 - Omco Sand Muller LAM 50	1603 S-14 40 CFR 63.10886	Confidential	Confidential	Confidential	Confidential	Confidential	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-5, A-3, A-7, A-8	Dry filter, into Baghouse, Pulse Jet into Carbon Adsorption Odors & Particulate	A3 and A7 - Pressure drop across baghouses - 4.5<P<7; A5 - Visual inspection for filter integrity A8 - FID continuous monitoring At 50 ppm in a 90 minute average); Have full load carbon (52,000 lbs.) on standby within 3 business days. At 65 ppm in a 90 minute average change carbon no later than 7 calendar days. At 85 ppm in a 90 minute average - Cease shakeout operations immediately and pouring operations within 2 hours. Maintain Inlet Face velocity into cooling room, minimum 200 ft/min.
18	1603 - No Bake Molding System	1603 S18, S20 40 CFR 63.10886	Confidential	Confidential	Confidential	Confidential	Confidential	NA	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-3, A-7, A-8	Baghouse, Pulse Jet into Carbon Adsorption Odors & Particulate	A3 and A7 - Pressure drop across baghouses 4.5<P<7; Visual inspection A3 and A7 - Pressure drop across baghouses - 4.5<P<7; Visual inspection A8 - FID continuous monitoring At 50 ppm in a 90 minute average);

<p>Have full load carbon (52,000 lbs.) on standby within 3 business days. At 65 ppm in a 90 minute average change carbon no later than 7 calendar days. At 85 ppm in a 90 minute average - Cease shakeout operations immediately and pouring operations within 2 hours. Maintain Inlet Face velocity into cooling room, minimum 200 ft/min.</p>				<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>A-3, A-7, A-8</p>	<p>Baghouse, Pulse Jet into Carbon Adsorption Odor &amp; Particulate Matter</p>	<p>A3 and A7 - Pressure drop across baghouses - <math>4.5 &lt; P &lt; 7</math>; Visual inspection A8 - FID continuous monitoring At 50 ppm in a 90 minute average): Have full load carbon (52,000 lbs.) on standby within 3 business days. At 65 ppm in a 90 minute average change carbon no later than 7 calendar days. At 85 ppm in a 90 minute average - Cease shakeout operations immediately and pouring operations within 2 hours. Maintain Inlet Face velocity into cooling room, minimum 200 ft/min. Daily - Visual Inspection - particulate</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>1603 - Kloster Core Sand Mixer Type 1</p>	<p>NA 40 CFR 63.10886</p>	<p>Confidential</p>	<p>Confidential</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>NA</p>	<p>Dynamic Air Pulse Cleaner Baghouse Particulate Matter</p>	<p>Dynamic Air Pulse Cleaner Baghouse Particulate Matter</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>1603 - Omco Core Sand Mixer MS1</p>	<p>NA 40 CFR 63.10886</p>	<p>Confidential</p>	<p>Confidential</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>A-3, A-7, A-8</p>	<p>Baghouse, Pulse Jet into Carbon Adsorption Odor &amp; Particulate Matter</p>	<p>A3 and A7 - Pressure drop across baghouses - <math>4.5 &lt; P &lt; 7</math>; Visual inspection A8 - FID continuous monitoring At 50 ppm in a 90 minute average): Have full load carbon (52,000 lbs.) on standby within 3 business days. At 65 ppm in a 90 minute average change carbon no later than 7 calendar days. At 85 ppm in a 90 minute average - Cease shakeout operations immediately and pouring operations</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>



## B. Description of Operations – MOLD AND CORE MAKING OPERATIONS

Provide information on binders used in mold and core making operations.

Section #	Name of Binder	Binder Mix Ratio	Name of Source(s) and/or District S# Where Binder Is Used	Product Specification per MSDS
1	Confidential	Confidential	No Bake Systems Plants 187 Cores & 1603 Molding & Cores	VOC CONTENT (%): Confidential  PHENOL CONTENT (%): Confidential
2	Confidential2	Confidential	No Bake Systems Plants 187 Cores & 1603 Molding & Cores	VOC CONTENT (%): Confidential  PHENOL CONTENT (%): Confidential
3	Confidential	Confidential	No Bake Systems Plants 187 Cores & 1603 Molding & Cores	VOC CONTENT (%): Confidential  PHENOL CONTENT (%): Confidential
4	Confidential	Confidential	Plant 703 - Core & Shell molding S13 - S24	VOC CONTENT (%): Confidential  PHENOL CONTENT (%): Confidential
5	Confidential	Confidential	Plant 703 - Core & Shell molding S13 - S24	VOC CONTENT (%): Confidential  PHENOL CONTENT (%): Confidential
6	Confidential	Confidential	Plant 187 - CO 2 Core Blower System	VOC CONTENT (%): Confidential  PHENOL CONTENT (%): Confidential
7	Confidential	Confidential	Plant 187 Molding	VOC CONTENT (%): Confidential  PHENOL CONTENT (%):

				Confidential
				VOC CONTENT (%): PHENOL CONTENT (%):
				VOC CONTENT (%): PHENOL CONTENT (%):

### C. Management Practices to Reduce Fugitive Emissions – MOLD AND CORE MAKING OPERATIONS

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for core and mold making operations.

Section #	Name of Abatement Device and Manufacturer/Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 A8 Baghouse  Torit/22,000 cfm	1. Check manometer across baghouse 0<P<7. 2. Visual inspection - internal & external , check cartridge filter integrity and condition. 3. Replace cartridge filters based on inspection and/or changing manometer readings .	1. Weekly  2. SemiAnnual  3. As required, based on inspection
2	187 A7 Carbon Adsorption System  Melrose/Blamer Eng. 60,000 cfm	Replace carbon and prefilters based on daily pressure readings across the carbon beds, prefilters and the semi-weekly odor tests	As required - based on monitoring data (1<P<9), Odor test >25 odor units
3	703 A4 Shaker Baghouse  Industrial Clean Air/3-700SW	1. Inspect & lube Shaker & Fan bearings, inspect & check sheaves & V belts 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. Dye check baghouse and replace bags as necessary. Wire brush fan blades.	1. Weekly  2. Quarterly
4	703 A7 Carbon Adsorption System  Melrose	Replace carbon and prefilters based on daily pressure readings across the carbon beds, prefilters and the semi-weekly odor tests	As required - based on monitoring data (1<P<9), Odor test >25 odor units
5	187 A10 Baghouse, Pulse Jet  5,600 cfm	1. Check pulse jet pressures 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3. Replace filter bags based on inspection and/or changing manometer readings .	1. Monthly 2. Quarterly  3. As required, based on inspection
6	187 A1 Baghouse, Pulse Jet  Industrial Clean Air/30,000 cfm	Monitor carbon prefilters, troubleshoot if necessary. Inspection of the interior of baghouse for structural integrity and fabric bag condition. Replace filter bags as necessary.	Daily  Quarterly

7	1603 A3 Baghouse, Pulse Jet Bahnsen/Hawley/HE-378-10	1. Check Manometer across baghouse. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3. Replace bags based on inspection and/or changing manometer readings .	1. Monthly 2. Quarterly 3. As required, based on inspection
8	1603 A7 Baghouse, Pulse Jet Bahnsen/Hawley/HE-378-10	Same as #7	1. Monthly 2. Quarterly 3. As required, based on inspection
9	1603 A8 Carbon Adsorption Melrose	Replace carbon and prefilters based on FID, steel output, pressure drops across carbon bed & prefilters checked daily	Permit required - FID >65ppm (PSC policy when FID outlet >20 ppm and/or >700 tons of steel processed)



**C. Management Practices to Reduce Fugitive Emissions – MOLD AND CORE MAKING OPERATIONS**

Provide description of other housekeeping measures to abate and/or minimize fugitive emissions of odors and/or particulate matter at sources or source areas.

Section #	Description of Housekeeping Measure	Purpose of Activity	Schedule of Activity
1	Sweeping mold & core rooms once per shift, at a minimum.	Contain particulate matter	On going
2	All paved outdoor areas are swept twice per day.	Storage bins containing used sand and/or broken molds are moved and stored outside. Storage areas are swept to remove any spilled or leaking sand, in order to remove a potential source of airborne particulate matter.	Twice per day
3	Visually check exhaust stacks for particulate and dust.	Insure proper functioning of the baghouse, and identify presence of torn bags or bags that have fallen off.	Daily

## 402.2 Metal Management

<b>B. Description of Operations - Metal Management</b>			
<b>Section #</b>	<b>Name of Non-Exempt Metal or Metal Alloy Used for Production</b>	<b>Metal Type</b>	<b>Method of Verification for Determining Chemical Composition</b>
1	Ferrous Feed Stock (Incoming Scrap) - 100% recycled scrap steel	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	All 3 plant scrap yards, yearly random sampling of all vendors - composition verified using Optical Emission Spectrometer and carbon analyzer testing equipment.
2	Ferrous Feed Stock (After Melting) - 100% recycled scrap steel	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	All Heats- composition verified using Optical Emission Spectrometer and carbon analyzer testing equipment. Off specification material identified by heat analysis initiates additional testing of the feed stock in the scrap yard storage.
3	Ferro Chromium	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	Product certified by vendor
4	Ferro Manganese	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	Product certified by vendor
5	Ferro Molybdenum	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	Product certified by vendor
6	Ferro Vanadium	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	Product certified by vendor
7	Nickel	<input type="checkbox"/> Ferrous <input checked="" type="checkbox"/> Non-Ferrous	Product certified by vendor
8	Molybdenum Trioxide	<input type="checkbox"/> Ferrous <input checked="" type="checkbox"/> Non-Ferrous	Product certified by vendor
9	Silicon Manganese	<input type="checkbox"/> Ferrous <input checked="" type="checkbox"/> Non-Ferrous	Product certified by vendor
10	Ferro Aluminum	<input checked="" type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	Product certified by vendor
		<input type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	
		<input type="checkbox"/> Ferrous <input type="checkbox"/> Non-Ferrous	

## B. Description of Operations - Metal Management

**Describe the facility's metal inspection program, work practice standards and material acquisition plan/procedures upon receipt of scrap or unprocessed metal. Include any pollution prevention management practices and source reduction measures to ensure the metal received is clean.**

All Pacific Steel scrap yards are indoors, under cover, to minimize fugitive dust. Only scrap originating from the United States which does not contain motor vehicle scrap is purchased. Each Request for Quote (RFQ) and Purchase Order (PO) provided to a scrap vendor shall include the following;

"Material types not acceptable: Automotive Body Scrap, By-products, cans, cylinders, oil, used oil filters, other lubricants, free organic liquids, chlorinated plastic parts, dirt, engine block components, galvanized, lead components, mercury switches, I-beam, Paint, pipe, plastic, skeleton, tubing, or turnings. Scrap must be lead, mercury and Radiation free."

All 3 plant scrap yards conduct yearly random sampling of all vendors - composition of scrap is verified using Optical Emission Spectrometer and carbon analyzer testing equipment. In addition, all heats are analyzed and the composition is verified. If a discrepant heat analytical result is discovered, additional verification of the scrap used for that heat is conducted. All scrap deliveries to PSC must be visually inspected to make sure that each delivery does NOT contain any of the materials listed above.

If any of the above materials are noted in the delivery, the load is rejected and returned to the suppliers. Any rejected scrap shipments not immediately returned to the supplier, shall be sequestered or visibly marked until the shipment is returned to the vendor.

All scrap yard employees are trained concerning proper metal management handling procedures. Training is conducted yearly.

### **C. Management Practices to Reduce Fugitive Emissions– Metal Management**

**Describe control measures to minimize fugitive emissions from scrap or unprocessed metal.**

All scrap is stored indoors under cover. At the end of each shift the scrap rooms are first swept with a magnetic sweeper to pick up any metal fines, followed by regular sweeping to contain any dust.

## 402.3 Furnace Operations

**B. Description of Operations - FURNACE OPERATIONS**

Section #	Furnace Name and Manufacturer/ Model #	District S# and Applicable NESHAPs Section	Type of Operation	Source abated	Type of Abatement Device	District A#	Purpose of Abatement	Abatement Monitored	Monitoring Parameters
1	187 - Electromelt - Electric Arc Furnace ARC FURNACE QT	187 S-1 40 CFR 63.10895(b) 40 CFR 63.10686	<input checked="" type="checkbox"/> Melting <input type="checkbox"/> Heat Treating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Baghouse, Pulse Jet	A-9	Particulate Matter abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Grain loading less than 0.0017 grains per dry cubic foot. Pressure drop across the baghouse 2<P<12. Semi annual opacity testing
2	187 - 2 Berkley Steel Heat Treat - HEAT TREATING FURNACES Gas fired heat treat oven	187 S-18 Exempt	<input type="checkbox"/> Melting <input checked="" type="checkbox"/> Heat Treating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	703 - Electromelt - ELECTRIC ARC FURNACE CQT 7' 1097	703 S-27 40 CFR 63.10895(b) 40 CFR 63.10686	<input checked="" type="checkbox"/> Melting <input type="checkbox"/> Heat Treating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Baghouse, Shaking	A-3	Particulate Matter abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across the baghouse 1<P<9 Semi annual opacity testing
4	1603 - Whiting EAF Rocker Style ELECTRIC ARC FURNACE	1603 S-1 40 CFR 63.10895(b) 40 CFR 63.10686	<input checked="" type="checkbox"/> Melting <input type="checkbox"/> Heat Treating	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Baghouse, Pulse Jet	A-1	Particulate Matter abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Grain loading less than 0.0033 grains per dry cubic foot. Pressure drop across the baghouse 2<P<12. Semi annual opacity testing
5	8'-0 R.H. Rocker Tilt 1603 - 2 Units - Johnston Gas fired recirculating box type Tempering ovens	Exempt	<input type="checkbox"/> Melting <input checked="" type="checkbox"/> Heat Treating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	1603 - 5 Units - Johnston Gas fired box type Quench heat treat ovens	Exempt	<input type="checkbox"/> Melting <input checked="" type="checkbox"/> Heat Treating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	1603 - Johnston 1524 Gas fired Car bottom normalizing heat treat oven	Exempt	<input type="checkbox"/> Melting <input checked="" type="checkbox"/> Heat Treating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA	NA		<input type="checkbox"/> Yes <input type="checkbox"/> No	
			<input type="checkbox"/> Melting <input type="checkbox"/> Heat Treating	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	

### C. Management Practices to Reduce Fugitive Emissions- FURNACE OPERATIONS

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for furnace operations.

Section #	Abatement Device and Manufacturer/Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 - A-9 BHA/GE 36,000 cfm	Visual inspection of duct exhaust checking for PM. Verify leak detector supply air and opacity readings, check alarms	Daily
2	A-9 Continued	Visual inspection of ductwork system for leaks. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts	Monthly
3	A-9 Continued	Inspection of the interior of baghouse for structural integrity and fabric bag condition. Dye check baghouse, replace bags as necessary	SemiAnnual
4	703 - A-3 Industrial Clean Air 4-3200AE	Visual inspection of duct exhaust checking for PM.	Daily
5	A-3 Continued	Visual inspection of ductwork system for leaks. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts	Monthly
6	A-3 Continued	Inspection of the interior of baghouse for structural integrity and fabric bag condition. Dye check baghouse, replace bags as necessary	SemiAnnual
7	1603 - A-1 Bahnson Hawley/2-294-14-10	Visual inspection of duct exhaust checking for PM. Verify leak detector supply air and opacity readings, check alarms	Daily
8	A-1 Continued	Visual inspection of ductwork system for leaks. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts	Monthly
9	A-1 Continued	Inspection of the interior of baghouse for structural integrity and fabric bag condition. Dye check baghouse, replace bags as necessary	Semi-annual
10	A-9, A-3, A-1	Drain gear box oil and refill, test run	Yearly



**C. Management Practices to Reduce Fugitive Emissions - FURNACE OPERATIONS**

Provide description of other housekeeping measures to abate and/or minimize fugitive emissions of odors and/or particulate matter at sources or source areas.

Section #	Description of Housekeeping Measure	Purpose of Activity	Schedule of Activity
1	Baghouse dust bags secured to baghouse outlet	Eliminate fugitive dust. Baghouse dust is transferred from baghouse to dust bag in a closed system	On going
2	Sweeping around baghouse dust collectors	Removal of potential Particulate Matter	Daily

## 402.4 Forging Operations

B. Description of Operations - FORGING OPERATIONS										
Section #	Equipment Name and Manufacturer/ Model #	District S# and Applicable NESHAP's Section	Description of Use	Name of Lubricants and/or Oils	Other Materials Used	Source abated	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameters
	NA					<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	
						<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No	







## 402.5 Casting and Cooling Operations

B. Description of Operations - CASTING AND COOLING OPERATIONS										
# Section	Name of Pouring and Cooling Operations and Manufacturer/ Model #	District S# and Applicable NESHAPs Section	Cooling Time of Product or Source	Designated Locations of Cooling Operation	Source Abated	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameters	
1	Casting Pour off area Plant 187	187 S2	A-line 1 hr. minimum B-line 3-24 hrs.	A-line cooling deck, B-line main floor	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Baghouse into Carbon Adsorption	Particulate matter and odors	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across Baghouse 1<P<9 Carbon units 1<P<9, Temp <110 F	
2	Cast mold cooling room Plant 703	703 S30	45 min.	Cooling room	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Baghouse into Carbon Adsorption	Particulate matter and odors	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across Baghouse 1<P<9 Carbon units 1<P<9, Temp <110 F	
3	Cooling Room Plant 1603	1603 S19	23 - 131 hrs. dependant on Sleeve Diameter	Cooling Room	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Baghouse into Carbon Adsorption	Particulate matter and odors	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A3 and A7 - Pressure drop across baghouses - 4.5<P<7; Visual inspection A8 - FID continuous monitoring At 50 ppm in a 90 minute average); Have full load carbon (52,000 lbs.) on standby within 3 business days. At 65 ppm in a 90 minute average change carbon no later than 7 calendar days. At 85 ppm in a 90 minute average - Cease shakeout operations immediately and pouring operations within 2 hours. Maintain Inlet Face velocity into cooling room, minimum 200 ft/min.	
					<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
					<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
					<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		
					<input type="checkbox"/> Yes <input type="checkbox"/> No			<input type="checkbox"/> Yes <input type="checkbox"/> No		



## C. Management Practices to Reduce Fugitive Emissions - CASTING AND COOLING OPERATIONS

**Describe the method to verify adequate cooling times are achieved to ensure minimization of fugitive emissions of particulates and odors prior to commencing shake out operations.**

During the design phase of a new part at Pacific Steel Casting, the cooling rate/minimum cooling time is determined. Minimum cooling times are unique to each part. The cooling time is dependent on the mold type, mold size and sleeve size. The cooling time is recorded on all job/part cards. Quality assurance requires all minimum cooling times are achieved. Adequate cooling time is required to avoid hardening, cracking, internal damage or an undesired microstructure in the finished part.

Plant 187 - A Line molding is a batch process. The time each heat/batch is poured is recorded. At all times, the operators verify that each mold has cooled for a minimum of one hour before transferring the mold into the shakeout. During continuous pouring, the time of each heat is recorded, however, the minimum cooling time is achieved due to process constraints. Each batch of molds is poured from a small ladle, filled from the larger furnace ladle. The pouring deck space is limited by the small ladle travel availability. Molds are lined up in the pouring deck area. As a mold is poured it is moved forward on to the cooling deck. To make space for the just poured mold, the molds already on the cooling deck are shuttled forward one position towards the shakeout. The cooling deck has space for multiple molds. As each batch is poured the molds are moved forward one position, on the cooling deck. During continuous pouring, the process of shuttling forward molds, one position for each heat, takes a minimum of one hour before the mold reaches the shakeout unit. Plant 187 - B line Molds are tagged with the pouring date and time and the time after which shakeout can proceed. Employees verify the tags in order to insure the minimum cooling time has transpired, prior to shaking out the parts.

Plant 703 - The molds are loaded on a continuous conveyor line which circulates around from 1) the mold loading station, 2) to the pouring station, 3) into the cooling room (multiple switch backs are located inside the cooling room which insure the minimum cooling times are achieved), 4) to the automatic shakout unit and 5) back to the mold loading station. If the conveyor is continuously run, the parts are in the cooling room for 45 minutes. During normal operations the conveyor is stopped and started, as each heat is poured, increasing the time molds are in the cooling room.

Plant 1603 - Floor molds are tagged on the flask with the pouring date and time and the time after which shakout can proceed. Tags are verified by employees prior to shakout. Line molds have the heat number written on the side of the molds, as they are poured. The melting reports are used to establish the pouring date and time from which the shakout time is verified.

### C. Management Practices to Reduce Fugitive Emissions - CASTING AND COOLING OPERATIONS

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for casting and cooling operations.

Section #	Abatement Device and Manufacturer/Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 A8 Baghouse, Pulse Jet Torit Cartridge	1. Check manometer across baghouse. 2. Visual inspection internal & external, check cartridge filter integrity and condition. 3. Replace cartridge filters based on inspection and/or changing manometer readings.	1. Weekly 2. Semi Annual  3. As required - based on visual inspection findings and/or manometer data
2	187 A7 Carbon Adsorption Melrose/Blamer Eng. 60,000 cfm	Replace carbon and prefilters based on daily pressure readings across the carbon beds, prefilters and the bi-weekly odor tests	As required - based on monitoring data (1<P<9), Odor test >25 odor units
3	703 A2 Baghouse Shaking Industrial Clean Air/10-700 SN	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. Dye check baghouse, replace bags as necessary. Wire brush fan blades.	1. Weekly 2. Semi-Annual
4	703 A7 Carbon Adsorption Melrose	Replace carbon and prefilters based on daily pressure readings across the carbon beds, prefilters and the bi-weekly odor tests	As required - based on monitoring data (1<P<9), Odor test >25 odor units
5	1603 A3 Baghouse, Pulse Jet Bahnson Hwaley/HE-378-10	1. Check manometer across baghouse. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3. Replace bags based on inspection and/or changing manometer readings .	1. Quarterly 2. Semi-Annual  3. As required, based on inspection
6	1603 A7 Baghouse, Pulse Jet Bahnson Hwaley/HE-378-10	1. Check manometer across baghouse. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3. Replace bags based on inspection and/or changing manometer readings	1. Quarterly 2. Semi-Annual  3. As required, based on inspection
7	1603 A8 Carbon Adsorption	Replace carbon and prefilters based on FID, steel output, pressure drops across	Permit required - FID >65ppm (PSC policy)

	Melrose	carbon bed & prefilters checked daily	when FID outlet >20 ppm and/or >700 tons of steel processed)
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**C. Management Practices to Reduce Fugitive Emissions - CASTING AND COOLING OPERATIONS**

Provide description of other housekeeping measures to abate and/or minimize fugitive emissions of odors and/or particulate matter at sources or source areas.

Section #	Description of Housekeeping Measure	Purpose of Activity	Schedule of Activity
1	Configure door openings & room enclosures to enhance odor capture Plant #187 Pouring room, all 2nd street doors 1-C, & 1-J closed at all times, south doors open on calm days. Plant #703 2-D, 2-J doors closed. Plant #1603 3-A, 3-B, 3-D, 3-E, 3-O doors closed.	Eliminate odors through enhanced capture of casting and cooling fugitive emissions.	Daily
2	Hot molds only stored in designated areas. Plant #187 A line cooling deck or B line floor, Plant #703 inside the cooling room on the conveyor line, Plant #1603 inside the cooling room	Ensure molds are located in areas where odor abatement equipment is located	Continuous

## 402.6 Shake Out Operations

B. Description of Operations - SHAKE OUT OPERATIONS									
Section #	Name of Shakeout Operations and Manufacturer/ Model #	District S# and Applicable NESHAPS Section	Describe Location of Shake Out Operation	Source Abated	A#	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameters
1	B Shake Out Simplicity M-11	187 S-3	Floor in the middle of B-line cooling room	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-1, A-7	Baghouse into Carbon Adsorption	Particulate matter and odor abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across Baghouse 1<P<9 / Carbon units 1<P<9, Temp <110 F
2	A Shake Out Floatex MF7	187 S-4	East end of A-line deck	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-1, A-7	Baghouse into Carbon Adsorption	Particulate matter and odor abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across Baghouse 1<P<9 / Carbon units 1<P<9, Temp <110 F
3	Shakeout & Tray Sanding	703 S-31	In clean & finish room just outside the cooling room	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A-1, A-7	Baghouse into Carbon Adsorption	Particulate matter and odor abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across Baghouse 1<P<9 / Carbon units 1<P<9, Temp <110 F
4	Simplicity OA-10-N Casting Mold Shake Out Station General Kinematics TMTM-96X12-0	1603 S-4	Molding room just outside the cooling room	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A3,A7, A-8	Baghouse into Carbon Adsorption	Particulate matter and odor abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Pressure drop across baghouses 4.5<P<7; Visual inspection FID continuous monitoring - At 50 ppm in a 90 minute average); Submit evidence of full load carbon (52,000 lbs.) on standby within 3 business days. Maintain the Inlet face velocity at the openings of the pouring and cooling areas at a minimum 200 fpm .
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	

### C. Management Practices to Reduce Fugitive Emissions - SHAKE OUT OPERATIONS

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for shake out operations.

Section #	Abatement Device and Manufacturer/Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 A1 Baghouse, Pulse Jet Industrial Clean Air	Monitor carbon prefilters. Excessive prefilter pressure can indicate problem with A1 baghouse. Inspection of the interior of baghouse for structural integrity and fabric bag condition, replace bags as necessary	Weekly SemiAnnual
2	187 A7 Carbon Adsorption Melrose	Replace carbon and prefilters based on daily pressure readings across the carbon beds & prefilters and the semi-weekly odor tests	As required - based on monitoring data (1<P<9), Odor test >25 odor units
3	703 A1 Baghouse, Shaker Industrial Clean Air/7-3200AE	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. Dye check baghouse, replace bags as necessary. Wire brush fan blades.	1.Weekly 2.Quarterly
4	703 A7 Carbon Adsorption Melrose	Replace carbon and prefilters based on daily pressure readings across the carbon beds & prefilters and the semi-weekly odor tests	As required - based on monitoring data (1<P<9), Odor test >25 odor units
5	1603 A3 Baghouse, Pulse Jet Bahnson Hwaley/HE-378-10	1.Check manometer across baghouse. 2.Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3.Replace bags based on inspection and/or changing manometer readings.	1. Monthly 2. Quarterly 3.As required, based on inspection
6	1603 A7 Baghouse, Pulse Jet	1.Check manometer across baghouse. 2.Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3.Replace bags based on inspection and/or changing manometer readings	1. Monthly 2. Quarterly 3.As required, based on inspection
7	1603 A8 Carbon Adsorption Bahnson Hwaley/HE-378-10	Replace carbon and prefilters based on FID, steel output, pressure drops across carbon bed & prefilters checked daily	Permit required - FID >65ppm (PSC policy when FID outlet >20 ppm and/or >700 tons of steel processed)





## 402.7 Finishing Operations

B. Description of Operations - FINISHING OPERATIONS										
Section #	Type of Operation	District S# and Applicable NESHAPS Section	Describe Location of Finishing Operation	Number of Machines GRINDERS: WELDERS: OTHER:	Abated Source <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A#	Type of Abatement Device	Purpose of Abatement	Abatement Monitored <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Monitoring Parameters
1	<input checked="" type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:	187 S12	North end of Plant 1, clean & finish room	GRINDERS: 7 WELDERS: OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A4	Baghouse, Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Visual inspection of stack emissions
2	<input type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	187 S13	East Arc-Air Booth in Plant 1 clean & finish room	GRINDERS: WELDERS: 1 OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A4	Baghouse, Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Visual inspection of stack emissions
3	<input type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	187 S14	West Arc-Air Booth in Plant 1 clean & finish room	GRINDERS: WELDERS: 1 OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A6	Baghouse, Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Visual inspection of stack emissions
4	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: Table Blast	187 S15	South wall in Plant 1 clean & finish room next to furnace	GRINDERS: WELDERS: OTHER: 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A3	Baghouse, Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Visual inspection of stack emissions
5	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: RotoBlast	187 S16, S17	East wall and NW corner in Plant 1 clean & finish room	GRINDERS: WELDERS: OTHER: 2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2	Baghouse, Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Visual inspection of stack emissions
6	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: Rotoblast	703 S32	North-West end of Clean & Finish room	GRINDERS: WELDERS: OTHER: 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2 A7	Baghouse Shaker Carbon Adsorption	Particulate Matter Abatement Odor	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse, Pressure Carbon Unit 1<p<9), Odor test >25 odor units
7	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding	703 S33, S34, S35, S36	West end of Clean and Finish lines	GRINDERS: WELDERS: OTHER: 4	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A5	Baghouse Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse 1<p<9)

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Emissions Minimization Plan

8	<input checked="" type="checkbox"/> Other: Cut Off Saw <input checked="" type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:	703 S37, S38, S39, S40	East end of Clean & Finish lines	GRINDERS: 4 WELDERS: OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A5	Baghouse Shaker	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse 1 < P < 9
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B. Description of Operations - FINISHING OPERATIONS										
# Section	Type of Operation	District S# and Applicable NESHAPS Section	Describe Location of Finishing Operation	Number of Machines	Abated Source	A#	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameter
9	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: Tumble Blast	1603 S6	Middle of West Wall	GRINDERS: WELDERS: OTHER: 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2 A6	Baghouse Shaking	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse 1 < P < 9
10	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: Table Blast	1603 S5	East Center wall of Clean & Finish room	GRINDERS: WELDERS: OTHER: 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2 A6	Baghouse Shaking	Particulate Matter Abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse 1 < P < 9
11	<input checked="" type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	5 Grinding stations middle of clean & finish room Plant 187	GRINDERS: 5 WELDERS: OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA			<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	<input type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	8 Welding stations inside Plant 187 Clean & Finish room	GRINDERS: WELDERS: 8 OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA			<input type="checkbox"/> Yes <input type="checkbox"/> No	

13	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: Plasma Unit	Exempt	West side of Plant 187 Clean & Finish room	GRINDERS: WELDERS: OTHER: 1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	<input checked="" type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	Grinding stations in Plant 187 Cell	GRINDERS: 2 WELDERS: OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No	
15	<input type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	Welding stations in Plant 187 Cell	GRINDERS: WELDERS: 9 OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A		<input type="checkbox"/> Yes <input type="checkbox"/> No	
16	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input checked="" type="checkbox"/> Other: Rotoblast.	Exempt	East end of Plant 187 Cell	GRINDERS: WELDERS: OTHER: 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	Baghouse	Particulate Matter	Daily - Visual inspection of stack emissions

B. Description of Operations - FINISHING OPERATIONS										
# Section	Type of Operation	District S# and Applicable NESHAPS Section	Describe Location of Finishing Operation	Number of Machines	Abated Source	A#	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameters
17	<input checked="" type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	South Wall of Tombstone	GRINDERS: 9 WELDERS: OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	N/A			<input type="checkbox"/> Yes <input type="checkbox"/> No	
18	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding	Exempt	Middle North Wall of Tombstone	GRINDERS: WELDERS: OTHER: 1	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	Baghouse	Particulate Matter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse

19	<input checked="" type="checkbox"/> Other: Shot Blast Mach. <input type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	Arc-Air Booths NW corner of Plant 1603 Clean & Finish room	GRINDERS: 2 WELDERS: 2 OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2, A6	Baghouse, Shaking	Particulate Matter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse
20	<input checked="" type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	Combination grinding/welding booths located on South and West end of Plant 1603 C&F room	GRINDERS: 8 WELDERS: 8 OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2, A6	Baghouse, Shaking	Particulate Matter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse
21	<input type="checkbox"/> Grinding <input checked="" type="checkbox"/> Welding <input type="checkbox"/> Other:	Exempt	Welding booths located SE corner of Plant 1603 C&F room	GRINDERS: 4 WELDERS: 4 OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A2, A6	Baghouse, Shaking	Particulate Matter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily - Pressure drop across baghouse
	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:			GRINDERS: WELDERS: OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:			GRINDERS: WELDERS: OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
	<input type="checkbox"/> Grinding <input type="checkbox"/> Welding <input type="checkbox"/> Other:			GRINDERS: WELDERS: OTHER:	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	

### C. Management Practices to Reduce Fugitive Emissions- FINISHING OPERATIONS

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for finishing operations.

Section #	Abatement Device and Manufacturer/Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 A2 Baghouse Shaker Industrial Clean Air/6-700	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition.	Quarterly Semi Annual
2	187 A3 Baghouse Shaker Industrial Clean Air/10,000 cfm	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition	Quarterly Semi Annual
3	187 A4 Baghouse Shaker Industrial Clean Air/30,000 cfm	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition	Quarterly Semi Annual
4	187 A6 Baghouse Shaker Industrial Clean Air/8,000 cfm	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition	Quarterly Semi Annual
5	703 A2 Industrial Clean Air/10-700SN	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition /dye check baghouse, replace bags as necessary. Wire brush fan blades.	Quarterly Semi Annual
6	703 A7 Melrose	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition /dye check baghouse, replace bags as necessary. Wire brush fan blades.	Quarterly Semi Annual
7	703 A5 Industrial Clean Air/M-7-800SW	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag	Quarterly Semi Annual

		condition /dye check baghouse, replace bags as necessary. Wire brush fan blades.	
8	1603 A2 Pitter Metal Pulse Jet	1. Inspect & lube fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition / dye check baghouse, replace bags as necessary.	Quarterly Semi Annual
9	1603 A6 Pitter Metal Pulse Jet	1. Inspect & lube fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition / dye check baghouse, replace bags as necessary.	Quarterly Semi Annual

**C. Management Practices to Reduce Fugitive Emissions - FINISHING OPERATIONS**

Provide description of other housekeeping measures to abate and/or minimize fugitive emissions of odors and/or particulate matter at sources or source areas.

Section #	Description of Housekeeping Measure	Purpose of Activity	Schedule of Activity
1	Run magnetic sweeper followed by Auto Sweeper	Pick up and remove particulate matter from operational area	Twice per shift
2	Visually check exhaust stacks for particulates and dust.	Insure proper functioning of the baghouse, and identify presence of torn bags or bags that have fallen off.	Daily



## 402.7 Sand Reclamation

B. Description of Operations - SAND RECLAMATION									
# Section	Name of Sand Reclamation Equipment and Manufacturer/Model #	District S# and Applicable NESHAPS Section	Describe Type of Sand Reclamation Equipment	Abated Source	A#	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameters
1	2 Screens - Vibrating & Rotating Jeffery/Rotex	187 S6, S7	Sand Cooler, 6 screen w/mold release vibrating unit & Rotating sand screen	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A1 A7	Baghouse Pulse Jet / Carbon Adsorption	Particulate Matter Odors	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Daily visual check for particulates and dust. Carbon units Pressure 1<P<9, Temp <110 F
2	Thermal Recovery Lump Breaker Dependable	703 S45	Lump reducer	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A10	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
3	TR Flow Bin - Rejected matl.	703 S46	Magnetic Separator, sand hopper & bucket elevator	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A10	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
4	TR Sand Cooler/Air Bed Dependable/VTO JDR	703 S47	Sand Cooler, cooling tower & bucket elevator	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A10	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
5	TR Material Handling Equip. Dependable	703 S48	3 hoppers, 3 bucket elevators	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A10	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
6	Thermal Recycling Unit Dependable 2 TPH HTCC	703 S49	2 ton per hour gas fired thermal sand reclaimers	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A10	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
7	Sand Cooler Classifier Omco Fin Type	1603 S9	Fin type sand cooling system	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A4	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
8	2 Sand Conditioning Units B & P Pneu-claim	1603 S10, S11	Pneumatic sand reclaimers	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A4	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
9	2 Sand storage silos	1603 S12, S13	Return sand bin, Reclaimed sand bin	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A4	Baghouse Pulse Jet	Particulate Matter	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Daily visual check for particulates and dust.
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No	

**C. Management Practices to Reduce Fugitive Emissions - SAND RECLAMATION**

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for sand reclamation making operations.

Section #	Abatement Device and Manufacturer/Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 A1 Baghouse Shaking  Industrial Clean Air 30,000cf	Monitor carbon prefilters. Increased prefilter pressure indicates A1 baghouse inefficiencies, troubleshoot if necessary. Visual inspection internal (bag condition (holes), linkage wear, excessive build-up, inner shell for holes) & external (outer shell for holes, leaks and seal condition). Replace or repair items based on inspection findings.	Daily  Semi Annual
2	187 A7 Carbon Adsorption  Melrose	Replace carbon and prefilters as necessary based on odor test & pressure drops across carbon bed & prefilters checked daily	As required - based on monitoring data (1<P<9), Odor test >25 odor units
3	703 A10 Pulse Jet Baghouse  Sly/STJ-1511-10	Check pulse jet pressure. Check baghouse and filter cartridge integrity. Replace cartridge filters as necessary.	Weekly  Semi Annual
4	1603 A4 Baghouse Pulse Jet  Bahnsen Hawley HE-210-10	Inspect & lube fan bearings, inspect & check sheaves & V belts. Visual inspection internal (bag condition (holes), linkage wear, excessive build-up, inner shell for holes) & external (outer shell for holes, leaks and seal condition). Replace or repair items based on inspection findings.	Quarterly  Semi Annual

**C. Management Practices to Reduce Fugitive Emissions - SAND RECLAMATION**

Provide description of other housekeeping measures to abate and/or minimize fugitive emissions of odors and/or particulate matter at sources or source areas.

Section #	Description of Housekeeping Measure	Purpose of Activity	Schedule of Activity
1	Plant 187 sand reclaim unit is on the roof of the building. Regular roof inspections are conducted. Roof sweeping is conducted if any sand is observed on the roof.	Remove particulate matter	Weekly

## 402.9 Dross and Slag Management

B. Description of Operations - DROSS AND SLAG MANAGEMENT									
Section #	Material	Location for Cooling of Material	Abated Source	A#	Type of Abatement Device	Purpose of Abatement	Abatement Monitored	Monitoring Parameters	Material Disposition
1	Dross	Do not generate dross - associated with non ferrous metals	<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Offsite Recycling <input type="checkbox"/> Offsite Disposal <input type="checkbox"/> Onsite Reprocessing
2	Slag	Plant 187 Between EAF and B line pouring Plant 703 Melting room North end Plant 1603 Pouring room South end	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	A8, A7 A1, A7 A3, A7, A8	Baghouse into Carbon unit	Particulate matter and odor abatement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	187 & 703 - Carbon units Pressure 1 < P < 9, 703 - Temp < 110 F 1603 - Permit required - FID > 65 ppm (PSC policy when FID outlet > 20 ppm and/or > 700 tons of steel processed)	<input checked="" type="checkbox"/> Offsite Recycling <input checked="" type="checkbox"/> Offsite Disposal <input type="checkbox"/> Onsite Reprocessing

### C. Management Practices to Reduce Fugitive Emissions - DROSS AND SLAG MANAGEMENT

Provide description of preventative maintenance (PM) activities including PM schedules and work practice standards for each abatement device for dross and slag operations.

Section #	Abatement Device and Manufacturer/ Model #	Description of Preventative Maintenance Activity and Work Practice Standards	Schedule of PM
1	187 A8 Baghouse, Pulse Jet  Torit Cartridge	1. Check manometer across baghouse. 2. Visual inspection internal (condition of filter railings and integrity/condition of cartridge filter) & external (frame integrity, diaphragm seal). 3. Replace cartridge filters, based on inspection and/or changing manometer readings .	1. Weekly 2. SemiAnnual  3. As required, based on inspection
2	187 A7 Carbon Adsorption  Melrose	Replace carbon and prefilters as necessary based on odor test & pressure drops across carbon bed & prefilters checked daily	As required - based on monitoring data (1<P<9), Odor test >25 odor units
3	703 A2 Baghouse Shaking  Industrial Clean Air/10-700 SN	1. Inspect & lube shaker & fan bearings, inspect & check sheaves & V belts. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition/dye check baghouse, replace bags as necessary. Wire brush fan blades.	1. Weekly 2. Quarterly
4	703 A7 Carbon Adsorption  Melrose	Replace carbon and prefilters as necessary based on odor test & pressure drops across carbon bed & prefilters checked daily	As required - based on monitoring data (1<P<9), Odor test >25 odor units
5	1603 A3 Baghouse, Pulse Jet  Bahnson Hwaley/HE-378-10	1. Check manometer across baghouse. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3. Replace cartridge filters based on inspection and/or changing manometer readings	1. Monthly 2. Quarterly  3. As required, based on inspection
6	1603 A7 Baghouse, Pulse Jet  Bahnson Hwaley/HE-378-10	1. Check manometer across baghouse. 2. Inspection of the interior of baghouse for structural integrity and fabric bag condition. 3. Replace cartridge filters based on inspection and/or changing manometer readings	1. Monthly 2. Quarterly  3. As required, based on inspection

7	1603 A7 Carbon Adsorption Melrose	Replace carbon and prefilters as necessary based on FID, pressure drops across carbon bed & prefilters checked daily	Permit required - FID >65ppm (PSC policy when FID outlet >20 ppm and/or >700 tons of steel processed)



**C. Management Practices to Reduce Fugitive Emissions - DROSS AND SLAG MANAGEMENT**

Provide description of other housekeeping measures to abate and/or minimize fugitive emissions of odors and/or particulate matter at sources or source areas.

Section #	Description of Housekeeping Measure	Purpose of Activity	Schedule of Activity
1	Monitor bin loading to avoid overloading	Eliminate spills	On going
2	Sweep area after loading trucks for offsite disposition	Remove particulate matter	Every load pick up
3	Configure door openings & room enclosures to enhance odor capture Plant #187 Pouring room, all 2nd street doors 1-C, & 1-J closed at all times, south doors open on calm days. Plant #703 2-D, 2-J doors closed. Plant #1603 3-A, 3-B, 3-D, 3-E, 3-O doors closed.	Eliminate odors through enhanced capture of slag emissions	Daily

**B. Description of Abatement and Control Equipment**

Provide a comprehensive list of all abatement and control equipment for operations subject to 12-13-402 and identify the source(s) of operation in which it abates. If the abatement equipment abates multiple sources, provide a detailed description of how the abatement is designated to those sources.

Section #	Name of Abatement Equipment	District A#	Names of Source(s) Abated	District S#	Description of Abatement
1	187 A1 Baghouse	A1	A line Shakeout, B line Shakeout, Sand Muller, Sand reclaim system	S3, S4, S5, S6, S7, S8	Pulse Jet
2	187 A2 Baghouse	A2	Two Rotoblast units located in Clean & Finish room	S16, S17	Shaker
3	187 A3 Baghouse	A3	Table Blast	S15	Shaker
4	187 A4 Baghouse	A4	Cleaning & Grinding Dept., Arc-Air Booth	S12, S13	Shaker
5	187 A6 Baghouse	A6	Arc-Air Booth	NA	Shaker
6	187 A7 Adsorption, Activated carbon	A7	Pouring Area (S2) A line (S4) & B line (S3) shakeouts Sand reclaim (sand cooler,sand screen) (S6, S7) Sand Mixer (S5, S8)	S2, S3, S4, S5, S6, S7, S8	A8 Pulse Jet-S2. A1 Pulse Jet-S3,S4,S5,S6,S7,S8. CA-1, CA-2a and CA-2b Carbon bed-A1 Baghouse and A8 Baghouse.
7	187 A8 Baghouse	A8	Pour off area, main floor	S2	Pulse Jet
8	187 A9 Baghouse	A9	Electric Arc Furnace	S1	Shaker
9	187 A10 Baghouse	A10	Core Sand Muller	S10	Pulse Jet
10	187 E25 Baghouse	Exempt	Plant 1 Cell Rotoblast	NA	Shaker
11	703 A1 Baghouse	A1	EAF Ladle Station w/ canopy hood, Shell Mold Pour Station,Shakeout	S28, S29, S31	Shaker

Section #	Name of Abatement Equipment	District A#	Names of Source(s) Abated	District S#	Description of Abatement
12	703 A2 Baghouse	A2	Cast Mold Cooling Room, Rotoblast	S29, S31	Shaker
13	703 A3 Baghouse	A3	EAF Electric Arc Furnace	S27	Shaker
14	703 A4 Baghouse	A4	Sand Heater, Sand Coating, Coated sand pug mill, Coated sand vibrating screen, Bucket elevator	S6, S7, S8, S9, S10	Shaker
15	703 A5 Baghouse	A5	Sand silos #1, #2 & loading elevator, Bucket elevator, 4 abrasive cut-off saws, 4 grinders	S1, S2, S3, S4, S33-S40	Shaker
16	703 A10 Baghouse	A10	Sand silo, Lump breaker, flow bin, Sand cooler, Material handling equipment, Thermal recycling unit	S44,S45 S46,S47 S48,S49	Pulse Jet
17	703 T127 Baghouse	Exempt	Shot blast machine	NA	Pulse Jet
18	703 A7 Adsorption, Activated Carbon	A7	EAF Ladle Station w/ canopy hood (S28) Shell Mold Pour Station (S29) Shakeout (S31) Cooling Room (S30) Rotoblast (S32) 2 Shell twin molding machines (S22, S23) Electric Arc Furnace	S22,S23 S28,S29 S30,S31 S32	A1 Shaker-S28, S29,S31. A2 Shaker-S30,S32. CA-1 carbon bed-A2 Baghouse. CA-2 & CA-3 Carbon bed-S22,S23 and A1 Baghouse.
19	1603 A1 Baghouse	A1		S1	Pulse Jet
20	1603 A2 Baghouse	A2	Blast table, Rotoblast, Arc-air booths, Welding booths	S5, S6	Shaker
21	1603 A3 Baghouse	A3	Mold Shakout, Sand Mixer utilizing Techniset binders, Mold coating, Pouring/cooling	S4, S14 S18,S19	Pulse Jet
22	1604 A4 Baghouse	A4	Sand silo #1, Sand cooler, Sand conditioning units #1 & #2, Return sand bin #1 & #2, Sand elevators #1, #2, & #3.	S7, S9, S10,S11 S12,S13 S15,S16 S17	Pulse Jet

Section #	Name of Abatement Equipment	District A#	Names of Source(s) Abated	District S#	Description of Abatement
23	1604 A5 Baghouse	A5	Sand Mixer utilizing Techiset Binders	S14	Dry Filter
24	1603 A6 Baghouse	A6	Blast table, Tumble blast, Arc-air booths, Welding booths	S5, S6	Shaker
25	1603 A7 Baghouse	A7	Mold Shakeout, Sand Mixer utilizing Techiset binders, Mold coating, Pouring/cooling	S4, S14 S18, S19	Pulse Jet
26	1603 A8 Adsorption, Activated Carbon	A8	Mold Shakeout (S4) Sand Mixer utilizing Techiset binders (S14) Mold coating (S18) Pouring/cooling (S19)	S4, S14 S18, S19	A3 and A7 Pulse Jet-S4, S14, S18 and S19. CA-1, CA-2 and CA-3 Carbon bed-A3 Baghouse and A7 Baghouse.

# Technical Data

## 12-13-403.1

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- A. Process Flow Diagram* – Facilities must indicate all operations in Section 12-13-402, the flow of materials used and identify all monitoring of processes, abatement and controls to minimize emissions beginning from material receipt to achievement of final product. Identify all abatement and control devices by District source numbers according to District Permit or as exempt from District Permit.
- B. Facility Layout / Floor Plan* - Facilities must indicate all relative locations of processing equipment and monitoring and controls, all permitted and exempt sources identified in the process flow diagram per Section 12-13-403.1.1 and any other source(s) that may contribute to particulates and odors. Include all building walls, partitions, doors, windows, vents and openings and indicate all areas that have abatement for particulates and odors. Identify all metal melting and processing equipment by District source numbers according to District Permit or as exempt from District Permit.

## A. Process Flow Diagram

Appendix B - Confidential

**B. Facility Layout / Floor Plan**

Appendix C - Confidential.

# Fugitive Emissions Reductions Previously Realized

## 12-13-403.2

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Facilities must provide a description of the equipment, processes and procedures installed or implemented within the last five years to reduce fugitive emissions. Include the purpose for implementation and detail any employee training that was conducted for that equipment, process or procedure and the frequency of any ongoing training.



12-13-403.2 FUGITIVE EMISSIONS PREVIOUSLY REALIZED						
# Section	Identify Type of Operation per Section 12-13-402	Description of Equipment, Processes or Procedures Previously Realized	Implementation Date	Purpose of Implementation	Employee Training Conducted	Description of Employee Training and Frequency of Training
1	Mold & core making, metal management, Furnace operations, casting & cooling, shakeout, finishing, Sand reclaim, Slag	Odor Management Plan approved by BAAQMD	10/03/2008	Reduce odors and particulate matter.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	All employees trained after initial roll out. Yearly refresher training is conducted. Plan elements are also incorporated into PSC operating procedures. Job specific training is included during PSC operating procedure training, when conducted.
2	Mold & core making, casting & cooling, shakeout, Sand reclaim	Plant 1603 change to lower VOC binder;	2008	Reduce VOC emissions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial training to make employees aware of the sand recipe change.
3	Furnace operations	Plant 1603 EAF Room fume collection installed;	2008	Increase capture efficiency of odors and particulate matter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maintenance trained on equipment PM
4	Mold & core making, casting & cooling, shakeout, Sand reclaim	Plant 703 precoated sand changed to lower VOC product	2009	Reduce VOC emissions	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Employees trained on new MSDS after change.
5	Casting & cooling, shakeout	Plant 187 Main Floor fume collection directed to baghouse and carbon unit	2010	Increase capture efficiency of odors and particulate matter	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maintenance trained on equipment PM
6	Mold & core making	Plant 187 Core Room baghouse installed.	2010	Abate core room particulate matter.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maintenance trained on equipment PM
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	

# Schedule for the Implementation of the EMP Elements

## 12-13-403.3

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- A.* Provide a list of existing or current EMP elements in place pursuant to and under a District Authority to Construct as of the initial date of EMP submittal (on or before May 1, 2014). Include a description, the purpose and schedule of the element(s).
  
- B.* Provide a list of new or future EMP elements to be implemented following APCO approval of the EMP. Include a description, the purpose and schedule of the element(s) to be implemented.

A. 12-13-403.3.1 SCHEDULE FOR THE IMPLEMENTATION OF THE EMP ELEMENTS (on or before May 1, 2014)						
Section #	Identify Type of Operation per Section 12-13-402	List Specific Elements to be Implemented on or before May 1, 2014	Implementation Date	Description of Elements to be Implemented	Purpose of Implementation	
	NA					

<b>B. 12-13-403.3.2 NEW OR FUTURE EMP ELEMENTS TO BE IMPLEMENTED</b>						
<b># Section</b>	<b>Identify Type of Operation per Section 12-13-402</b>	<b>List Specific Elements to be Implemented Following APCO Approval of the EMP</b>	<b>Implementation Date</b>	<b>Description of Elements to be Implemented</b>	<b>Purpose of Implementation</b>	
1	Mold and Core Making - 703	Consider installation of ventilation hoods over S-19 and S-26	To Be Determined	Working with Engineering and District Staff to determine equipment capabilities and permit requirements for implementation/installation of hoods over S-19 and S-26	Further reduce fugitive emissions of PM and odors	
2	Casting and Cooling - 187	Consider installing wall to isolate pouring operations in Plant I	To be Determined	Working with Engineering and District Staff to determine feasibility and permit requirements for implementation/installation of wall	Further reduce fugitive emissions of PM and odors	
3	Mold Shakeout/Sand Mixer utilizing Techniset binders Mold coating Pouring/cooling - 1803	Consider increasing carbon system capacity which affects: Mold Shakeout (S4) Sand Mixer (S14) Mold coating (S18) Pouring/cooling (S19)	To be Determined	Working with Engineering and District Staff to determine equipment capabilities and permit requirements for implementation	Improve abatement capacity	
4	Sand Reclamation - 703	Consider connecting Sand Reclamation Unit (S-49) to Carbon Unit	To be Determined	Working with Engineering and District Staff to determine equipment capabilities and permit requirements for implementation	Further reduce fugitive emissions of PM and odors	

# Compliance Schedule for the EMP

## 12-13-404

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- A. *APCO Recommendations to EMP and Determination of Approvability*– Acknowledge acceptance or rejection of each of the APCO’s recommendations. For each of the accepted recommendations, describe the measures to be implemented and include the date of proposed implementation. If the facility rejects a recommendation, provide a detailed basis for that rejection.

**A. APCO Recommendations to EMP and Determination of Approvability (12-13-405)**      Date of EMP:

Provide determination of acceptance to APCO recommendations. Include the determination of acceptance by the facility's Responsible Manager and the basis for rejecting any APCO recommendations. If recommendation is accepted, include measures to implement APCO recommendation and the proposed date of implementation.

Section #	Date of APCO Recommendation	(FOR APCO USE ONLY) APCO Recommendation	Acceptance of APCO Recommendation	If NO: Basis for Rejecting APCO Recommendation	If YES: Measures to Implement Recommendation	Proposed Date of Implementation	(APCO USE ONLY) Implementation Verified by APCO
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No

## A. APCO Recommendations to EMP and Determination of Approvability (12-13-405)

Date of EMP:

Provide determination of acceptance to APCO recommendations. Include the determination of acceptance by the facility's Responsible Manager and the basis for rejecting any APCO recommendations. If recommendation is accepted, include measures to implement APCO recommendation and the proposed date of implementation.

Section #	Date of APCO Recommendation	(FOR APCO USE ONLY) APCO Recommendation	Acceptance of APCO Recommendation	If NO: Basis for Rejecting APCO Recommendation	If YES: Measures to Implement Recommendation	Proposed Date of Implementation	(APCO USE ONLY) Implementation Verified by APCO
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No				<input type="checkbox"/> Yes <input type="checkbox"/> No

# Appendix

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If additional information are to be included in the EMP, identify the associated Appendix # as “\*#\*” in the text box of the specific table.

In the table below, note the Appendix # and provide the Page # and Section # of the EMP where the material references.

Appendix #	Reference to Page # and Section # of EMP
A	Page #9 , Section # 403.1.3 A
B	Page #75 , Section # 403.1.A
C	Page #76 , Section # 403.1.B
	Page # , Section #
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**Appendix # A**

**Reference to Page #9, Section #** Confidential

**Retrofit any batch  
or drum**



- No Smoke
- No Odor
- No Fumes
- No Chemicals
- No Problem!

**The Simple,  
Reliable,  
Cost-efficient  
WMA System  
from the  
Asphalt  
Experts**





**Benefits:**

- No smoke - no odor
- Quick & easy installation
- Retrofit ANY plant
- Easy to operate
- Lower fuel costs
- Reduce labor costs
- Improve worker safety
- Reduce emissions
- Run more RAP

**Purchase for Less**

The AQUABlack® System costs significantly less than most of the WMA systems currently available. In some cases, half the price. It is designed with simplicity and reliability in mind by the world's foremost experts in asphalt plant retrofit applications – MAXAM.

**Quick and Easy Installation**

The flexible system retrofits onto any plant and can be installed over a weekend. The unit comes completely assembled. Simply attach it to your A/C line, hook it up to a water source, install the control panel, and you're ready to go.

After installation, we offer a Field Technician to your site for two days of start up and training. Training takes only about an hour since operation is so simple. Once it's set up, you simply turn it on or off as needed.

**Run More RAP**

Lower temperatures means you can run more RAP and stay within the temperature limits of your baghouse.

**Save Time**

In field tests, AQUABlack® warm mix asphalt consistently reaches targeted compaction rates with fewer roller passes. It also enables paving in cooler weather, extends the paving season, and permits faster release of the pavement to traffic. As the air bubbles created in the foaming process are completely removed during the rolling and compaction process, superior in-place densities are achieved with less rolling effort. In some cases, 25% less.

**Reduce Fuel Consumption**

Lower temperatures means lower fuel consumption. Often as much as 15%. It also means the exhaust fan doesn't have to work as hard, saving energy spent on moving air.

**Reduce Emissions**

Lower fuel consumption translates directly into lower emission of greenhouse gases at the plant from drying and heating of the aggregate. The fumes and smoke at the plant load-out, and at the laydown site, are also eliminated.

**Simplify Maintenance**

Some WMA systems use 10 or more solenoids to control critical components. We thought simpler was better. We thought you'd rather be running your plant than running to get replacement parts.

**Extend Equipment Life**

Lower temperatures reduces the wear and tear on equipment; extends maintenance intervals and reduces overall maintenance costs.



## Components:

### PLC Based Touch Screen Control Panel

The touch-screen Control Panel is mounted in the control house and easily connected to the metering system using multi-conductor cable. When the operator sets max tons on the control panel, the system automatically calculates the correct amount of water to be injected into the WMA, and sets the water pump drive to the proper output rate. A mass flow meter monitors flow rate and sounds a warning if it goes out of the optimum range.

### High-pressure Variable Speed Metering System

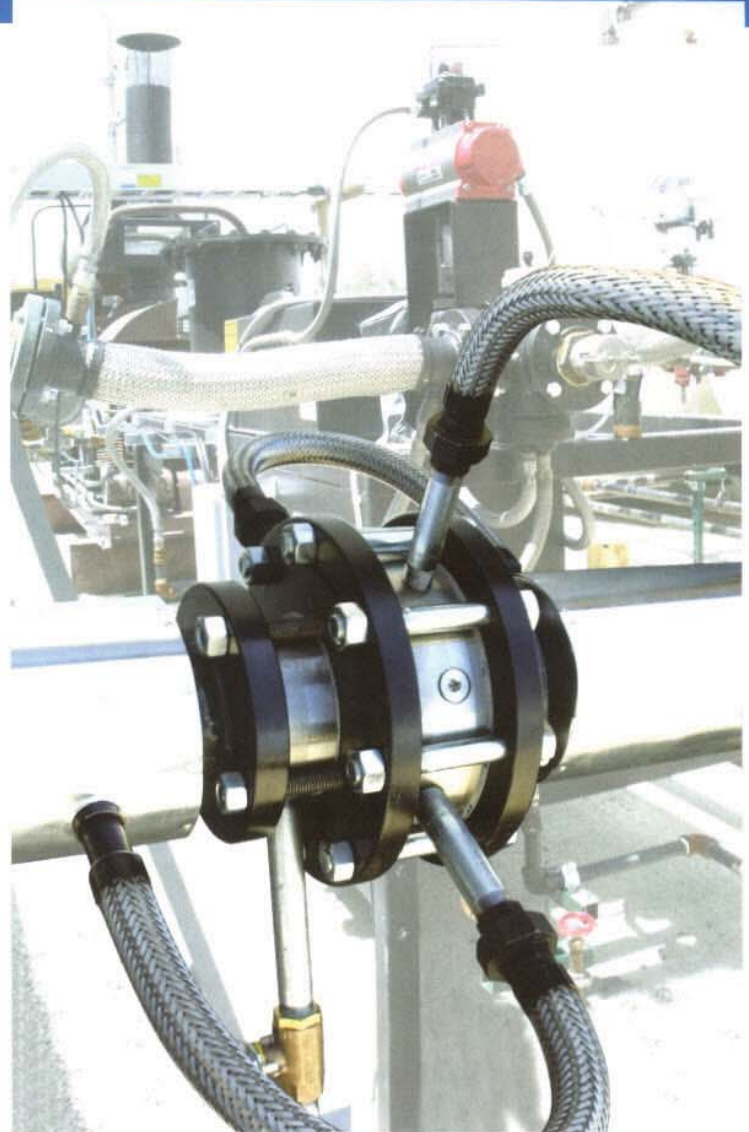
The high-pressure variable speed metering system comes completely pre-piped and prewired, and is enclosed in a weather tight enclosure. The enclosure is heated for cold weather operation. The system is equipped with an automatic compressed air purge that cleans water out of the delivery line upon shutdown to prevent freezing.

### AQUABlack® Foaming Gun

The AQUABlack® all stainless Foaming Gun comes with all required water hose and hot oil jumpers for installation. It is inserted into the existing a/c line just prior to entering the drum. Access nozzle service ports means that no disassembly is required for inspection of your system.

### AQUABlack® Solutions features:

- High volume foaming with MicroBubble™ technology. Any system can produce foam, but it's the microbubbles that stay in the mix throughout the mixing, hauling and paving process.
- Automatic PLC based touch screen control
- Enclosed and heated for all weather operation
- Stainless construction to eliminate corrosion. The stainless steel mixing diffuser provides even distribution of the water throughout the liquid asphalt.
- Built for 1,000 psi operating pressure
- No moving parts in the meter. This meter will not plug or fail from scale or particulate in the water.
- The high-pressure system enables low water-to-liquid-asphalt ratio during foaming and creates the microbubbles which stay in the mix until compaction.





## Will you go back and forth between hot and warm mix asphalt?

If so, you need to take precautions to protect your baghouse. Here's why: The lower exhaust temperature from WMA can cause condensation in the baghouse, creating acid rain that will damage your equipment, and mud-cake the bags - saddling you with high replacement costs and unnecessary down-time. You need an effective way to control the stack temperature to protect your baghouse. The answer is the patented MAXAMizer® Heat Recovery System. It automatically maintains proper stack temperature +/-5°, and typically saves 5-to-10% in fuel consumption.

## Being More Competitive in a Go Green Business Climate

### Go Green or Go Home

More and more jobs are being specified with a WMA option. If you can't offer WMA, you may not qualify to even bid on a lot of jobs in the future. You don't have to be on the outside looking in. The AQUABlack® WMA System easily retrofits onto any manufacturer's asphalt plant, and it can be installed on yours in just two days.

### Going Green is Good Business

The AQUABlack® WMA System opens doors by allowing you to bid on jobs specified as WMA only. It makes your company more neighborhood friendly by reducing fumes and pollutants. It makes you a more responsible/credible member of the business community; and it helps you attract and retain good employees. If you had your choice of working on a HMA crew or a WMA crew, which would you choose?

### Protect Workers and Your Business

While the adverse affects of breathing asphalt fumes are negligible, OSHA, NIOSH and the EPA continue to conduct studies to gauge its affect on health. NIOSH says additional studies are needed to better characterize occupational exposures to asphalt fumes, vapors and aerosols. Why wait? Move to WMA now with the easy-to-implement system – AQUABlack®.



## MAXAM Equipment, Inc.

1575 Universal Avenue • Kansas City, MO 64120 800•858•6070



092810



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

June 11, 2014

Seth L. Watkins,  
Plant Manager  
**Berkeley Asphalt Company**  
699 Virginia Street  
Berkeley, CA 94710

Dear Mr. Watkins:

Enclosed are the results of the source tests that this District conducted on your *Rotary Dryer (S-1) abated by Cyclone & Baghouse (A-4 & A-7) on April 15 & 16, 2014.*

These data are considered to be representative of the emissions from this source for the operating parameters described during the test times and are forwarded as a courtesy for your information.

Your cooperation with our test personnel is appreciated. Please contact Charles McClure, Supervising Air Quality Engineer, if you have any questions regarding these data.

Sincerely,

A handwritten signature in black ink that reads "Robert Bartley".

Robert Bartley  
Air Quality Engineering Manager

RB:CM:ge

Enclosure

Distribution: Firm Permit Services Requester	<b>BAY AREA                  AIR QUALITY MANAGEMENT DISTRICT</b> 939 Ellis Street San Francisco, California 94109 (415) 771-6000 <b>SUMMARY OF                  SOURCE TEST RESULTS</b>	Report No. <u>14181</u> Test Date: <u>04/15&amp;16/14</u>  Test Times: Run A : <u>1055 – 1157 60 min</u> Run B : <u>0800 – 0903 60 min</u> Run C : <u>0935 – 1038 60 min</u>
---	---	--

Source Information		BAAQMD Representatives
Firm Name and Address: Berkeley Asphalt Company 699 Virginia Street Berkeley, CA 94710	Firm Representative and Title: Seth L. Watkins Plant Manager  Phone No. (510) 526-1611  Source: Rotary Dryer (S-1) abated by Cyclone & Baghouse (A-4 & A-7)  Site No. A0123 Permit No. 06630 Operates 7 hrs/day & 240 days/year Batch	Source Test Team: B. Kino/M. Hernandez M. Wiley/J. Aaseth  Permit Services/Enforcement Division: D. Singh  Test Requested by: B. Bartley, (CDS) S. Applin, (C&E)
Permit Condition: ID # 16017		

Operating Parameters: Test Run A was conducted on 4/15/14, and test Runs B & C were conducted on 4/16/14. The plant was producing an average of 130 tons/hr of asphalt for both test days. The rotary dryer is natural gas fired with an average gas usage of 25.74 MMBtu/hr (4/15/14) and 40.17 MMBtu/hr (4/16/14.)

Applicable Regulations: 2-1-307	VN Recommended: <b>NO</b>
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Source Test Results and Comments:

METHOD	PARAMETER	RUN A	RUN B	RUN C	AVERAGE	LIMIT
ST-17	Volume Flow Rate, SDCFM	28,000	27,400	26,000	27,100	
	Stack Temperature, °F	190	193	194	192	
ST-23	Water Content, volume %	19.5	19.9	20.6	20.0	
ST-14	Oxygen, dry volume %	16.4	16.0	15.9	16.1	
ST-5	Carbon Dioxide, dry volume %	2.3	2.5	2.6	2.4	
	Carbon Dioxide, lbs/hr	4,340	4,651	4,582	4,524	
ST-6	Carbon Monoxide, dry ppmv	60	55	44	53	
	Carbon Monoxide, Corrected to 15 % O <sub>2</sub> , dry ppmv	89	70	55	71	230
	Carbon Monoxide, lbs/hr	7.3	6.5	5.0	6.3	
ST-7	(TOC) Total Organic Carbon (includes methane), ppmv as C <sub>1</sub>	10	11	13	11	300
	TOC, lbs/hr as Carbon	0.5	0.6	0.6	0.6	
	Methane, ppmv	10	11	13	11	
	(NMOC) Non-methane Organic Carbon, ppmv as C <sub>1</sub>	< 3.0	< 3.0	< 3.0	< 3.0	
	NMOC, lbs/hr	< 0.2	< 0.2	< 0.1	< 0.2	
	NMOC, lbs/ton of asphalt	< 0.001	< 0.001	< 0.001	< 0.001	0.03
ST-13A	Nitrogen Oxides, dry ppmv	22	22	24	23	
	Nitrogen Oxides, Corrected to 15 % O <sub>2</sub> , dry ppmv	30	28	28	29	30
	Nitrogen Oxides, lbs/hr	4.4	4.4	4.4	4.4	
ST-19A	Sulfur Dioxide, dry ppmv	31	< 10	15	< 16	
	Sulfur Dioxide, lbs/hr	8.8	< 2.7	3.9	< 5.1	
	Sulfur Dioxide, lbs/ton of asphalt produced	0.068	< 0.021	0.030	< 0.040	0.094
EPA-5	Front Half (FH) Particulate, gr/SDCF	< 0.002	< 0.002	< 0.002	< 0.002	0.01
	FH Particulate, lb/hr	< 0.60	< 0.60	< 0.60	< 0.60	40.0
	Back Half (BH) Particulate, gr/SDCF*	0.013	0.005	0.012	0.010	
	BH Particulate, lbs/hr*	3.2	1.1	2.7	2.3	
	Isokinetic Ratio, act/theo	103%	104%	101%		

Note: A "<" indicates values that are less than the method detection limit.  
 \* Back half particulate refers to particulate that condenses in the impingers, or back half of the sample train. Back half particulate quantified by use of wet impingement methodology.

NO COMMERCIAL USE OF THESE RESULTS IS AUTHORIZED

Air Quality Engineer <i>B. Kino</i> 6/10/14 <b>B. Kino</b>	Supervising Air Quality Engineer <i>C. McClure II</i> 6/10/14 <b>C. McClure II</b>	Approved by Air Quality Engineering Manager <i>Robert Bartley</i> 4/10/14 <b>B. Bartley</b>
--	--	---

Culminating months of process analysis and discussions between Berkeley City Staff, Councilmember Linda Maio, and Lehigh Hanson (Berkeley Asphalt), the company has agreed to process additional improvements that will further reduce emissions and odors at the company's Berkeley asphalt plant.

The Company has agreed to install new equipment, upgrade their process, and engage in staff training, all of which will significantly change their asphalt.

"It should provide improve the situation for nearby residents, be better environmentally, and better for the actual construction workers who are laying down the asphalt," said Councilmember Maio.

"We appreciate Councilmember Maio's diplomacy and tenacity. This solution is a win-win for all involved," said Mike Roth, Vice President for Lehigh Hanson – Region West.

The new equipment and training will result in an enhanced production process known as "Warm Mix Asphalt," an emerging technology that has been increasingly endorsed by federal and state officials. Typical asphalt is prepared at temperatures reaching 330 degrees Fahrenheit. The new process will use temperatures of 260 to 280 degrees Fahrenheit.

"We believe that the new technology (WMA) will meet or exceed 30-50% reduction in odor emissions. We think we can convert half of our customers to WMA immediately. It will take some time to educate and convert the remaining customers from conventional hot mix asphalt (HMA) to WMA. For our part, we will immediately begin educating our customers to accelerate that acceptance. We are confident that we can achieve the same success that others have with WMA," Roth said.

The new technology should reduce emissions and odors significantly and result in a more environmentally sustainable operation. The company has committed to installing all of the equipment and completing all of its employee training by the end of the year.

"With this state-of-the-art approach to production, other companies have reduced their emissions and odors by as much as 50 percent," said Roth. "We hope to experience similar success."

This agreement is the latest result of pressure from Councilmember Maio on the City and the company to address odors. Residents experiencing odors have been contacting Maio's office and documenting problems. This led to numerous conversations between City staff and neighbors and Lehigh Hanson. City Staff has been diligent in meeting met with Lehigh Hanson on several occasions to discuss ways technological and operational improvements to address complaints about noise, odor and dust. This resulted in the company implementing a series of mitigations, including the following:



**Noise:**

- Installed silencer on exhaust stack: May 2013  
*(Reduces sound emitting from exhaust fan)*
- Installed Variable Frequency Drives on exhaust fan motors: September 2013  
*(Enables operator to turn fan down when not in production mode which reduces sound emitting from exhaust fan)*
- Vulcanized conveyor belts: September 2013  
*(Removed metal clips on conveyor belts to eliminate clicking sound)*
- Replaced sound blankets: October 2013  
*(Reduces sound emitting from various equipment on the plant)*

**Odor:**

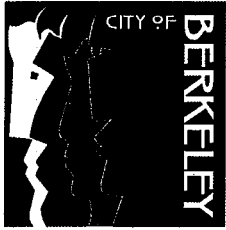
- Added deodorant to incoming oil loads: September 2012 to current  
*(Reduces odor in oil loads being delivered to plant)*
- Replaced four condensers on oil tanks: July 2013  
*(Reduces odor emitting for oil storage tanks)*
- Tuned burner: September 2013  
*(Improves efficiency of natural gas burner used to heat aggregate)*
- Installed four charcoal filters on oil tanks: September 2013  
*(Eliminates odor emitting from oil storage tanks)*
- Hired professional odor consultant: September 2013  
*(Working to improve best practices at the plant)*

**Dust:**

- Installed sprinkler on waste pile: July 2013  
*(Eliminates dust while loading trucks with asphalt waste)*
- Installed fence fabric: August 2013  
*(Reduces dust being blown onto the site from unpaved Second Street)*

This new, proposed enhancement to use state-of-the art equipment and manufacturing processes is a great improvement and demonstrates the City's and the Company's ability to work together to contribute to for a cleaner and more sustainable city.





RECEIVED AT  
COUNCIL MEETING OF:

JUL 14 2015

OFFICE OF THE CITY CLERK  
CITY OF BERKELEY

**Councilmember Maio, District 1**  
**Councilmember Droste, District 8**

## REVISED AGENDA MATERIAL

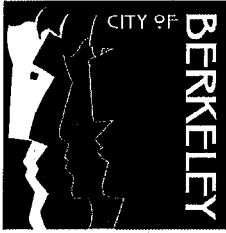
### AGENDA MATERIAL

**Meeting Date:** July 14, 2015  
**Item Number:** 69  
**Item Description:** Status Report: West Berkeley Industry  
**Submitted by:** Council Members Maio and Droste

Due to scheduling difficulties, City staff and Councilmembers met with several directors within the Bay Area Air Quality Management District (BAAQMD) on July 1st. Consequently, a final version of this status report could not be available by the regular agenda publishing deadline.

Office of Councilmember Linda Maio, Vice Mayor of the City of Berkeley, District 1  
510.981.7110 | [lmaio@cityofberkeley.info](mailto:lmaio@cityofberkeley.info) | [cityofberkeley.info/lindamaio](http://cityofberkeley.info/lindamaio)

Office of Councilmember Lori Droste, District 8  
510.981.7180 | [ldroste@cityofberkeley.info](mailto:ldroste@cityofberkeley.info) | [loridroste.com](http://loridroste.com)



CITY COUNCIL

**INFORMATION CALENDAR**

July 14, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Council Members Linda Maio and Lori Droste

SUBJECT: Status Report #2: West Berkeley Industry

**INTRODUCTION**

On January 20, 2015, the Berkeley City Council passed the following actions:

1. Council Members Linda Maio and Lori Droste to work with residents, businesses, and City Staff to review complaints and make good faith efforts to mitigate impacts in the areas where the City has authority such as noise and odors and to bring their findings back to City Council.
2. Direct the City Manager to enforce the terms of the Use Permit and the 1999 Settlement Agreement with the Oceanview Neighborhood Association.
3. If the City Manager and delegated staff or department finds the West Berkeley Lehigh Asphalt Company plant is not compliant with the Use Permit or the 1999 Settlement Agreement with the Oceanview Neighborhood Association, the City and its jurisdictional bodies or the appropriate authority implements corrective action and enforces the 1999 Settlement Agreement Use Permit immediately.

This report documents the information the Council Members found in their good faith efforts to address residents' concerns. In addition to the recommendations provided within this report, Councilmember Maio and Droste will continue to pursue action plans to improve air, noise, and odor emissions in West Berkeley.

Due to scheduling difficulties, City staff and Councilmembers met with several directors within the Bay Area Air Quality Management District (BAAQMD) on July 1st. Consequently, a final version of this status report could not be available by the regular agenda publishing deadline.

**CURRENT SITUATION AND ITS EFFECT**

- On January 20, 2015, the City Council tasked Council Members Maio and Droste to review complaints made regarding air quality in West Berkeley. Subsequently, Council Members Maio and Droste discussed concerns with residents.

- On May 12, 2015, City Council was provided a status update on residents' concerns, site visits and potential questions for a meeting with BAAQMD (Appendix A).
- On July 1, 2015, Council Members Maio and Droste, along with City staff, met with BAAQMD staff, including the Director of Compliance and Enforcement and Air Quality Manager.

## **FINDINGS**

BAAQMD is a nine-county agency jurisdiction that regulates air quality according to federal standards and oversees an air quality monitoring network throughout the Bay Area, including eight air monitor sites in Alameda County.<sup>1</sup> As the only regulator of emissions and air quality of the Bay Area, BAAQMD determines whether industries in West Berkeley are operating in accordance with local, state, and federal regulations.

### ***2009 West Berkeley Air Monitoring Report***

In response to the City's request, in 2009 BAAQMD placed a temporary monitor (for over one year) at the intersection of 6th St. near Gilman St. to measure ambient air quality in West Berkeley. BAAQMD monitored the site at irregular times of the day which were often unannounced. BAAQMD found that "West Berkeley air quality levels were well below all applicable State and National Ambient Air Quality Standards (NAAQS) for gaseous criteria pollutants."<sup>2</sup> According BAAQMD's findings, cancer risk associated with toxic air contaminants is likely associated with proximity to the freeway:

*The compounds that contribute most significantly to cancer risk in West Berkeley are diesel PM, benzene, 1,3-butadiene, and carbon tetrachloride. This is consistent with other monitoring sites. These pollutants are emitted primarily from mobile sources, with the exception of carbon tetrachloride. There are no known local sources of carbon tetrachloride due to the phase-out of this compound as a stratospheric ozone-depleting compound.<sup>3</sup>*

To better identify the impacts of traffic-related air pollution, in 2014, BAAQMD opened two permanent air monitoring stations along Bay Area freeways. They are in the process of installing a third air monitoring station in West Berkeley to better analyze the health effects of traffic related air pollution along the I-80 corridor.

### ***Technology***

BAAQMD indicated that they have recently approved several technologies to address air quality concerns at Hanson Aggregates Berkeley Asphalt. In January of 2015, Hanson Aggregates Berkeley Asphalt introduced a new warm mix which lowers the temperature preparation by

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<sup>1</sup> *Bay Area Air Quality Management District*. (n.d.) District Air Monitor Sights. Retrieved from [http://hank.baaqmd.gov/tec/maps/dam\\_sites.htm](http://hank.baaqmd.gov/tec/maps/dam_sites.htm)

<sup>2</sup> *Bay Area Air Quality Management District*. (April 14, 2009). Summary and Analysis of West Berkeley Air Monitoring Results. Retrieved from [http://www.ci.berkeley.ca.us/uploadedFiles/Council\\_1/Level\\_3\\_General/summary\\_analysis\\_west\\_berkeley\\_air\\_monitoring.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Council_1/Level_3_General/summary_analysis_west_berkeley_air_monitoring.pdf), p.1.

<sup>3</sup> *Ibid.*, p. 3.

approximately 50-70 degrees Fahrenheit.<sup>4</sup> The new warm mix is expected to significantly reduce emissions. In addition, Pacific Steel and Casting (PSC) is assessing new materials for molds that receive hot pourings that will result in a reduction in odor emissions. For more information on technology updates, refer to Councilmembers Maio and Droste's previous report.<sup>5</sup>

### ***Monitoring***

During our conversations with BAAQMD, they indicated that they oversaw a source test in March 2015 which led them to conclude that Hanson Aggregates Berkeley Asphalt was in compliance with its requirements and regulations. BAAQMD also performs 24 hour source tests as well as night tests throughout the region. City Councilmembers Maio and Droste have requested information regarding these findings, which will be examined at a later date.

In addition to new technologies, BAAQMD requires a specific type of air quality stack testing, which has been in place at Pacific Steel Casting. This usually consists of sampling emissions from a single location. Industry is required to provide the stack monitoring data to BAAQMD. Once BAAQMD receives the data, it is reviewed to ensure that the data is accurate and free from manipulation. Councilmembers Maio and Droste have requested information regarding specific stack monitoring.

BAAQMD also incorporates spot checks into their monitoring procedures. Spot checks consist of measuring compounds with additional instrumentation in order to ensure that the industries' instrumentation is accurate. Additionally, spot checks measure emissions to determine what compounds are emitting from facilities. City Councilmembers have requested information regarding specific spot test results.

### ***Complaint Investigation***

BAAQMD has a complaint line in operation 24/7 with translation services. During normal office hours, staff handles the complaints. If the complaint is generated during off-hours, an answering service processes the complaint. Although inspection staff is in the field during normal working hours, if a rash of complaints come in at night staff is contacted and makes a determination how to respond. BAAQMD expressed that they attempt to respond to all complaints within an hour and dispatch within 30 minutes (during normal working hours). Confirmation of an odor must consist of 1) the inspector and complainant simultaneously smelling the odor and 2) the inspector tracing the odor directly back to the source. BAAQMD emphasized that it still follows up with every complaint regardless of whether or not it is confirmed. The agency is working to improve their complaint process.

BAAQMD also has the power to issue public nuisance violations. If BAAQMD has approximately five "face-to-face" confirmations within 24 hours and can trace the odor back to a source, the

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<sup>4</sup> Maio, L. & Droste, L. (May 26, 2014). Status Report: Berkeley Asphalt; Pacific Steel Casting; Air Quality Inquiries. Retrieved from [http://www.ci.berkeley.ca.us/Clerk/City\\_Council/2015/05\\_May/Documents/2015-05-26\\_Item\\_38\\_Status\\_Report\\_Berkeley\\_Aspphalt.aspx](http://www.ci.berkeley.ca.us/Clerk/City_Council/2015/05_May/Documents/2015-05-26_Item_38_Status_Report_Berkeley_Aspphalt.aspx), p. 94.

<sup>5</sup> Ibid., p. 92-93.

facility may be deemed a public nuisance. Complaints must be self-generated instead of solicited by something such as an email tree to insure validity in a court proceeding.

According to BAAQMD, these particular steps are necessary in order to have court standing and be legally defensible in a court of law. When it issues the nuisance, the agency identifies the issue and serves as a mediator in order to fix the problematic source of the violation. If information is unavailable regarding a particular violation, it is because BAAQMD is still remedying the issue with the violator.

### ***Inspector Training***

Residents state that the current odor process is unscientific because inspectors rely on their sense of smell to validate complaints. Council Members Maio and Droste reviewed inspector training with BAAQMD to address these concerns.

In order to qualify as an inspector, an individual must meet the criteria for employment and have an "average nose." Potential inspectors participate in a panel in order to determine whether their nose is not overly or under sensitive. Inspectors may be subjected to hazardous compounds during trainings. Although the process appears to be unscientific and antiquated, BAAQMD utilizes these steps to have court standing and legal defense.

Council Members Maio and Droste find the complaint and detection system to be in need of improvement and WILL strongly encourage BAAQMD to implement alternative devices to detect odors. While the district has purchased equipment to measure a wide variety of compounds in odor emissions, it is still trying to develop expertise in odor detection. Nevertheless, it is essential that BAAQMD develop capabilities and implement objective odor detection devices.

In order to reduce odorous and non-odorous emissions, Council Members Maio and Droste have confirmed that BAAQMD is pursuing the following to address monitoring technologies, regulations, reporting protocol, and inspector training:

1. BAAQMD is placing an additional air monitor in West Berkeley.
2. BAAQMD is reviewing and updating Regulation 7 "Odorous Substances" that specifically focuses on odors.<sup>6</sup>
3. BAAQMD is reevaluating its reporting protocol and will make significant efforts to outreach to stakeholders prior to this process. *Note: BAAQMD expressed willingness to workshop a new process with concerned stakeholders in 2016.*

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<sup>6</sup> Bay Area Air Quality Management District. (1982). "Regulation 7: Odorous Substances." Retrieved from <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/Rules%20and%20Regs/reg%2007/rg0700.ashx?la=en>

4. BAAQMD wishes to acquire objective odor detection devices and to incorporate these devices as the primary determinate of odor detection.
5. BAAQMD has been asked to make regular status reports on the implementation status of PSC's odor control plan.
6. BAAQMD is incorporating new technologies that will assist in reducing emissions.
7. BAAQMD is investigating shrouding operations with Berkeley Asphalt, in particular, to reduce noise and odors.
8. BAAQMD agreed to improve its oversight and detection of Berkeley Forge's emissions.

In order to address concerns with the city's regulatory mechanisms, Council Members Maio and Droste will obtain and assess BAAQMD's response to the Tetra Tech (2008) finding regarding the PSC Health Risk Assessment and how the Community Environmental Advisory Commission's (2007) air quality recommendations re acted upon. City staff has been asked in the previous item to provide information regarding enforcement procedures and assessed penalties in West Berkeley from 2000-2015. Results will be provided in the third status report.

#### **Businesses Practices in West Berkeley**

Residents claim that the larger industries in West Berkeley may not be following protocols for good business in order to reduce emissions. Namely, they seem to be concerned with weekend and after-hour operations. Residents also voiced displeasure over the lack of truck tarping at Hanson Aggregates Berkeley Asphalt as required in the 1999 Settlement Agreement.

In order to address concerns with the city's regulatory mechanisms, Council Members Maio and Droste will further follow up on:

1. City staff providing a report in response to City Council's January 20, 2015, second and third directives regarding use permit compliance using the information gathered in interviews and in this informational report.
2. Hanson Aggregates Berkeley Asphalt requiring trucks to tarp their loads.
3. Hanson Aggregates Berkeley Asphalt installing new shrouds to mitigate emissions caused when the hot asphalt hits cold truck beds.

#### **Information Access**

Finally, some neighbors were alarmed that they were not aware of emissions when purchasing or renting their homes. Overall, these residents had a lack of understanding when the plants are most active.



In order to address challenges regarding information access, Council Members Maio and Droste will pursue the following:

1. West Berkeley Asphalt and Pacific Steel Casting Company holding a meeting with concerned citizens to begin a constructive dialogue and share information regarding evolving technologies and their operations as they relate to public health.
2. West Berkeley industries posting and providing information alerts to the City of Berkeley regarding production schedules, particularly when plants are most active. This information should be on their website and communicated, via link, to concerned residents.

A third status report will be provided that will provide additional information, as relevant, and recommendations will be proposed. Although the proposed next steps go well beyond the 1999 settlement agreement, the third report will also provide an assessment of compliance with that agreement.

**CONTACT**

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Community Health Commission

ACTION CALENDAR

January 20, 2015

*(Continued from December 16, 2014)*

To: Honorable Mayor and Members of the City Council

From: Community Health Commission

Submitted by: Linda Franklin, Chairperson, Community Health Commission

Subject: West Berkeley Industrial Plants Air Quality

RECOMMENDATION

Take the following actions regarding air quality complaints in West Berkeley:

1. The City Council hold a Public Hearing regarding air quality complaints on the West Berkeley Lehigh Hanson Asphalt Company plant, Bayline Concrete Cutting Company and Pacific Steel Casting Company; and that the City provide relevant health information.
2. Direct the City Manager to complete the compliance check list based on the 1999 Settlement Agreement with the Oceanview Neighborhood Association; and
3. If the City Manager and delegated staff or department finds the West Berkeley Lehigh Asphalt Company plant is not compliant with the compliance check list based on the 1999 Settlement Agreement with the Oceanview Neighborhood Association, the City and its jurisdictional bodies or the appropriate authority implements corrective action and enforces the 1999 Settlement Agreement compliance checklist immediately.

FISCAL IMPACTS OF RECOMMENDATION

Potential Costs to the City of Berkeley include but are not limited to: the staff costs of preparing for and attending a public hearing at a City Council meeting and providing relevant health information; the cost to assess compliance of the West Berkeley Lehigh Asphalt Company plant with the 1999 Settlement Agreement with the Oceanview Neighborhood Association; City staff time for implementing and enforcing potential corrective actions.

Potential costs to the West Berkeley Lehigh Hanson Asphalt Company plant include but are not limited to purchasing of requisite equipment and/or reforming practices in order to be compliant with the 1999 Settlement Agreement.

CURRENT SITUATION AND ITS EFFECTS

According to a September 4, 2014 memo submitted to the Housing Advisory Commission, 93 residents, workers, and business owners signed and submitted a

California Public Records Act in June 2014, to get City records on whether the City of Berkeley complied with a 1999 settlement agreement between the Oceanview Neighborhood Association, Communities for a Better Environment, BAC, BARM, and the City of Berkeley. The 1999 settlement agreement was designed to create stricter regulation on the plant's day-to-day operations. Since the 1999 settlement agreement, BAC was sold to Lehigh Hanson Cement. Residents, workers, and business owners believe that strict adherence to the terms of the settlement has not yet been met. Residents, such as the two residents and members of the Oceanview Neighborhood Association who provided public comment on this matter at the CHC meeting on September 11, 2014, have indicated that the fumes have gotten worse over the last five years, the plant operates at unauthorized hours, and that compliance with several terms of the settlement has not been fully realized.

Due to the potentially significant health effects of these fumes and pollutants, which constitute health ramifications exacerbated by possible noncompliance, the citizens of West Berkeley and the Health Commission are asking the City Council and the City Manager to take meaningful actions to ensure that the air around these plants in West Berkeley where many people live or encounter is safe and does not pose a health risk.

### BACKGROUND

According to a memo submitted to the Housing Advisory Commission on September 4, 2014, in a one-year period, between 2012 and 2013, West Berkeley Alliance for Clean Air and Safe Jobs, and California Environmental Justice Coalition; and homeowners and residents made 111 complaints to the Bay Area Air Quality Management District (BAAQMD).

Lehigh Hanson Cement is by owned by an international conglomerate company Heidelberg Cement. Heidelberg Cement is the global market leader in aggregates and a prominent player in the fields of cement, concrete and other downstream activities, making it one of the world's largest manufacturers of building materials. The company employs some 52,600 people at 2,500 locations in more than 40 countries. In addition to the referral to the HAC, a request was made to the CHC to consider the recommendations due to Health concerns over air quality. Therefore, this topic was framed as a health concern and discussed at the regularly scheduled Community Health Commission meeting on September 11, 2014 where the following motion was approved.

M/S/C (Nathan/Kwanele) Motion to Recommend to City Council that:

1. The City Council hold a Public Hearing regarding air quality complaints on the West Berkeley Lehigh Hanson Asphalt Company plant, Bayline Concrete Cutting Company and Pacific Steel Casting Company; and that the City provide relevant health information.
2. Direct the City Manager to complete the compliance check list based on the 1999 Settlement Agreement with the Oceanview Neighborhood Association; and
3. If the City Manager and delegated staff or department finds the West Berkeley

Lehigh Asphalt Company plant is not compliant with the compliance check list based on the 1999 Settlement Agreement with the Oceanview Neighborhood Association, the City and its jurisdictional bodies or the appropriate authority implements corrective action and enforces the 1999 Settlement Agreement compliance checklist immediately.

**Ayes:** Commissioners Franklin, Kwanele, Lee, Nathan, Neuhauser, Rosales, Shaw, Stein, M. Wong  
**Noes:** None  
**Abstain:** None  
**Absent from vote:** Commissioners Collins, Delgadilo, Namkung, Tempelis  
**Excused:** Commissioners Barry, Speich, A. Wong

### ENVIRONMENTAL SUSTAINABILITY

This recommendation can potentially support the cause of environmental sustainability if the possibly noncompliant Lehigh Hanson Asphalt Company plant adopts any needed reformative practices as a result of the enforcement of the 1999 Settlement Agreement, which could lead to more efficient resource consumption and reduced environmental degradation caused by extracting less resources. Moreover, as emissions of greenhouse gases and other potentially environmentally harmful compounds could decrease if any possibly needed improved practices are employed, the environment could greatly benefit from the potential results of implementing the recommended acts.

### RATIONALE FOR RECOMMENDATION

This is a health issue because many of the Oceanview residents and homeowners are unable to enjoy clean air that may have harmful or discomforting smoke and pollutants, as directly described to the CHC by two residents of the Oceanview community who provided public comment during the September 11, 2014 CHC meeting. There is a clear nexus between air quality and health as poor air quality relates to asthma incidence rates and hospitalizations. According to the 2013 City of Berkeley Health Status Report, "asthma hospitalizations of children under five years of age are most common in West Berkeley," which demonstrates the importance of evaluating environmental factors that may be contributing to a disproportionately higher rate of youth asthma hospitalizations in West Berkeley (Health Status Report found at [http://www.ci.berkeley.ca.us/uploadedFiles/Health\\_Human\\_Services/Level\\_3\\_-\\_Public\\_Health/BerkeleyHealthReport\\_online\\_FINALv2.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Health_Human_Services/Level_3_-_Public_Health/BerkeleyHealthReport_online_FINALv2.pdf)).

In addition to health statistics justifying a closer look at possible causes of asthma, the City Manager's most recent report to the City Council on the Breathmobile scheduled on the September 16, 2014 Information Calendar states: "The new "Health Happens in Berkeley" initiative has identified asthma hospitalizations in children (up to 15 years of age) as one of four preliminary Public Health priorities. The Public Health Division is committed to addressing the asthma health inequities seen in Berkeley's Health Status Report 2013." Therefore, in order to cooperate with this health initiative and take potentially substantial action toward realizing the objective of "addressing the asthma health inequities seen in Berkeley's Health Status Report 2013," this recommendation

encouraging the City Manager and City Council to act on this issue was approved. Moreover, as the Occupational Health and Safety Administration states that potential health effects of exposure asphalt pollutants and fumes include: headache, skin rash, sensitization, fatigue, reduced appetite, throat and eye irritation, cough, and skin cancer, it is imperative the City act to mitigate the potential for these health effects to manifest in the citizens of West Berkeley (<https://www.osha.gov/SLTC/asphaltfumes/>). The City Council and City Manager should be responsive to the needs of their residents. Thus, the Community Health Commission calls on the City Council to hold a public hearing on air quality complaints, and requests the City Manager to complete the checklist based on the 1999 settlement agreement and take immediate corrective action.

### ALTERNATIVE ACTIONS CONSIDERED

The Community Health Commission chose its recommendation as being the most efficient and effective, but recognizes that alternative or additional actions may be considered by the City Council. Toward that end, the Commission discussed the following during its deliberations:

1. Gather more information before making a recommendation to the City Council by forming a subcommittee to explore the issue.
2. Let the process take its course without support, as citizens have already filed complaints with the Bay Area Air Quality Management District.
3. Instead of having a Public Hearing, solely recommend that the City Manager and appropriate city staff evaluate the compliance of the West Berkeley Lehigh Hanson Asphalt plant with the 1999 Settlement Agreement between the owners of the plant and the Oceanview Neighborhood Association.

Alternative action #1 was not taken as waiting to gather more information before making a recommendation to the City Council would delay any meaningful action such as assessing compliance and having a public hearing for the people of West Berkeley to voice their concerns while the residents of West Berkeley continue to suffer from polluted air. This delay proved too costly, as it is believed that immediate action is required in order work toward providing answers and relief to those in West Berkeley.

Alternative action #2 was not taken since the fact that 111 complaints have been filed with Bay Area Air Quality Management District (BAAQMD) in a one-year period without any consequential significant review of the air quality situation proves that the complaint process with BAAQMD is insufficient to address this issue requiring more efficient action. Alternative action #3 was not taken because it is believed that it is vital to our political system that the people have the opportunity to voice their concerns, and because a public hearing would be productive in establishing a public record and source of evidence from the anecdotal experiences of the residents of West Berkeley.

### CITY MANAGER

See City Manager companion report.

### CONTACT PERSON

West Berkeley Industrial Plants Air Quality

ACTION CALENDAR  
January 20, 2015

Gail Feldman, Commission Secretary, HHCS, (510) 981-5232







BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

Lehigh Hanson Berkeley Asphalt  
Site #A0123  
699 Virginia Street  
Berkeley, CA 94710

## West Berkeley Odors Fact Sheet December 9, 2020

### Background

- Berkeley Asphalt is an industrial facility located in Berkeley, CA. The facility began operations in 1955 and was acquired by Lehigh Hanson in 2005.
- Berkeley Asphalt has a Permit to Operate, issued by the Air District, which limits total asphalt production to 3,000 tons per day and 250,000 tons per consecutive 12 months. Berkeley Asphalt is in compliance with these limits.
- There are thirteen (13) Air District permitted sources at the facility that include the asphalt batch plant, asphalt oil tanks, conveyers and stockpiles.
- Dust abatement devices include conveyor water sprays, particulate baghouse and cyclone, and a street sweeper.
- Starting October 29, 2020, the Air District began receiving many complaints from West Berkeley residents alleging “sulfur”, “sewage” and “burning” odors from unknown source(s). Staff have received approximately 193 similar Berkeley odor complaints through December 8, 2020. The alleged odor has been fleeting and difficult for staff to confirm even when response times often only takes minutes.

### Air District investigation

- In the past, the Air District has received many ‘sulfur’ odor complaints related to naturally occurring Bay waterfront decomposition throughout the Bay Area, especially at times like this, after a long, hot and dry summer. Thus, Air District Inspectors initially conducted multiple investigations around Aquatic Park and the Berkeley waterfront, but did not observe these locations as the cause of the alleged sulfur odors. Berkeley Council Member Rashi Kesarwani’s December 6, 2020 newsletter confirmed the same observation: “City of Berkeley facilities, such as Aquatic Park and the Transfer Station, have been ruled out by City staff.”
- During the first week of November 2020, Air District staff contacted PG&E to inquire if any gas-line work was being conducted in the area of complaints. PG&E’s response was that there wasn’t any such work being done in the area.
- The Air District also received multiple complaints alleging a “sewage” odor in the same area. It appears there have been two odors occurring in the West Berkeley

area during the past month: a sewage odor and the “burning, sulfur” industrial odor. In early November 2020, Air District staff contacted the East Bay Municipal Utility District (EBMUD), which operates the main sewer intersect line from Berkeley to the EBMUD Sewage Treatment Plant (STP) at the I-580/I-80 interchange. EBMUD stated they had also received odor complaints, so its personnel conducted a patrol along the entire route between North Berkeley and the STP and did not observe any unusually strong odors or evidence of any leaks. EBMUD said the City of Berkeley (City) Public Works Department has jurisdiction over the sewage lines within the city of Berkeley. Air District staff contacted the City Public Works Department, which confirmed they weren’t conducting any projects in the vicinity of West Berkeley where the sewage odors were reported. The City Public Works Department concluded that it was King Tide season and they have observed that water table pressure can force sewer gases to the surface and cause above-ground odors, but they can’t control that natural process.

- On November 6, 2020, an Air District Inspector investigated at Berkeley Asphalt but did not observe the alleged odor on site. The Berkeley Asphalt plant manager confirmed the sulfur odor with the Inspector off-site of the facility, up the street, but could not determine where the odor could be originating from within Berkeley Asphalt. The Inspector then suspected the “burning sulfur” odor was being caused by Berkeley Asphalt, but the nature of its operation is intermittent asphalt batches based on demand and momentary truck loading made actively tracing the odor to the facility after meeting with complainants difficult. However, multiple complaints were confirmed by the Inspector on December 3, 2020 and it was the same odor observed on November 6, 2020. Air District staff now suspect the odors rise aloft and settle blocks away in the community downwind from the facility.

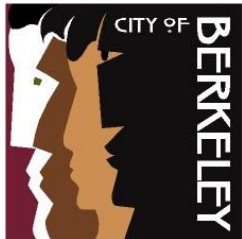
#### Air District response

- The Air District issued a Notice of Violation (NOV) to Berkeley Asphalt on December 8, 2020. The NOV involved a one-day violation for off-site odors which caused multiple confirmed complaints and a public nuisance on December 3, 2020. The NOV is expected to prompt Berkeley Asphalt to evaluate the root cause of the odor and take corrective action(s) necessary to remedy and alleviate the ongoing odor problem.
- To address asphalt smoke odors at Berkeley Asphalt, the facility had submitted a permit application to the Air District. On November 30, 2020, the Air District issued an Authority to Construct to install a new blue smoke abatement system that will be in place by the end of the first quarter 2021. Blue smoke abatement systems capture and abate asphalt plant loading emissions and the Air District is working with the facility to understand how these controls may reduce odors.

- Air District staff will continue to actively investigate the situation and monitor the facility for visible emissions and odors.

What to do if you smell odor

- Call the Air District complaint line 1-800-334-ODOR (6367) or file a complaint online at [www.baaqmd.gov/complaints](http://www.baaqmd.gov/complaints) if you smell an odor. This helps to establish a record of where and when odors are detected, and to trace the cause of the odors. The Air District strives to respond to air quality complaints as soon as possible, typically within thirty minutes during business hours.
- The Air District is not an emergency response (first responder) agency. In case of emergencies, please contact 911, and, for health-related symptoms, your primary care doctor or local health department.



Planning Department

April 2, 2021

Igor Tregub, Chair  
Sierra Club Northern Alameda County Group  
[Delivered via e-mail to itregub@gmail.com]

Dear Mr. Tregub,

Thank you for your March 8, 2021 letter to the Berkeley City Council regarding Lehigh Hanson/Berkeley Asphalt (BA) in Berkeley. I understand that the concerns regarding emissions from the facility represent a longstanding issue for neighbors and community members. The City of Berkeley is committed to using its regulatory authority to ensure compliance with the 1999 Settlement Agreement and Use Permit conditions, to the fullest extent possible.

Here is a summary of the enforcement activities that the City has recently undertaken regarding BA:

- On December 21, 2020, January 14, 2021, and March 19, 2021, City of Berkeley staff from four divisions in three departments conducted comprehensive site inspections to evaluate BA's compliance with the conditions of approval of their 1999 Use Permit. During the December and January inspections, City staff observed that the truck loading area was only partially enclosed, and vacuum sweeping was occurring on a portion of the yard rather than all of it.
- The City issued a notice of violation (NOV) on January 11, 2021, citing an insufficient enclosure of the asphalt truck loading area in violation of the revised condition of approval 8.1 of Use Permit #98-7000018/Modification of Use Permit #3033 pursuant to BMC Chapter 23B.32. The NOV required BA to resubmit by February 1, 2021 application materials for building permit B2020-04108 for construction of an enhanced enclosure and smoke capture system for the asphalt truck loading area. BA did not meet this deadline, so the City issued a Citation warning on February 10, 2021, giving them 15 days to resubmit information for their building permit application. The City added a second violation, related to sweeping, to the citation warning based on observations from the second site visit.

- On February 16, 2021, BA resubmitted plans for their building permit B2020-04108, which was subsequently approved on March 1, 2021. The plans to enclose the asphalt truck loading area addressed the first violation.
- On March 1, 2021, BA responded to the second violation with a letter documenting how they currently vacuum the yard and proposing updates to their sweeping regimen. The City has posed follow-up questions to BA regarding their proposed sweeping regimen to determine whether it satisfies the obligations established through the facility's Use Permit conditions, and whether it appropriately mitigates any potential impacts of dust and dirt on the surrounding neighborhood.
- On March 3, 2021, the City issued BA a citation warning establishing a deadline of April 15, 2021 for BA to complete construction and inspections associated with building permit B2020-04108. If BA does not meet this deadline, they will be cited and fined daily until they are in compliance, with initial fines set at \$250 per day and escalating subsequently.
- BA has made substantial progress towards the construction of the enhanced enclosure and smoke capture system. In late March, the City of Berkeley determined that a portion of the construction activities occurred prior to formal authorization; although staff had reviewed and approved the plans for that work, the City had not yet received payment for the permit and it had not yet been issued. The City is continuing its investigation of this issue and, if appropriate, will cite and fine BA for this violation.

The Bay Area Air Quality Management District (BAAQMD) has regulatory authority over emissions and odors at the Berkeley Asphalt facility, while the City regulates the 1999 Settlement Agreement and Use Permit conditions. The City has been coordinating with BAAQMD in response to the concerns raised by community members. BAAQMD issued four NOV's to BA related to odors on 12/3/20, 12/21/20, 2/3/2021 and 2/5/2021. BAAQMD informed the City on March 24 that the last confirmed odor complaint from the Berkeley Asphalt plant occurred on February 12, 2021. In the same communication, BAAQMD staff indicated that they expect that the enclosure and smoke capture system enhancements that are currently under construction will reduce the odors impacting neighbors and decrease particulate matter.

The City of Berkeley will continue to conduct regular inspections of the Berkeley Asphalt facility; the next inspection is scheduled to occur today. The City will continue to take enforcement action as needed if the facility is found to be out of compliance with any applicable conditions and regulations.

Please feel free to contact me if you have any additional questions regarding this matter.

Igor Tregub, Chair  
Sierra Club Northern Alameda County Group

Page 3  
April 2, 2021

Sincerely,

A handwritten signature in black ink, appearing to read 'JKlein', written in a cursive style.

Jordan Klein  
Interim Director, Planning & Development Department

Cc: Dee Williams-Ridley, City Manager  
Paul Buddenhagen, Deputy City Manager  
Berkeley City Council