Brian K. Lusher **District Engineering Division** BAAQMD 939 Ellis Street San Francisco, CA 94109 Telephone: 1-415-749-4623

Fax: 1-415-749-5030

E-mail: blusher@baaqmd.gov

My (Our) name is JOAQUIN BRNDVIDES

(Name)

I (We) Live at 1467 FRY LANZ

(Address)

(Address)

(City, State, Zip)

Dear Mr. Lusher and Bay Area Air Quality Management District,

I (We) Are writing to you in reference to the Eastshore Energy Center, Permit # 15195.

I (We) are opposed to the Eastshore Energy Center being located in Hayward and disagree with the Bay Area Air Quality Management District granting a Preliminary Determination of Compliance, (PDOC), to Eastshore. We ask that you DENY any further approval to the Eastshore Energy Center for several reasons.

The Eastshore Energy Center would be located in a non-attainment area, meaning Hayward has already been determined to be an area with high levels of certain air pollutants by federal and state standards and should not be adding further sources of these pollutants.

The BAAQMD should actively consider the health and safety of the many residents of Hayward with as much gravity as the BAAQMD considers the fairness to, and best interest of, the applicant.

Hayward is being turned into a dumping ground for air pollutants under the BAAQMD's watch. Toxic Air Contaminants created by the Eastshore Energy Center would include: 1,3-Butadiene, Acetaldehyde, Acrolein Ammonia, Benzene, Benzo-a-anthracene, Benzo-a-pyrene, Benzo-b-fluoranthene, Benzo-k-fluoranthene, Chrysene, Dibenz-ah-anthracene, Ethylbenzene, Formaldehyde, Indeno-123cdpyrene, Naphthalene, Propylene, Toluene, Xylenes, Diesel Exhaust Particulate (This list of contaminants was taken from: BAAQMD Preliminary Determination of Compliance/ Table 4: Maximum Facility Toxic Air Contaminant (TAC) Emissions, Application Nunber 15095, Eastshore Energy Center, April 30, 2007)

Toxic Air Contaminants created by the Russell City Energy Center would include: Acetaldehyde b, Acrolein, Ammonia c, Benzene b, 1,3-Butadiene, Ethylbenzene, Formaldehyde b, Hexane, Naphthalene, PAH sb, Propylene, Propylene Oxide b, Toluene, Xylenes a-pursuant to BAAQMD Toxic Risk Management Policy b-carcinogenic compound, c-based upon the worst-case ammonia slip of 5 ppmvd @ 15% O2 from the A-1 and A-2 SCR systems with ammonia injection. (This Lists of Contaminants was taken from BAAQMD, Preliminary Determination of Compliance/Table 2: Maximum Facility Toxic Air Contaminant (TAC) Emissions, Russell City Energy Center, November 15, 2001)

I (We) feel that the amounts of these of pollutants are unacceptable to be released into Hayward's air near to residences and schools.

Therefore on the basis of Environmental Justice, and in the interest of the citizens of Hayward, I (we) DO NOT ACCEPT the Bay Area Air Quality Management District's PDOC and demand that the Bay Area Air Quality Management District DENY the Eastshore Energy Center further approval.

Additionally on the basis of Environmental Justice and fairness, and in the interest of the health and safety of the residents of Hayward, I (we) also request that Hayward be granted <u>adequate</u>, <u>continuous real-time air quality monitoring stations located on the Hayward flatlands without delay</u>. (One suitable location for these stations could possibly be located at the <u>Chabot College Campus</u>.)

In Conclusion, I (we) do not accept the Preliminary Determination of Compliance, (PDOC), and it's air quality data as accurate or valid. I (we) oppose it's finding and demand that the Bay Area Air Quality Management District DENY the Eastshore Energy Center FURTHER APPROVAL.

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Additional Con	nments:						
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(Please mail before June 1st, 2007)

Sincerely,

# **Grandview Realty**

From:

Brian Lusher [blusher@baaqmd.gov] Thursday, February 07, 2008 10:19 AM

ent: To:

Grandview Realty

Subject:

RE: Response to Comments, Info on PSD and Title V Major Source Thresholds

Rob,

The FDOC was sent to the CEC, ARB, EPA and adjacent air districts on 10/17/07. Response to comments letters were sent on 10/17/07 to the ARB, CEC and one resident of Hayward. The general reponse to comment letters were sent out on 10/24/07.

The District received approximately 605 comments regarding the PDOC and the project.

Regards,

Brian K. Lusher Air Quality Engineer II Bay Area Air Quality Management District 415 749-4623

----Original Message-----

From: Grandview Realty [mailto:GrandviewRealty@comcast.net]

Sent: Thursday, February 07, 2008 1:54 AM

To: Brian Lusher

Subject: RE: Response to Comments, Info on PSD and Title V Major Source Thresholds

Brian, can you tell me how many comments you received and if the date on the response October 24, 2007 was the response date to all?

THANKS ROB

----Original Message----

From: Brian Lusher [mailto:blusher@baaqmd.gov]

Sent: Wednesday, January 23, 2008 2:40 PM

To: grandviewrealty@comcast.net

Subject: Response to Comments, Info on PSD and Title V Major Source Thresholds

Rob,

Here is the response to comments signed by Brian Bateman, Director of Engineering.

<<Response to Comments 102307 Commenters No Address.ZIP>>

Eastshore is not a "major source" under the PSD permit program or Title V of the Clean Air Act.

The 40 Ton/yr value for NOx, and the 15 Ton/yr value for PM10 define a major modification to a major source.

Major Source Thesholds for the Title V Permit Program may be found at 40CFR Part 70.2 (page 212).

The Bay Area is designated as "Marginal" for attainment status with the deral 8-hour Ozone standard.

Areas designated Maginal or Moderate have major source thesholds for Title V set at 100 Tons/year for Criteria pollutants (pollutants with ambient air quality standards).

Regards,

Brian K. Lusher Air Quality Engineer II Bay Area Air Quality Management District 415 749-4623

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.516 / Virus Database: 269.19.13/1246 - Release Date: 1/27/2008

6:39 PM

No virus found in this outgoing message.

Checked by AVG Free Edition.

Version: 7.5.516 / Virus Database: 269.19.20/1262 - Release Date: 2/6/2008

9:13 AM

No virus found in this incoming message.

Checked by AVG Free Edition.

Version: 7.5.516 / Virus Database: 269.19.21/1265 - Release Date: 2/7/2008 11:17 AM

Subject: Preliminary Determination of Compliance Eastshore Energy Center Application No. 15195

ALAMEDA COUNTY

Tom Bates Scott Haggerty Janet Lockhart Nate Miley

CONTRA COSTA COUNTY

John Gioia Mark Ross (Chair) Michael Shimansky Gayle B. Uilkema

MARIN COUNTY Harold C. Brown, Jr.

NAPA COUNTY Brad Wagenknecht

SAN FRANCISCO COUNTY

Chris Daly Jake McGoldrick Gavin Newsom

SAN MATEO COUNTY

Jerry Hill (Vice-Chair) Carol Klatt

SANTA CLARA COUNTY

Erin Garner Yoriko Kishimoto Liz Kniss Patrick Kwok

SOLANO COUNTY John F. Silva

SONOMA COUNTY
Tim Smith
Pamela Torliatt
(Secretary)

Jack P. Broadbent EXECUTIVE OFFICER/APCO

#### Dear Commenter:

The Bay Area Air Quality Management District (District) has received your comments regarding the District's Preliminary Determination of Compliance (PDOC) for the proposed project.

The District has considered your comments, along with other comments that were submitted, and has made a final determination that the proposed project meets the requirements of the District's Risk Management Rule (Reg. 2 Rule 5) and meets all other applicable District Regulations as well as applicable State and Federal regulatory requirements. The District will continue to participate in the California Energy Commission licensing process to ensure that the project will have no significant air quality impact to Hayward or the Region.

The public comments received on the Preliminary Determination of Compliance are addressed below.

#### Comment Category 1: Proposed Project located in a non-attainment area.

Commenters stated that the Region is not in attainment of the State and Federal Ambient Air Quality Standards and that it would not be appropriate to add new sources of air pollution.

#### **Response to Comment Category 1**

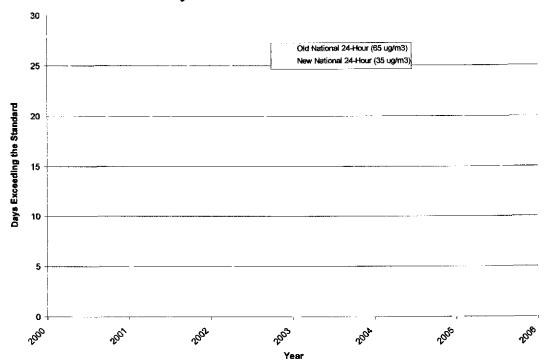
Currently, the Bay Area is designated as "attainment" for CO, NO2, SO2, and lead, which means that the air quality in the Bay Area meets federal and state standards for those pollutants. The Bay Area is designated as "non-attainment" for the state and federal ozone standards and for the state standards for fine particulate matter (PM10 and PM2.5). New, more stringent federal standards for fine particulate matter have recently been adopted, but EPA has not yet made a designation for the Bay Area for those standards.

These air quality standards apply to the Bay Area as a whole. Thus, the fact that Hayward may be in an "attainment" area or a "non-attainment" area for a given pollutant does not mean that the air quality in Hayward is any better or worse than anywhere else in the Bay Area, and does not mean that the proposed project will have any greater or lesser impacts on air quality if it is operated in Hayward as opposed to any other location in the Bay Area.

The fact that the Bay Area is designated as "non-attainment" for certain pollutants does not mean that no new projects can be built. The District does not prohibit all new projects as a result of a "non-attainment" designation. Instead, the District requires new projects — including the proposed Eastshore Energy Center — to incorporate strict air pollution controls to ensure that emissions are minimized, and also requires new sources of emissions to be "offset" by shutting down older sources of emissions so that there is no net increase as a result of the new project. This process ensures that regional emissions will continually be reduced in order to bring the region into "attainment" for all regulated pollutants.

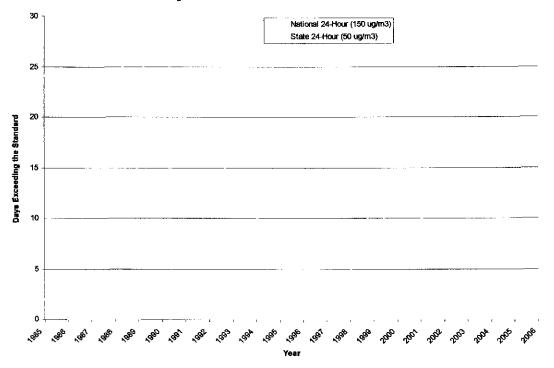
The District's regulatory system has a good track record in this regard. Air quality in the Bay Area has been improving over time as shown in Figures 1, 2 and 3. The region still faces challenges in meeting the air quality standards for ozone and fine particulate matter, and the District is continuing to develop strategies for the region to achieve compliance with these standards. The latest information is available on our website (www.baaqmd.gov) under the following topics:

PM2.5 Particulate Matter Bay Area Historical Exceedances

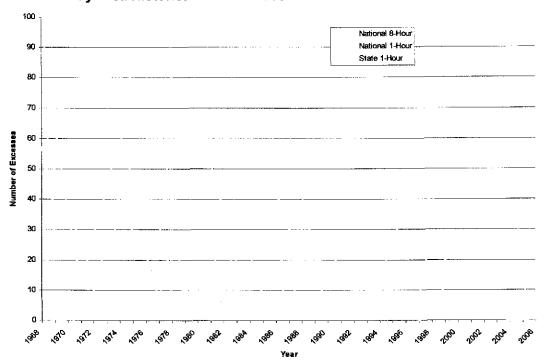


Notes: On December 18, 2006, the USEPA lowered the national 24-hour PM2.5 standard to 35 micrograms per cubic meter.

PM10 Particulate Matter Bay Area Historical Exceedances



## O3 Ozone Bay Area Historical Exceedances



#### Notes:

National 1-hour ozone standard was revoked on June 15, 2005. On May 17, 2005, the California Air Resources Board implemented a new 8-hour ozone standard of 0.070 ppm, which was exceeded on 22 days in 2006 in the Bay Area.

#### Comment Category 2: Public Health Impacts due to proposed facility.

Commenters stated concerns over emissions of Toxic Air Contaminants from the proposed project and the Russell City Energy Center. Commenters were also concerned regarding proposed project impacts on asthma and health for nearby members of the community.

#### Response to Comment Category 2

The District takes very seriously the health concerns raised by the commenters. There are a number of health problems that can be caused or exacerbated by air pollution, and the District is committed to improving air quality and public health in all communities throughout the Bay Area.

As shown in the FDOC the District performed a Health Risk Screening Assessment for the project and the results were in compliance with the District Rule 2, Regulation 5 requirements. The results of the Health Risk Assessment were below the significance criteria for cancer risk, chronic health impacts, and acute non-cancer health impacts. The District review shows that the emissions from the proposed facility will not cause a significant impact on public health in the community. The District also performed a Heath Risk Screening Assessment for the Russell City Energy Center that shows that facility will not cause a significant impact on public health in the community.

## Asthma and Health

With respect to asthma specifically, California Energy Commission staff examined the potential for asthma impacts in its Preliminary Staff Assessment and found that the proposed project would not cause a significant impact on asthma and public health in the community. The District reviewed this assessment and concurs in its conclusions. The Preliminary Staff Assessment is available at the Energy Commission website, and at the Hayward Public Library.

Comment Category 3: Cumulative Impact of proposed project, Russell City Energy Center and other existing sources of air pollution in the West Hayward area.

Commenters stated concerns regarding the cumulative impact of the proposed project, the Russell City Energy Center, and other existing air pollution sources in the surrounding community.

#### **Response to Comment Category 3**

The potential for cumulative impacts on air quality has been addressed through the CEC licensing process that is equivalent to the California Environmental Quality Act ("CEQA") environmental impact review process. Because the proposed project is a power plant that will be licensed by the CEC, the CEC has taken the lead for this project for purposes of conducting the environmental review. The CEC's staff has completed a detailed review of the potential impacts in its Preliminary Staff Assessment, and found that after mitigation measures are implemented there will be no significant cumulative impacts. The District supports the CEC's analysis and incorporates it by reference.

# Comment Category 4: Proximity of the proposed project to nearby schools and residents.

Commenters expressed concern regarding the land use of the proposed site and its proximity to nearby schools and residents.

## **Response to Comment Category 4**

Local land-use determinations and decisions about where to site power plants are made by the City of Hayward and the California Energy Commission, not by the District. The District's role is to evaluate the potential air quality impacts of a proposed project and determine whether the project will comply with air quality regulations. The District has done so and has determined that the proposed project will comply, as explained in the Determination of Compliance. In doing so, the District evaluated the potential for impacts on neighboring schools and residents.

# Comment Category 5: Use of District Monitoring Network for Ambient Air Quality at Project Site.

Commenters stated a concern that the District does not currently have an ambient air monitoring station in the specific project area and the baseline ambient air quality data from the District air monitoring network may not be representative of air quality in the project area.

#### **Response to Comment Category 5**

The District's extensive air monitoring network provides a very good picture of ambient air quality conditions at the proposed project's location. The District currently operates 30 air monitoring stations throughout the 9 Bay Area counties, and meets or exceeds all monitoring requirements established by the California Air Resources Board and the US Environmental Protection Agency. The data produced by the District's air monitoring network and meteorological monitoring network is representative of the conditions in Hayward and the East Bay area.

The District does not place an air monitoring station in every single community throughout the Bay Area because to do so would be very costly and is not necessary to measure ambient air quality accurately. Monitoring stations have expensive capital costs and the equipment requires a specialist to operate and maintain the station. There is no need for additional stations beyond what the District already has in its extensive monitoring network in order obtain a representative picture of ambient air quality for a given area, and the costs of doing so would not be justified.

# Comment Category 6: Use of Emission Reduction Credits to comply with District Rules and Regulations and to mitigate project impacts.

Commenters stated a concern that Emission Reduction Credits allow the facility to violate or bypass Air Quality Rules and Regulations, and that the use of Credits was not appropriate, nor an effective form of mitigation.

## **Response to Comment Category 6**

The commenters are incorrect that the use of Emission Reduction Credits allows a facility to violate or bypass Air Quality rules and regulations.

The use of Emission Reduction Credits is the second step in a two-step process to ensure that air pollution is minimized and reduced in the Bay Area. The first step requires that all new projects meet strict regulations to minimize emissions. All new projects that will emit over 10 pounds per highest day of NOx, POC, CO, PM10, or SOx must use the Best Available Control Technology ("BACT") to reduce emissions to the maximum feasible extent. Then, once a project has minimized its emissions as much as feasible, the second step requires that any remaining emissions that cannot be minimized must be "offset" by the use of Emission Reduction Credits to ensure that there is no net emissions increase overall as a result of the new project. Thus, the use of Emission Reduction Credits does not circumvent air quality regulations, it is an integral part of the air quality regulations. In fact, this system is required by the California Clean Air Act.

The use of Emission Reduction Credits – also known as "Emissions Banking" – has worked to improve air quality in the Bay Area, in other parts of California, and on a national level. In California, ozone levels have been reduced in many areas in part because of Emissions Banking. On a national and international level, Emissions Banking has helped to reduce acid rain in the Northeast and in Canada.

Emissions Reduction Credits are generated by closing sources down or by reducing emissions from sources beyond what air quality regulations require. The District maintains a "bank" of Emissions Reductions Credits generated by such reductions, from which new projects must obtain Credits to offset their emissions. A facility wanting to bank its emissions reductions must submit a Banking Application to the District. The Application is evaluated by an engineer to determine the quantity of emissions reductions that may become Emission Reduction Credits. The total emissions reductions from the closure of a facility may be significantly higher than the quantity that may become Emissions Reduction Credits.

District regulations require the proposed project to obtain offsets for its NOx and POC emissions because the facility will emit greater than 35 tons per year of those pollutants. The proposed facility will be required to offset its NOx and POC emissions at a ratio of 1 to 1.15, meaning that for every ton emitted the facility will have to provide 1.15 tons of Emissions Reduction Credits. NOx and POC are both ozone precursors, and District regulations allow POC offsets to be used interchangeably for NOx. The proposed facility will be required to provide the Emissions Reduction Credits before the District issues the Authority to Construct for the project.

Additional information on Emissions Banking and Emission Reduction Credits may be found on the District website (www.baaqmd.gov) under the following topic:

## Comment Category 7: Adequacy of Emissions Estimates for Wartsila Engines.

Commenters stated that Wartsila emissions information was used by the District to estimate emissions from the engines, and this was not appropriate since the company would benefit from the sale of these proposed engines. Commenters stated that adequate independent emissions testing had not been conducted for this specific Wartsila engine. Commenters stated that Wartsila emissions information was not compared to independently gathered emissions data. Commenters stated that emissions factors for Toxic Air Contaminants were not representative of the Wartsila engines proposed for use at the Eastshore Energy Center.

## **Response to Comment Category 7**

The District based its estimates of emissions from the proposed project on reliable data from the testing of similar engines to the ones that will be used at the proposed project. The first section below outlines the data the District relied on for emissions of "criteria pollutants", which are pollutants that are not normally significant when emitted by a single facility, but which may become significant when emitted by a large number of sources and combine to impact ambient air quality over a large area. The second section outlines the data the District relied on for Toxic Air Contaminants ("TACs").

## Criteria Pollutants

For criteria pollutants, the District relied primarily on independent testing conducted on similar engines at six other facilities, as explained in the FDOC. These tests were conducted by EPA-certified independent testing contractors to demonstrate that each engine could meet its permit limits. The data from these tests provide a good basis from which to estimate emissions from the proposed project.

The District considers all available information about emissions, and did review data supplied by Wartsila, the manufacturer of the engines. This was not the only information the District considered, as noted above. But even so, the District does not simply rely on the emissions estimates it develops for a proposed project, it incorporates them into the permits it issues as enforceable conditions. Here, the proposed project will be required to demonstrate that its emissions are no more than the estimated amounts, and will be subject to enforcement action if it exceeds the limits.

#### **Toxic Air Contaminants**

To estimate emissions of TACs from the proposed project, the District used published emission factors from the California Air Resources Board, called CATEF factors. These emissions factors are based on source testing conducted in the early 1990s on two natural gas fired engines similar to the ones that will be used at the proposed project. The CATEF factors provide a conservative estimate of emissions from the proposed project for several reasons. First, emissions from newer engines are typically much lower than for the older models used in determining the CATEF factors. Second, the engines used in determining CATEF factors were not equipped with an oxidation catalyst, which reduces emissions of organic TACs. The engines at the proposed project will be equipped with an oxidation catalyst.

To confirm further that the CATEF factors provide a conservative estimate of emissions from this project, the District compared the CATEF factors with data from tests on existing Wartsila engines for emissions of formaldehyde. Formaldehyde is one of the most important TACs from

the proposed project because it is the second-highest cancer risk driver. Together with 1,3-Butadiene, these TACs account for over 90% of the total calculated cancer risk from the proposed facility. All 14 engines at the Nevada facility that uses Wartsila engines were tested for formaldehyde emissions, and in every case emissions were well below the CATEF factors. As shown below, the highest test result was less than half of the CATEF factor (adjusted for a 40% abatement efficiency) and the average result was an order of magnitude less than the CATEF factor (adjusted for a 40% abatement efficiency). These results further confirm that the CATEF factors provide conservative estimates of emissions from the proposed facility and are appropriate for use in evaluating TAC emissions and associated impacts.

Source	Emission Factor lb/MMBtu			
CATEF	0.00462 No Oxidation Catalyst			
Emission Factor for Health Risk Assessment	0.00462 x 0.6 = 0.00277			
Nevada AVG	0.000277			
Nevada MAX	0.0012			

Notes: Oxidation Catalyst Reduction Efficiency = 40%

Nevada AVG = Average of all 14 Engines

Nevada MAX = Maximum Engine

Finally, the District will require the applicant to test an engine for all TACs of concern once the project is built, and to use the results to rerun the Health Risk Screening Assessment to demonstrate that the facility complies with the District's Risk Management Rule. This requirement will alleviate any potential concerns about whether the estimates the District used are sufficiently accurate.

In addition, each Wartsila engine will be equipped with a Continuous Emission Monitor for Carbon Monoxide. Carbon Monoxide and Organics are formed in the combustion process due to incomplete combustion. An engine with high carbon monoxide emissions would also have high organic emissions and a portion of the organic emissions are TAC. The Environmental Protection Agency is currently promulgating a regulation to reduce Hazardous Air Pollutants from large internal combustion engines. The EPA background information supporting this draft rule states that the agency has determined that Non Methane Hydrocarbons, carbon monoxide, and formaldehyde are good surrogates for all Hazardous Air Pollutant emissions from internal combustion engines. The continuous monitoring for carbon monoxide allows the District to determine if an engine is emitting high quantities of incomplete combustion products and whether the oxidation catalyst is working correctly.

## Comment Category 8: Global Warming Impacts.

Commenters were concerned that the plant would emit green house gases that contribute to global warming.

# **Response to Comment Category 8**

The proposed facility will burn fossil fuel and therefore will emit greenhouse gases that contribute to global climate change. The facility will burn natural gas, however, which is the cleanest burning and least carbon-intensive fossil fuel. In addition, a significant number of California's electric generating stations are over 30 years old, and a new facility is much more efficient than these older units. New facilities require less fuel per Megawatt of energy produced. The California Air Resources Board is developing an implementation strategy for Assembly Bill 32, which the governor signed into law last year. District staff will be working with the Air Resources Board in reducing emissions of green house gases in the Bay Area to meet the requirements of Assembly Bill 32. Additional information regarding greenhouse gas emissions from the proposed facility may be found in the California Energy Commissions Preliminary Staff Assessment.

## Comment Category 9: Potential Environmental Justice Impacts.

Commenters raised issues relating to environmental justice due to the proposed project and the Russell City Energy Center.

#### **Response to Comment Category 9**

The District is committed to implementing its permitting programs in a manner that is fair and equitable to all Bay Area residents regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location in order to protect against the health effects of air pollution. The District has worked to fulfill this commitment in making its Determination of Compliance for the proposed project.

The District and the CEC have undertaken a detailed review of the potential public health impacts of the emissions associated with the proposed facility, and have found that after mitigation measures are implemented the project emissions will not have a significant impact on public health or air quality in the community. Since there will be no significant air-quality related impact, by definition there cannot be a significant impact on an environmental justice community. <sup>1</sup>

If you have any additional questions, please contact Mr. Brian Lusher at or (415) 749-4623.

Thank you for your comments.

Very truly yours,

Brian F. Bateman Director of Engineering Engineering Division

BFB:BKL

<sup>&</sup>lt;sup>1</sup> The commenters did not provide any specific information about any racial, ethnic, or economic characteristics about the area in which the proposed project would be located, which would be needed to determine whether the area is an environmental justice community. Because the District has determined that the proposed project would not have any significant adverse impacts, it necessarily follows that there can be no significant environmental justice impacts no matter what the exact characteristics of the area are. The District has therefore concluded that the proposed project does not implicate environmental justice concerns without adopting a position on whether the project is located in an environmental justice community.