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## **Exhibit 7**

**SFERP Testimony Bill Powers and Bob Sarvey**

# Air Quality Testimony of Bill Powers and Bob Sarvey

## EXISTING AMBIENT AIR QUALITY

The applicant admits in all parts of their testimony that this minority low income community is overburdened by industrial pollution. The City of San Francisco Ordinance 124-01 which defines the conditions under which the city could site additional power generation in Southeast San Francisco states that : "(C) Southeast San Francisco has a disproportionate number of industrial and polluting facilities. (D) Southeast San Francisco has an extraordinarily high rate of childhood asthma and other serious respiratory diseases." (Supplement A page 4-1). The applicant has clearly stated that cumulative air quality in the project area is very poor due to the high concentration of industrial facilities which has led to an increased rate of childhood asthma and other respiratory diseases. "The City recognizes that there will be PM10 impacts from the SFERP in both Potrero and Bayview/Hunters Point." (Supplement A page 8-1.1)

## Monitoring Data

The monitoring data used by the applicant and CEC Staff is taken from the Arkansas Street Monitoring Station. The applicant also has set up a local monitoring station in the Bay view Hunters point area. For most pollutants the project area is in attainment. From Supplement A the applicant presents the following data from 1994 to 2003 indicating than Federal PM 2.5 24 hour violations have occurred at the site. The data indicates that as many as four 24 hour violations have occurred and that the state 12 ug/m3 annual standard has also been violated. No analysis is presented beyond 2003.

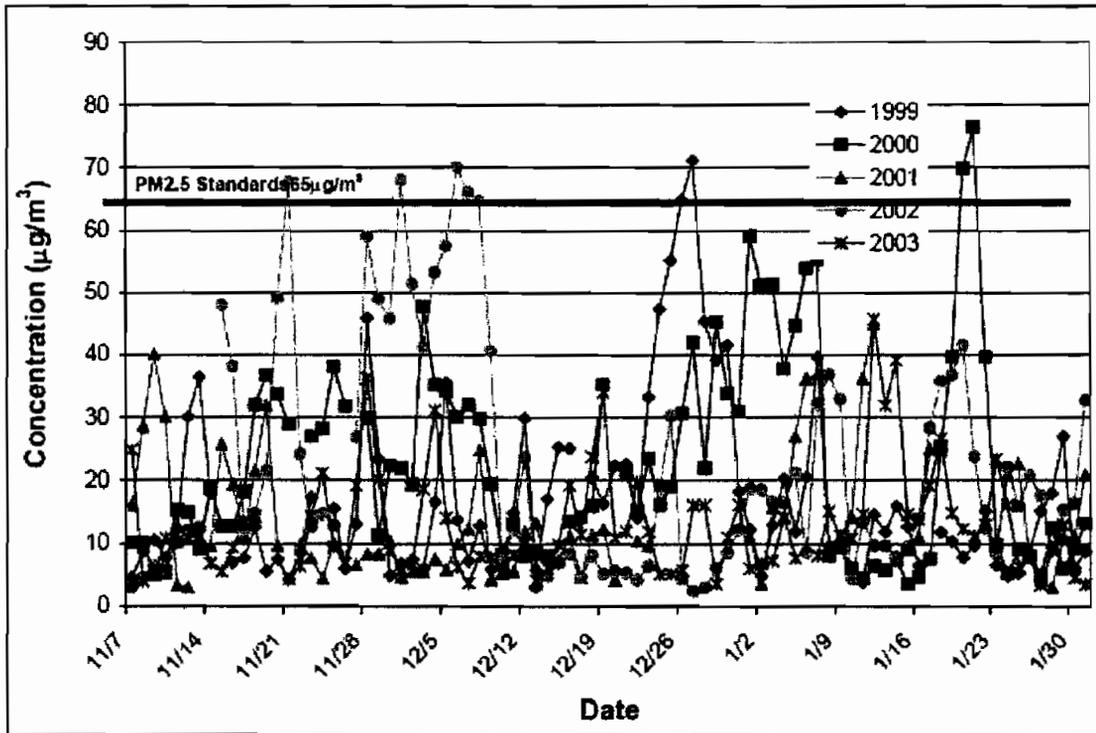
TABLE 8.1-8  
PM<sub>2.5</sub> Levels in San Francisco, Arkansas Street Monitoring Station, 1994-2003 (ppm)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Highest 24-Hour Average	-	-	-	-	-	71.2	47.9	76.6	70.2	41.6
Number of Days Exceeding:										
Federal Standard (65 ug/m <sup>3</sup> , 24-hour)	-	-	-	-	-	1	0	2	4	0
95th Percentile	-	-	-	-	-	47.4	35.3	51.3	57.5	33.0
3-yr Average, 95th Percentile	-	-	-	-	-	-	-	-	-	47
Annual Arithmetic Mean	-	-	-	-	-	12.6	11.4	11.5	13.1	10.1
3-yr Annual Average (Federal Std = 15 ug/m <sup>3</sup> )	-	-	-	-	-	-	-	11.8	12.0	11.6

Source: California Air Quality Data, California Air Resources Board (CARB, 2005); USEPA AirData (USEPA, 2005)

CEC Staff's analysis of PM 2.5 data from page 4.1-15 of the FSA is presented below. Staff analyzes data from 1999 to 2003 and comes to the same conclusion that PM 2.5 violations have occurred in the project area although staff does not present the frequency which they have occurred. Staff's analysis is limited to data from 1999 to 2003.

**AIR QUALITY FIGURE 7**  
**Measured PM2.5 Concentrations (1999-2003)**  
**Arkansas Street Station**



Source: CARB ambient air quality data.

Monitoring data from the BAAQMD Web Site indicates that PM 2.5 levels are 5 to 10% higher at the Bayview monitoring station than at the Arkansas Street monitoring station. (<http://gate1.baaqmd.gov/aqmet/AQYearly.aspx>) (Exhibit 3) Further monitoring needs to be done to determine why asthma rates are so high in this community. A Cumulative Toxic impacts analysis should be performed modeling all the numerous Toxic emission sources in Southeast San Francisco to examine the additional toxic burden from the SFERP. Toxic Monitoring data is available at the BAAQMD website. [http://www.baaqmd.gov/pmt/air\\_toxics/annual\\_reports/index.h](http://www.baaqmd.gov/pmt/air_toxics/annual_reports/index.h)

## **Adequacy of the Proposed Mitigation**

### **NOx Mitigation**

The applicant proposes to use NOx Emissions Reduction Credits from the Potrero Power Plant that were issued in 1985. These credits may satisfy Federal Clean air Rules but they do not comply with CEQA, CCSF LORS, or Environmental Justice Considerations. . ERC's from 1985 will not mitigate emissions in 2007 when the project is operating in a community that "has a disproportionate number of industrial and polluting facilities." The applicant is obligated to advocate real time emission reductions by City Ordinance 124-01. NOx emission reductions could easily be generated with vehicle scrapage programs in the low income community, heavy duty engine replacements for transit buses and school buses, clean air equipment at the port and other proven NOx reduction programs for less money than is being paid for 20 year old emission reduction credits form the same power plant the applicant proposes to shut down. The applicant has failed to pursue these reductions in violation of the CCSF policies.

### **SO2 Mitigation**

The applicant has provided no mitigation for the projected 2.7 tons of SO2 per year from the SFERP. SO2 is a precursor to PM 2.5 and if left unmitigated has the potential to form an unknown quantity of PM 2.5. The applicant is proposing to offset PM 2.5 emission with SO2 at a three to one ratio indicating that even the applicant believes the unmitigated SOx emissions will create approximately one ton of unmitigated PM 2.5. In the low income minority community it's important that all emissions form the project be offset.

### **PM 2.5 Mitigation**

The applicants proposed street sweeping mitigation program will generate only 3.2 tons of PM 2.5 reductions a year. The project will emit over 15 tons per year of PM 2.5. During the PM season the roads will be damp from rain and fog and the street sweeping will be less effective at the time the PM 2.5 levels are the highest. The applicants proposed street sweeping program will not offset the projects PM 2.5 emission for the life of the project. AQSC-12 allows the applicant to offset the remaining 12 tons of PM 2.5 at a three to one ratio. AQSC-12 does not meet CCSF ordinances regarding new generation in Southeast San Francisco. The applicant is required to pursue real time emission reductions in Southeast San Francisco. The proposed seasonal mitigation in AQSC-11 does not address the annual PM 2.5 impacts from the project since it only requires mitigation during the months of November to February. The BAAQMD has changed the PM 2.5 emission limit form 3 pounds

per hour to 2.5 pounds per hour. Applicant's air quality witness has provided testimony and data in previous licensing cases that the LM -6000 turbines utilized for this project will not meet the 2.5 pounds per hour limitation.

**Fuel Effort Conversion Analysis**  
Summary of Results and Estimated Maximum of each gas emission from various combustion units within combustion facility

Facility	Unit	SCR	Or-Cat	C/S	Plant	Date	Run	Fuel 5			Heat Input MMBtu/hr	Fuel 5/10		Fuel 5/20		Mean CO2			Fuel 5 Conversion to BOD	PM10 Factor			
								mass	power	eff		mass	power	mass	power	mass	power	mass			power	mass	power
Enbridge	1	F	N	F	40	01/01/2002	34-78-1	4.13	2.78	0.127	105504	1071	12,324	1480	21,833	1,223	0.383	0.198	0.00020	0.188	EPA 5	100%	0.23
Enbridge	1	F	N	F	40	01/01/2002	34-78-1	4.13	2.78	0.127	105504	1071	12,324	1480	21,833	1,223	0.383	0.198	0.00020	0.188	EPA 5	100%	0.23
Enbridge	1	F	N	F	40	01/01/2002	34-78-1	4.13	2.78	0.127	105504	1071	12,324	1480	21,833	1,223	0.383	0.198	0.00020	0.188	EPA 5	100%	0.23
Enbridge	2	F	N	F	40	01/01/2002	34-78-2	4.22	2.21	0.131	105504	2112	22,324	1223	32,225	2,071	0.389	0.225	0.00011	0.280	EPA 5	80%	1.91
Enbridge	2	F	N	F	40	01/01/2002	34-78-2	4.22	2.21	0.131	105504	2112	22,324	1223	32,225	2,071	0.389	0.225	0.00011	0.280	EPA 5	80%	1.91
Enbridge	2	F	N	F	40	01/01/2002	34-78-2	4.22	2.21	0.131	105504	2112	22,324	1223	32,225	2,071	0.389	0.225	0.00011	0.280	EPA 5	80%	1.91
Enbridge	3	F	N	F	40	01/01/2002	34-78-3	0.17	3.21	0.128	105504	1163	12,324	1480	18,136	2,091	0.385	0.245	0.00008	0.223	EPA 5	100%	2.46
Enbridge	3	F	N	F	40	01/01/2002	34-78-3	0.17	3.21	0.128	105504	1163	12,324	1480	18,136	2,091	0.385	0.245	0.00008	0.223	EPA 5	100%	2.46
Enbridge	3	F	N	F	40	01/01/2002	34-78-3	0.17	3.21	0.128	105504	1163	12,324	1480	18,136	2,091	0.385	0.245	0.00008	0.223	EPA 5	100%	2.46
Enbridge	4	F	N	F	40	01/01/2002	34-78-4	0.32	4.50	0.298	105504	2070	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	4	F	N	F	40	01/01/2002	34-78-4	0.32	4.50	0.298	105504	2070	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	4	F	N	F	40	01/01/2002	34-78-4	0.32	4.50	0.298	105504	2070	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	5	F	N	F	40	01/01/2002	34-78-5	0.52	4.30	0.288	105504	1910	22,324	1223	32,225	2,071	0.378	0.275	0.00002	0.258	EPA 5	5%	2.12
Enbridge	5	F	N	F	40	01/01/2002	34-78-5	0.52	4.30	0.288	105504	1910	22,324	1223	32,225	2,071	0.378	0.275	0.00002	0.258	EPA 5	5%	2.12
Enbridge	5	F	N	F	40	01/01/2002	34-78-5	0.52	4.30	0.288	105504	1910	22,324	1223	32,225	2,071	0.378	0.275	0.00002	0.258	EPA 5	5%	2.12
Enbridge	6	F	N	F	40	01/01/2002	34-78-6	0.52	4.30	0.288	105504	1910	22,324	1223	32,225	2,071	0.378	0.275	0.00002	0.258	EPA 5	5%	2.12
Enbridge	6	F	N	F	40	01/01/2002	34-78-6	0.52	4.30	0.288	105504	1910	22,324	1223	32,225	2,071	0.378	0.275	0.00002	0.258	EPA 5	5%	2.12
Enbridge	7	F	N	F	40	01/01/2002	34-78-7	0.82	4.50	0.288	105504	3040	22,324	1223	32,225	2,071	0.374	0.268	0.00008	0.248	EPA 5	30%	3.08
Enbridge	7	F	N	F	40	01/01/2002	34-78-7	0.82	4.50	0.288	105504	3040	22,324	1223	32,225	2,071	0.374	0.268	0.00008	0.248	EPA 5	30%	3.08
Enbridge	7	F	N	F	40	01/01/2002	34-78-7	0.82	4.50	0.288	105504	3040	22,324	1223	32,225	2,071	0.374	0.268	0.00008	0.248	EPA 5	30%	3.08
Enbridge	8	F	N	F	40	01/01/2002	34-78-8	0.52	4.50	0.288	105504	1910	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	8	F	N	F	40	01/01/2002	34-78-8	0.52	4.50	0.288	105504	1910	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	8	F	N	F	40	01/01/2002	34-78-8	0.52	4.50	0.288	105504	1910	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	9	F	N	F	40	01/01/2002	34-78-9	0.52	4.50	0.288	105504	1910	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	9	F	N	F	40	01/01/2002	34-78-9	0.52	4.50	0.288	105504	1910	22,324	1223	32,225	2,071	0.375	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	10	F	N	F	40	01/01/2002	34-78-10	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	10	F	N	F	40	01/01/2002	34-78-10	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	10	F	N	F	40	01/01/2002	34-78-10	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	11	F	N	F	40	01/01/2002	34-78-11	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	11	F	N	F	40	01/01/2002	34-78-11	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	12	F	N	F	40	01/01/2002	34-78-12	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	12	F	N	F	40	01/01/2002	34-78-12	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	13	F	N	F	40	01/01/2002	34-78-13	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	13	F	N	F	40	01/01/2002	34-78-13	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	14	F	N	F	40	01/01/2002	34-78-14	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	14	F	N	F	40	01/01/2002	34-78-14	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	15	F	N	F	40	01/01/2002	34-78-15	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	15	F	N	F	40	01/01/2002	34-78-15	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	16	F	N	F	40	01/01/2002	34-78-16	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	16	F	N	F	40	01/01/2002	34-78-16	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	17	F	N	F	40	01/01/2002	34-78-17	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	17	F	N	F	40	01/01/2002	34-78-17	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	18	F	N	F	40	01/01/2002	34-78-18	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	18	F	N	F	40	01/01/2002	34-78-18	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	19	F	N	F	40	01/01/2002	34-78-19	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	19	F	N	F	40	01/01/2002	34-78-19	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	20	F	N	F	40	01/01/2002	34-78-20	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.12
Enbridge	20	F	N	F	40	01/01/2002	34-78-20	1.80	0.89	0.022	105504	2010	22,324	1223	32,225	2,071	0.382	0.273	0.00002	0.258	EPA 5	5%	2.

Available Control Technology for Toxics, or TBACT: requires for any new or modified source of toxic air contaminants, except cargo carriers, the most stringent of the following emission controls, provided that under no circumstances shall the controls be less stringent than the emission control required by any applicable provision of federal, State or District laws, rules, regulations or requirements. BAAQMD regulation 205.1 requires the most effective emission control device or technique which has been successfully utilized for the type of equipment comprising such a source. As demonstrated on page B-5 of Exhibit 12 several simple cycle power plants in the BAAQMD utilizing the Sprint LM-6000 have achieved ammonia slip levels less than 2ppm. The Creed Energy Center tests at .76ppm Ammonia slip, The Goose Haven energy Center at a .42ppm ammonia slip, and the Lambie Energy Center at a 1.5ppm ammonia slip. All three projects have been achieving ammonia slip levels of less than 2ppm and NOx levels of 2.5ppm or less. BAAQMD regulation 205.1 requires the most effective emission control device or technique which has been successfully utilized for the type of equipment comprising such a source. Accordingly the project must adopt 5ppm or less ammonia slip limit to comply with TBACT.

### **Startup and shutdown 5 hours**

The FDOC has eliminated any emission limitation on startups and shutdowns allowing up to five hours of startups and shutdowns per day which exposes this community to elevated levels of Toxic Air Contaminants (TACs) from excessive startups and shutdowns. The projects impacts have not been evaluated by the applicant or staff with 5 hours of startup and shutdowns in one day. Toxic Air Contaminant levels have not been evaluated with the frequency of startup and shutdowns allowed by the FDOC. A peaker plant has a 10 minutes startup but the FDOC treats the SFERP like a large combined cycle plant which needs a much longer startup time. Startups and shutdown should be limited to a level that is more indicative of the operation of a Peaker Plant. A 30 minute startup and a 30 minute shutdown limit should be required. The ARB recommends that startup and shutdown emissions should be minimized with permit conditions limiting their duration. (Exhibit 6 page 37)

### **Cumulative Impact Analysis**

Neither applicant nor staff has completed a cumulative impact analysis that includes all reasonably foreseeable projects near the proposed SFERP. The applicant and staffs failure to model these sources and predict the impacts in conjunction with the SFERP are a violation of CEQA and a serious omission in light of the applicant's admission throughout the proceeding that the residents of Southeast San Francisco are overburdened by industrial pollution. Not only does the City want to site the SFERP in Southeast San Francisco they are also

adding and expanding many more industrial polluting facilities in close proximity to the SFERP. The Bode Gravel and Mission Valley Rock facilities are expanding. The Hanson Aggregate facility is also expanding. The Nor Cal recycling facility is expanding. The Muni Bus parking and repair facility has yet to be completed and the Illinois street bridge project is still under construction. No air quality traffic impacts assessment has been provided for the Illinois Street Bridge project which will pour tons of particulates and toxics on the minority community. Many other facilities are currently being developed under the San Francisco Southern Waterfront EIR. The applicant also has plans for the following future port development:

**Cargo Shipping.** The Port's two container terminals, at Pier 80 and Pier 94-96, would potentially accommodate increased cargo shipping activity consisting of handling of both containerized and non-containerized cargo. The project therefore would include movement of approximately 200,000 TEU<sup>2</sup> of new cargo (beyond existing volumes of approximately 50,000 TEU) in addition to the cargo activity associated with the Industry Group leases. Of the 200,000 new TEU, 30,000 TEU is assumed to be accommodated by 2001, another 20,000 TEU by 2003, and 150,000 additional TEU by 2015. Cargoes may be containerized or bulk, depending on demand from shippers.

**Dredge Material Handling Site.** The Port has recently begun storing material dredged from the Bay during routine maintenance dredging from Piers 35, 80, and 96. (The Port also uses storage sites in the East Bay.) Currently, dredge material is placed by crane onto the pier deck within a temporary three-acre enclosure at Pier 96 and allowed to drain and partially dry (to about 20 percent moisture content) before being hauled by truck to landfills, where it is used as daily cover for solid waste landfilling operations. The (drained) decant water is discharged to the Bay. The Port plans to expand this operation and move it to Pier 94, where it would occupy up to about five acres of unpaved land north of the paved pier apron. At the new site, about 20,000 cubic yards of dredge material per year would be pumped from a barge into the drying area. It is anticipated that the off-hauling by truck of partially dried dredge materials would occur over a period of about two weeks during the year. Trucks would travel on Amador Street.

**Piers 90-94 Backlands.** This approximately 50-acre area would potentially be developed with a mix of about 650,000 square feet of light industrial uses and approximately 1 million square feet of commercial office and/or research and development uses. Office and/or research and development uses would be anticipated to occur in two- to three-story buildings that would be expected to include landscaped open spaces as part of an overall site plan.

**Pier 70.** The project analyzed in this SEIR includes development of approximately 200,000 square feet of new Maritime Industrial uses and an additional 200,000 square feet of General Industrial uses within the 55-acre Pier 70 Maritime Reserve Area. The Waterfront Plan includes Maritime Industry among the uses related to waterborne commerce and navigation. Maritime Industry could also include Maritime Support uses such as equipment storage and warehousing uses. The Plan defines General Industry as "facilities for enclosed and open air industrial activities, including but not limited to: recycling operations, automobile repair and related services, bio-remediation, sand and gravel operations, transmission facilities, and manufacturing operations."

**Pier 70 Mixed-Use Opportunity Area.** The project analyzed in this SEIR includes development of this 16-acre area, between 18th and 21st Streets and extending one to three blocks east of Illinois Street. It is anticipated that uses in this area would include a mix of uses, including approximately 610,000 square feet of commercial office and/or research and development space; 100,000 square feet of retail and other commercial space; and 240,000 square feet of public access and recreational maritime uses. The Port plans to issue a Request for Proposals to potential developers of the Pier 70 Mixed-Use Opportunity Area in late 2000. (An alternative considered in this SEIR would include housing on a portion of the Pier 70 Mixed-Use Opportunity Area.)

**Western Pacific Property.** This site, a former rail yard east of Illinois Street between 25th and César Chávez (Army) Streets, will be partially occupied by a Muni Metro maintenance and storage facility that will be constructed as part of the soon-to-be undertaken Third Street Light Rail Extension project. The Muni Metro facility was analyzed in the EIR/EIS for the Light Rail Project, and will occupy about three-fourths of the approximately 25-acre Western Pacific Property. No specific development projects are forecast for the remainder of the Western Pacific Property. However, as part of the project analyzed in this SEIR it is assumed that part of the remainder of this site would be occupied by General Industrial uses, potentially including construction-related uses such as materials storage, on an interim basis.

This development is occurring under the applicant's authority within six miles of the project yet the applicant refuses to do a cumulative impact assessment or a cumulative toxic health risk assessment on the impacts to the minority low income community.

The air quality and public health analysis does not examine the combined effects of the numerous facilities that emit toxic air contaminants on to the minority low income community of Southeast San Francisco. There is no cumulative toxics analysis of the numerous pollution sources in the community as required by Environmental Justice Considerations and the applicants LORS. The analysis ignores the well documented effects of criteria air pollutant impacts below current state standards and in conjunction with the overburdened minority population that already has elevated instances of asthma and cardio pulmonary disease.

The DTSC has called for a health risk assessment that has not been completed on disturbance of soil for the reclaimed water pipeline. There is also the potential for public health risks from the disturbance of soil at the site since the applicant has finally submitted the soil sample testing requested in Sarvey data request 17 and 18 on June 24, 2005. A health risk assessment from airborne contaminants from site disturbance and the reclaimed water line must be completed to determine additional health risks to the minority community.