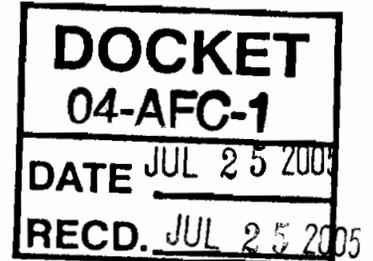




**CH2MHILL**

July 25, 2005  
184288

CH2M HILL  
2485 Natomas Park Drive  
Suite 600  
Sacramento, CA 95833-2937  
Tel 916.920.0300  
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Mr. William Pfanner  
Siting Project Manager  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814-5504

RE: Sarvey Data Responses, Set 1A  
San Francisco Electric Reliability Project (04-AFC-1)

Dear Bill:

On behalf of the City of San Francisco, please find attached 12 copies and one original of Sarvey Data Responses Set 1A, in response to Bob Sarvey's Data Requests dated June 24, 2005. Copies of the data responses are being filed both electronically and in hard copy.

Please call me if you have any questions.

Sincerely,

CH2M HILL

John L. Carrier, J.D.  
Program Manager

c: Project File  
Proof of Service List

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**SAN FRANCISCO ELECTRIC  
RELIABILITY PROJECT  
(04-AFC-1)**

**DATA RESPONSE, SARVEY SET 1A**  
(Responses to Data Requests: 1-1 through 1-22)

Submitted by  
**CITY AND COUNTY OF SAN FRANCISCO**

July 25, 2005



2485 Natomas Park Drive, Suite 600  
Sacramento, California 95833-2937

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**San Francisco Electric Reliability Project (SFERP)  
(04-AFC-1)  
Sarvey Set 1A**

## **Project Objectives**

**Background:** In response to Staffs data request #179 the applicant replied; “Nonetheless, it is the City’s expectation that the SFERP will mostly operate to provide local reliability service.”

### **Data Request**

- 1-1. Does the Applicant intend to run the project for any other reason other than ISO dispatched reliability generation? Does the applicant intend to run the project for cost recovery or to earn a profit from this facility at any time during the lifetime of the project?

**Response** As stated in response to data request 179, during the term of the PPA, DWR will determine the uses of the SFERP. The PPA provides for recovery of the costs of the project during the ten year term of the agreement. Thus, operation beyond the scope of the PPA is not contemplated for project cost recovery. The City does not have current plans to operate the project for the purpose of earning a profit after the conclusion of the PPA. The Board of Supervisors may address policy for the project after the PPA expires at the time it takes up approval of key contracts and financing for the project.

**San Francisco Electric Reliability Project (SFERP)  
(04-AFC-1)  
Sarvey Set 1A**

## **Air Quality**

**Background:** The applicant at the May 5, 2005 workshop indicated that PM 2.5 mitigation measures would include enhanced street sweeping and the paving of existing dirt lots. In order to analyze the effectiveness of these proposals please provide the following information.

### **Data Request**

- 1-2. Please provide a description of the area where the enhanced street sweeping will occur and an explanation of why this program does not already exist in the environmentally challenged Southeast San Francisco. Please identify the average particle size (PM-10 and PM -2.5) of the road dust by sampling the locations where the enhanced street sweeping will occur.

**Response:** As noted in the City's objections filed on July 5, 2005, new field sampling will not be conducted. The exact streets where the enhanced street sweeping program will occur have not been decided. Initial plans and emission estimates are based on the assumption that portions of the following roads will be swept:

- Third Street
- Cesar Chavez
- 16<sup>th</sup> Street
- Pennsylvania Avenue
- Illinois Street
- Tennessee Street
- Evans Street
- 23<sup>rd</sup> Street
- 25<sup>th</sup> Street

These streets were selected based on vehicle traffic counts and are intended to maximize the effectiveness and cost-effectiveness of the program. No such program exists anywhere within the City of San Francisco. Existing street cleaning programs are designed to keep gutters clean of rubbish. This would be the first program of its type implemented in San Francisco. Preliminary estimates suggest that the enhanced street cleaning program would reduce PM<sub>10</sub> emissions by 24 tons per year; of this total, approximately 13 percent, or 3 tons per year, would be PM<sub>2.5</sub>.

**Background:** According to BAAQMD data presented for the BayCamp Monitoring Station at Hunter Points recorded violations of the Federal PM 2.5 standards occurred in October and November of 2004. The applicant's project manager mentioned at the informational and site visit that other local monitoring sites had also been set up.

**San Francisco Electric Reliability Project (SFERP)  
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**Data Request**

- 1-3. Please provide the location of the additional monitoring sites and the monitoring results for those sites and provide monthly reports after responding to this data request.

**Response:** The City's PM monitoring program will measure PM<sub>10</sub> and PM<sub>2.5</sub> at the following four locations:

- Malcolm X Academy (Bertha and Harbor)
- Southeast Community Center (Oakdale and Phelps)
- Muni Wood Maintenance Facility (22<sup>nd</sup> and Minnesota)
- Potrero Recreational Center (Madera and Arkansas)

In addition, monitors will be placed at the BAAQMD's monitoring station at 16<sup>th</sup> and Arkansas for comparison purposes.

No data are available from these monitoring sites as yet. The City is evaluating the best method for communicating the data to the community, and will inform the community and the Commission when data are available.

**Cumulative Air Quality**

**Background:** In a record of conversation report submitted by James S. Adams of the CEC docket # 34431 dated May 25, 2005 Mr. Beaupre with the Port of San Francisco stated that the Illinois Street construction Project will start in two weeks.

**Data Request**

- 1-4. Please provide a copy of the CEQA Document and the Exhibits provided to Mr. Adams on the Illinois Street Bridge Project.

**Response:** The following documents were provided to Mr. Adams by Mr. Beaupre. A copy has previously been submitted to CEC Staff; therefore, only one electronic copy is being submitted on CD-ROM to Mr. Sarvey. Electronic copies will be provided to other parties upon request.

- Port of San Francisco Southern Waterfront Supplemental EIR (Attachment AQ1-4A)
- SEIR Addendum prepared for the Illinois Street Bridge Project (Attachment AQ1-4B)

**Background:** Page 8.12-28 of Supplement A refers to the proposed Muni Maintenance and Operations Center that would be impacted by an ammonia incident.

**San Francisco Electric Reliability Project (SFERP)  
(04-AFC-1)  
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**Data Request**

- 1-5. Please provide any CEQA Environmental documents on this proposed project including construction and operational emissions and the estimated construction schedule for this project.

**Response:** This information is included in the Final Environmental Impact Statement/Final Environmental Impact Report for the Third Street Light Rail Project, which is provided as Attachment AQ1-5 on CD-ROM. (A copy has previously been submitted to CEC Staff; therefore, only one electronic copy is being submitted to Mr. Sarvey. Electronic copies will be provided to other parties upon request.)

Current information about the construction of the Maintenance and Operations center (including the schedule) is provided on Muni's webpage:  
<http://www.sfmuni.com/cms/msc/const/3rdmaint.htm#about>

- 1-6. Please provide a Cumulative Air Quality Impact analysis including the impacts from the Illinois Street Bridge project, the Muni Maintenance Center, the pending Potrero Power Plant Project (00-AFC-4) suspended till November 15, 2005 along with other reasonably foreseeable development projects. Please discuss the Environmental Justice implications of these developments on air quality in the project area.

**Response:** As noted in the City's objections filed on July 5, 2005, the City believes it is inappropriate to evaluate the Mirant Potrero Power Project as the construction and operation of that project is not reasonably foreseeable.

The Illinois Street Bridge project was evaluated in the Port of San Francisco Southern Waterfront Supplemental Environmental Impact Report (February 2001; Attachment AQ1-4A) and in the SEIR Addendum (December 2002; Attachment AQ1-4B). The SEIR describes the air quality impacts associated with the construction of the Illinois Street bridge as follows:

"Construction Impacts. Grading and other ground-disturbing construction activities would temporarily affect local air quality intermittently during construction activities for each project component, causing a temporary increase in particulate dust and other pollutants. Heavy equipment would generate fugitive dust and would emit combustion products, including ozone precursors (ROG and NO<sub>x</sub>), carbon monoxide, sulfur dioxide, and PM-10, but the most significant emissions would be fugitive dust. BAAQMD has identified a set of feasible PM-10 control measures for construction activities, and mitigation was included in the Waterfront Plan EIR to reduce construction-related air quality impacts to a less-than-significant level; a revised version of this mitigation measure is included in this SEIR (see p. 146). With implementation of this

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**(04-AFC-1)**  
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measure, construction-related air quality effects would be reduced to a less-than-significant level.” (SEIR, p. S-15)

“The Illinois Street bridge would require minimal grading. Some earthmoving and grading would be required as part of the improvements to connecting rail beds and roads, but this would be no more extensive than typical urban street repaving operations.” (SEIR, p. 82)

“BAAQMD has identified a set of feasible PM-10 control measures for construction activities, and mitigation was included in the Waterfront Plan EIR to reduce construction-related air quality impacts to a less-than-significant level; a revised version of this mitigation measure is included in this SEIR as Mitigation Measure No. C-5 (see p. 148). **With implementation of this measure, construction-related air quality effects would be reduced to a less-than-significant level.**” (SEIR, p. 83) (emphasis added).

The SEIR did not quantify emissions associated with construction of the Illinois Street Bridge. The SEIR addendum did not address air quality issues associated with construction of the Bridge. The SEIR anticipated that bridge construction would occur in 2003. Construction of the Illinois Street Bridge is currently underway and is anticipated to last for 16 more months.

The Muni Metro East maintenance facility was analyzed in the Final Environmental Impact Statement/Final Environmental Impact Report for the Third Street Light Rail Project (November 1998; Attachment AQ1-5). Air quality impacts during construction were summarized as follows:

“Dust and exhaust emissions occurring during construction of the {Initial Operating Segment} and new {Light Rail Vehicle} maintenance facility would be mitigated to less-than-significant level by watering the site and using exhaust controls”. (FEIS/FEIR, p. S-28)

Construction of the Muni Metro East Light Rail maintenance facility is anticipated to begin this summer.<sup>1</sup> Consequently, dust-generating and heavy-equipment activities are expected to be completed before construction is commenced on the SFERP facilities.

The BAAQMD’s CEQA guidelines indicates that “{t}he District’s approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions.”

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<sup>1</sup> <http://www.sfmuni.org/cms/msc/const/3rdmaint.htm>

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Based on the above factors, and given that:

- the construction impacts associated with the Illinois Street Bridge, Muni Metro East Light Rail maintenance facility, and SFERP will all be mitigated to a less-than-significant level,
- construction impacts are, by their nature, temporary and extremely localized, and
- any potential overlap in the timing of these construction activities or their impacts is speculative at this point,

the City believes that the reasonably foreseeable cumulative impacts of these construction activities will be less than significant.

**San Francisco Electric Reliability Project (SFERP)  
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## **Hazardous Materials**

**Background:** Page 8.12-25 of Supplement A states that the project will store 10,000 gallons of Aqueous Ammonia in a 29% solution.

### **Data Request**

- 1-7. Please provide a detailed list of residences and businesses and the number of potential persons that would be exposed due to an accident along the entire proposed ammonia transportation route.

**Response:** As discussed in the objection letter submitted to the CEC on July 5, 2005, the City objects to this request as excessive and unnecessary. A detailed list of sensitive land uses within 3 miles of the proposed site is provided in section 8.12.3 of Supplement A. In addition, as noted in section 8.12.4.2 of Supplement A, the supplier of aqueous ammonia will be selected during the construction and commissioning phases of the project consistent with City procurement requirements. Therefore, the entire transportation route for the aqueous ammonia is not yet known. Notwithstanding and without waiving this objection, please see the response to 1-9.

- 1-8. Please provide a list of facilities that store 10,000 gallons or more of Ammonia in San Francisco and identify their location.

**Response:** A list of facilities within the City of San Francisco that have filed Risk Management Plans is provided in Table 8.12-9 of Supplement A. California requires an RMP for 500 pounds or more of ammonia, so facilities that store 10,000 gallons or more would be a subset of the five entities listed in the table.

- 1-9. Please provide an ammonia transportation risk analysis that includes potential fatalities and non fatal injuries and an assessment of the potential impacts to public health services from an ammonia accident.

**Response:** Aqueous ammonia will be transported to the project site using U.S. Department of Transportation (DOT) approved tanker trucks. However, the transportation of ammonia, and any other hazardous material, poses a risk of exposure to the surrounding population due to an accidental release caused by a traffic accident involving the delivery vehicle.

An aqueous ammonia leak occurring during delivery or transport of the material to the SFERP storage tank could result in hazardous ambient concentrations in the immediate vicinity of the release. The impact of this accidental release would depend upon the location of the release relative to the public. The possibility of accidental release during delivery depends upon the following factors which are reflected in the accident statistics:

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- Skill of the drivers
- Type of vehicle used for transport
- Traffic conditions or road type

Because of the potential impact on the public, there are extensive regulatory programs in place in the United States and California to ensure safety during the transportation of hazardous materials, see the Federal Hazardous Materials Transportation Law (49 U.S.C. § 5101 et seq.), the US Department of Transportation Regulations (49 C.F.R. Subpart H, § 172-700), and California DMV Regulations on Hazardous Cargo (CCR, Vehicle Code, § 34000). These regulations also address the driver's abilities and experience. Because of these regulations, the CEC staff only focuses on the potential for an incidence after the delivery vehicle has left the main highway.<sup>2</sup> Therefore, the following analysis focuses on the non-highway delivery routes due to the greater potential for accidents to occur on non-highway roads.

#### **Background on Hazardous Material Shipment**

The federal Office of Hazardous Materials Safety (OHMS) reports that about 280,000,000 hazardous material shipments are made by truck per year (Hazardous Materials Shipments, OHMS Report, 1998 - <http://hazmat.dot.gov/pubs/hms/hmship.pdf>, page 9). The hazardous materials transportation incident statistics indicate a total of 11,750 highway incidents occurred in 1997, with 417 serious incidents for all modes of hazardous materials transportation (air, land, and sea). The OHMS defines a serious incident as causing one of the following: a fatality or major injury, closure of a major transportation artery or facility, results in the evacuation of six or more persons, or results in the release of hazardous materials. This year (through June 16<sup>th</sup>), there have been only 10 reported aqueous ammonia releases nationwide where the cargo contained 35 percent ammonia, or less. (<http://hazmat.dot.gov/enforce/forms/ohmforms.htm#incidents>).

#### **Transportation Probability Analysis**

Technical and scientific literature on hazardous materials transportation was reviewed for accident rates in the United States and California in performing this transportation probability analysis for the delivery of aqueous ammonia to the project. The following references were used to prepare this hazardous materials transportation probability analysis:

Davies, P.A. and Lees, F.P. 1992. "The Assessment of Major Hazards: The Road Transport Environment for Conveyance of Hazardous Materials in Great Britain." Journal of Hazardous Materials, 32: 41-79.

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<sup>2</sup> See Hazardous Materials Management section of the Final Staff Assessment for the Contra Costa Power Plant Unit 8 (00-AFC-1), March 2, 2001.

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Harwood, D.W., Viner, J.G., and E.R. Russell. 1993. "Procedure for Developing Truck Accident and Release Rates for Hazmat Routing." Journal of Transportation Engineering. 119(2): 189-199.

Vilchez, J.A., Sevilla, S., Montiel, H., and J. Casal. 1995. "Historical Analysis of Accidents in Chemical plants and in the Transportation of Hazardous Materials." J. Loss Prev. Process Ind. 8(2): 87-96.

National Response Center ([www.nrc.uscg.mil](http://www.nrc.uscg.mil))

Chemical Incident Reports Center, U.S. Chemical Safety Board  
([www.chemsafety.gov](http://www.chemsafety.gov))

National Transportation Safety Board ([www.nts.gov](http://www.nts.gov))

Data presented in the 1992 Davies and Lees study (which uses data from the 1990 Harwood study) identifies the frequency of hazardous materials release during transportation as between 0.06 and 0.19 releases per million miles traveled on well-designed roads and highways. The study presented data for the three dominant road types: urban freeway, rural freeway, and two-lane rural road. The reported frequencies of hazardous materials release during transportation per million miles traveled were 0.06 (urban freeway), 0.14 (rural freeway), and 0.19 (two-lane rural road). The Davies and Lee study also estimated the probability of an incident randomly occurring in an area where a large number of people would be exposed. This analysis estimated that 8.9 percent of such incidents would cause more than 10 fatalities and 1.4 percent would cause more than 33 deaths. These statistics do not include any mitigating effects from meteorological conditions (such as wind) that would help disperse the ammonia, thus reducing the potential impacts.

The City estimates the annual number of ammonia deliveries to be 14 per year. Each ammonia delivery truck will travel approximately 1.2 miles from the Highway 101 off-ramp to the plant site. Therefore, the estimated annual distance the loaded ammonia delivery trucks will travel on this section of roadway is 16.8 miles (1.2 miles x 14 deliveries).

To be conservative in this analysis, the SFPUC selected the two-lane rural road value, which has a higher risk rate than an urban truck route. Using the data presented in Davies and Lees for the reported frequency of a hazardous material transportation-related release of 0.19 releases per million miles of rural road traveled and the estimate that 8.9 percent of the incidents would cause more than 10 fatalities, the risk of an accident causing more than 10 fatalities is 0.017 per one million tanker miles traveled (0.19 releases per million miles x 0.089 accident rate). Since the distance traveled is 16.8 miles per year, the risk of an incident occurring during the year that would result in 10 or more fatalities is 0.017/million miles x 16.8 miles, or 0.28 in one million.

The risk of an accident occurring that would result in more than 33 deaths is even smaller. Using the Davies and Lee data, the probability is 0.19 releases per

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million miles of rural road traveled and the estimate that 1.4 percent of the incidents would cause more than 33 fatalities; the risk of an accident causing more than 33 fatalities is 0.0027 per one million tanker miles traveled (0.19 releases per million miles  $\times$  0.014 accident rate). Since the distance traveled is 16.8 miles per year, the risk of an accident occurring in any year that would result in 33 or more fatalities is  $0.0027/\text{million miles} \times 16.8 \text{ miles}$ , or 0.04 in one million.

The CEC uses a significance threshold of 1 in 100,000 (or 10 in 1,000,000) for a risk of 10 fatalities and a threshold of 1 in 1,000,000 for a risk of 100 fatalities<sup>3</sup>. Both of the project's risk estimates (0.28 and 0.04 in one million) are at least 25 times below these thresholds. Therefore, the risk of exposure to aqueous ammonia during transport to the plant site is not significant. In fact, data from the US Department of Transportation show that the actual risk of a fatality over the past 5 years from all modes of hazardous material transportation (rail, air, boat, and truck) was approximately 0.1 in one million.<sup>4</sup>

- 1-10. Please discuss the cumulative impacts of transportation and storage of hazardous materials in Southeast San Francisco.

**Response:** The City's cumulative impacts analysis for the storage of hazardous materials is set forth in Section 8.12.7 of Supplement A. Transportation impacts are provided in Data Response HM 1-9.

- 1-11. Please discuss the environmental justice implications of transporting, and storing large quantities of hazardous materials in Southeast San Francisco where there is a significant minority and low-income population.

**Response:**

The City is committed to minimizing impacts on the community in Southeast San Francisco, where the SFERP will be located. The City has recognized that Southeast San Francisco is a community of color with relatively high rates of serious respiratory diseases, and that the Southeast San Francisco has been disproportionately impacted by industrial facilities including electric power generation. In this context, the SFERP has been designed to support the objectives of Ordinance 124-01 as set forth in Subsection 4 of Supplement A, including 1) reduction of potential and actual emissions of criteria, toxic and hazardous air pollutants; 2) elimination of the need for existing in-City generation; and 3) mitigation of the adverse social, economic, cultural, environmental and public health impacts for the new generation on the impacted communities in Southeast San Francisco. The City has committed to develop a meaningful PM10 mitigation and community benefits package. Thus, the City is in the process of finalizing a proposal for a community benefits package that prioritizes addressing public health risks in Southeast San Francisco.

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<sup>3</sup> See Hazardous Materials Management section of the Final Staff Assessment for the Contra Costa Power Plant Unit 8 (00-AFC-1), March 2, 2001.

<sup>4</sup> *Ib.*

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The City is prepared to implement a community benefits package even though the public health risks from the transportation and storage of hazardous waste associated with the SFERP are not significant. Subsection 8.12 of Supplement A assesses the potential risks and sets forth proposed mitigation measures associated with the storage and use of hazardous materials at the SFERP. Subsection 8.6.4.3 sets forth the analysis of potential impacts on public health from the storage of hazardous materials at the facility. Subsection 8.6.4.3 indicates that normal use of hazardous materials will not pose significant impacts to public health. It explains further that prior to commencement of facility operations, a risk management plan will be prepared, in accordance with applicable regulations, to identify hazards and predict the areas that may be affected by a release of a regulated substance. The offsite consequence analysis performed indicates that in the event of catastrophic release of ammonia from the complete failure of the storage tank, ammonia concentrations to the north, south and eastern boundaries of the SFERP, which are the boundaries accessible to the public, will not exceed a concentration of 5 ppm. At these concentrations, no public health impacts would be expected. Finally, the risk assessment completed in response to these data requests, indicates that the risks from the transportation of ammonia within Southeast San Francisco (from the highway 101 off-ramp to the project site) are less than significant.

- 1-12. Please provide CCSF recommended lowest level of concern for ammonia exposure.

**Response:** For this application and other proposed power plants in San Francisco, the San Francisco Department of Public Health (DPH) requested that plume modeling be conducted to determine locations that might exceed 25 ppm. This level of 25 ppm is equivalent to the Emergency Response Planning Guideline 1 (ERPG-1) for ammonia. The ERPG-1 levels are defined as the "Maximum airborne concentration below which nearly all individuals could be exposed to up to 1 hour without experiencing other than mild transient adverse health effects". The DPH requested this level to be evaluated because even though the health effects may not occur at this level, significant discomfort and irritation may occur to members of the general public.

Please note that in the Risk Management Plan (RMP) process that the DPH administers for businesses that store extremely hazardous materials, they use ERPG 2 for ammonia (equivalent to 200 ppm). This was adopted from the EPA/Cal-ARP toxic endpoint.

- 1-13. Please discuss the feasibility of a urea based ammonia on demand system for the SFERP and its impact on hazardous materials handling risks.

**Response:** The feasibility of a urea-based ammonia on demand system is discussed in Section 9.6.2 of Supplement A.

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1-14. Will the project use a double walled storage vessel for ammonia storage?

**Response:** No. A single walled steel tank will be used to store the 29% aqueous ammonia. A berm and catch basin will be included to contain any spills up to the entire volume of the tank.

1-15. Please provide the truck accident rate per mile for the entire ammonia transportation route.

**Response:** As noted in the City's objections filed on July 5, 2005, the City believes additional detail evaluation of the transportation route is not warranted; however please refer to Data Response HM 1-9 for information addressing the transportation risk analysis.

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## **Hazardous Waste**

**Background:** In response to CEC staff Data request 184 the applicant has provided a SC/CMS report for the adjacent Muni Site

### **Data Request**

1-16. Please provide a copy of the SC/CMS report for the Muni Site that was provided in attachment WM-184A.

**Response:** A copy of the SC/CMS report (Attachment WM-184A) will be provided with these data responses to Mr. Sarvey. Copies will also be provided to other parties upon request.

1-17. Please prepare and provide a SC/CMS report for the SFERP site.

**Response:** Please refer to the City's objection filed on July 5, 2005. As the city indicated in Data Response Set 3A, #184, considerable data has been collected on the SFERP site and adjacent properties. Prior studies have been the basis for two deed restrictions that address development of the property. These deed restrictions can be found in Supplement A, Appendix 8.13. The City has provided volume one of the Final Site Characterization/Corrective Measure Study and Article 22A Soil Characterization Report. In addition, the City will provide to Mr. Sarvey the laboratory results of spoils sampling during the planned geologic borings. The borings began July 20<sup>th</sup>, and the laboratory results should be available within a month following the completion of the borings. The results in combination with the prior reports adequately document the condition of the SFERP site.

1-18. Please provide an analysis of soil samples and investigate the presence of asbestos contamination of the site.

**Response:** Geological borings will be taken beginning July 20<sup>th</sup> and ending August 5<sup>th</sup>. Laboratory samples will be taken from the drilling spoils and sent to a laboratory for analysis. A summary of the laboratory report will be provided once the results are received. We will include asbestos in the lab analysis.

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## **Water Resources**

**Background:** The applicant proposes to draw water from the San Francisco combined sewer system. While the treatment and cooling system will destroy most bacterial agents in the water chemical residues from nearby industries will not be removed. This may be problematic during dry periods when the sewer system contains primarily industrial waste.

### **Data Request**

1-19. Please provide a list of industries that discharge near the point of extraction for wastewater for the SFREP.

**Response:**

Industrial wastewater discharges are regulated by the SFPUC's Pretreatment Program, which is managed by the Bureau of Environmental Regulation and Management (BERM). The industries listed below are located in the same drainage basin as the SFERP wastewater extraction point and would contribute to the wastewater flow at the point of extraction for the SFERP:

A) The dischargers in the Pretreatment Program for which wastewater samples are collected:

- San Francisco Chronicle printing plant, 2000 Marin Street, San Francisco, CA 94124.
- St. Luke's Hospital, 3555 Cesar Chavez St, San Francisco, CA 94110.
- San Francisco General Hospital, 1001 Potrero Ave, San Francisco, CA 94110.
- Always Open Car Wash, 2560 Marin St, San Francisco, CA 94124.
- Silver Sprouts , 1069 Pennsylvania St, San Francisco, CA 94107.
- Department of Public Works Yard, 2323 Cesar Chavez.

B) Additional businesses that are regulated by the Pretreatment Program but not routinely monitored by wastewater sampling are photo shops and dentists. BERM enforces the Pretreatment Program requirements in these businesses by conducting site inspections to assess waste management, record keeping, and other indications for how the facility is following the required procedures for materials and waste management that affect wastewater. Any hazardous waste disposal requirements are enforced by the Department of Public Health. BERM will perform wastewater sampling if the business's records indicate the proper procedures are not being followed. In addition, BERM samples a photo shop if the shop opts to process its own silver waste onsite, and a dental facility if the facility opts to not install filtration equipment.

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- Rite-Aid One-Hour Photo located at 4045 24th St., has been sampled in the past three years. Sampling is conducted at this business because it processes its laboratory waste on site. It is not feasible for BERM to collect a sample to represent the whole wastewater flow from the building (“end of pipe” flow), which is the normal sampling protocol. Based on its sampling data, BERM has concluded that the whole wastewater flow from the building does not exceed the applicable local limits.
- There are no dental facilities in the drainage basin that have opted out of installing filtration equipment. The dental program is only about a year old, and BERM plans to start site inspections of dental facilities in FY06-07.

1-20. Please provide a list of those industries that have violated wastewater discharge regulations and a description of those violations.

**Response:** See the response to 1-19. As noted in the City’s objections filed on July 5, 2005, the City has provided information for only the industries identified in response to WR1-19 for the past 3 years. See the response to 1-19. “Silver Sprouts” (5<sup>th</sup> bullet above) has had several violations in the past three years. Five instances of pH violations have occurred in the past three years: 2/18/04 (pH=5.3), 10/18/04 (5.2), 11/17/04 (4.6), 11/19/04 (3.9), 11/22/04 (4.3).

1-21. Please explain how the SFERP will prevent polluted discharge from the project from entering the bay when the combined sewer system is overwhelmed by storm water drainage.

**Response:** Please see the City's response to staff Data Request 187. Please note moreover that based on recent discussions with the San Francisco Port Authority, the SFERP Storm water Pollution Prevention Plan (SWPPP) is currently being revised and will be submitted to CEC Staff by mid-August, 2005.

1-22. Please discuss the feasibility of a Zero Liquid Discharge System (ZLD) for the SFERP.

**Response:** A Zero Liquid Discharge (ZLD) system is normally incorporated into a facility design for one of two reasons: the total raw water usage of the plant is to be a minimum or the off-site disposal of the plant wastewater is not allowed. Neither of these rationales support the use of a ZLD system in the case of the SFERP. This is because waste-water that is not diverted for use at the plant would go directly to the City’s Southeast Water Pollution Control Plant for ultimate discharge into the bay. Waste-water from the plant being returned to the sewer system has only changed the location of the sewage in the collection system; it does not increase the overall city system duty.

Moreover a ZLD is very expensive both for capital costs (several million dollars) and for operating costs. The system also occupies a significant amount of area. Peaking plants have the additional operational burden of very unpredictable

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**Survey Set 1A**

wastewater flows which would require careful ZLD operation and management of the wastewater prior to processing.

Using a ZLD system would require the handling of large quantities of solids from the recycled water plant and concentrated slurry from the ZLD system. The additional requirements to minimize wastewater in the recycle water plant and to dispose of the sewage solids would have a major impact on the design and operation of the recycle water plant.

Given the limited benefits and high upfront and operational costs of a ZLD system, it is not appropriate for use at the SFERP.



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## ELECTRONIC PROOF OF SERVICE LIST Revised 5-04-05

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT  
APPLICATION FOR CERTIFICATION,  
DOCKET NO. 04-AFC-1

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I declare that I transmitted the foregoing document via e-mail, or as indicated by first class postal mail, to the above named on the date indicated thereby. I declare under penalty of perjury that the foregoing is true and correct.

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