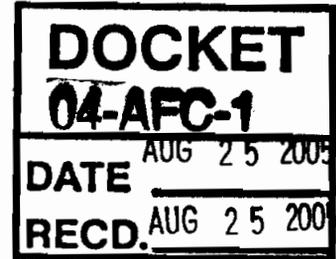




CH2MHILL

CH2M HILL
2485 Natomas Park Drive
Suite 600
Sacramento, CA 95833
Tel 916.920.0300
Fax 916.920.8483

August 25, 2005
184288



Mr. William Pfanner
Siting Project Manager
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814-5504

RE: Informal Data Response, Set 6C
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 Staff's Informal Data Response, Set 6C, in response to Staff's Informal Data Requests dated June 27, 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

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

**INFORMAL DATA RESPONSE,
SET 6C**

**(Responses to Informal Data Requests in the
area of Soil and Water Resources)**

Submitted by
CITY AND COUNTY OF SAN FRANCISCO

August 25, 2005



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

**SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-01)
Informal Data Request Set 6C**

Technical Area: Soil and Water Resources

Authors: Mark Lindley and Vince Geronimo (PWA)

SFERP Authors: Steve Brock

BACKGROUND

In response to Data Request 51, “will serve” letters were provided for Potable Water, Industrial Wastewater and Stormwater Discharge, and Process Wastewater Supply were provided from SFPUC for the original SFERP site location near 23rd Street.

- 6-12 Provide information on the size of the combined sewer mains on Cesar Chavez and Illinois Streets. Also, provide the hydraulic capacity of these combined sewer mains and documentation that these mains can handle the additional flows from maximum wastewater discharge rate (possibly when the treated water storage tank is full) and peak stormwater runoff rates.

Response: The proposed SFERP plant will discharge wastewater into the combined sewer system near the intersection of Illinois and Cesar Chavez streets. Under the new Port of San Francisco stormwater best management practices, the plant’s stormwater will have to be discharged into the bay through the use of vegetated swales. Stormwater from the site will sheet flow easterly to a vegetated swale that will flow northward into the bay. The attached calculations show that the stormwater from the plant site could have been included in the combined sewer flow based on the size of the sewer along Illinois Street.

Under the condition where the recycled water storage tank is full but the recycle water plant is still operating to ensure an active biological system, the recycle system would be run in a turndown mode to 25 percent of the normal throughput. This throughput would have to go directly into the combined sewer. The 25 percent throughput equates to 0.15 MGD (104 gpm or 0.23 cubic feet per second (cps)).

This quantity only represents an addition of 0.15 percent to the flow at the intersection of Illinois Street and Cesar Chavez during a storm event. In the event that the recycle plant had to return 100 percent of its output to the combined sewer, that quantity would only represent 0.62 percent of the system capacity.

The attached hydraulic computations were prepared by the City to demonstrate the capacity at Cesar Chavez and Illinois streets.

**SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
(04-AFC-01)
Informal Data Request Set 6C**

COMPUTATIONS FOR SIZES OF SEWERS

	LOCATION			A Area Acres	T Time		R Rain- fall Rate	C % Run- off	AxC Effective Area	AxCxR Quantity cfs	L Length ft	F/L Grade		Sewer Size		V Velocity ft/s	L/V Time		V ² /2g Velocity Head ft	
	Street	From	To		Min	Sec						Invert	Hyd.	Exist inch	Req'd inch		Min	Sec		
				R	7.14	7	00	2.74	90	Add Flow	23.00									
1	Illinois	22nd	Humbolt	T	7.14	0	59		90	6.43	40.62	492	0.0043	0.0100	30	30	8.4	0	59	1.10
				R	11.70	7	59	2.59	90	Add Flow	24.76									
2		Humbolt	23rd	T	18.84	0	49		90	16.96	68.69	583	0.0160	0.0170	33	33	11.8	0	49	2.16
				R	11.25	8	48	2.47	90	Add Flow	26.69									
3		23rd	24th	T	30.09	0	49		90	27.08	93.58	367	0.0020	0.0041	48	48	7.5	0	49	0.87
				R	9.46	9	37	2.36	90	Add Flow	27.31									
4		24th	25th	T	39.55	1	23		90	35.6	111.33	475	0.0060	0.0018	60	60	5.7	1	23	0.50
				R	4.94	11	00	2.2	90	Add Flow	28.61									
5		25th	26th	T	44.49	1	18		90	40.04	116.70	475	0.0060	0.0020	60	60	6.1	1	18	0.58
				R	19.30	12	18	2.07	90	Add Flow	30.49									
6		26th	Cesar Chavez	T	63.79	1	18		90	57.41	149.33	475	0.0060	0.0018	66	66	6.1	1	18	0.58
				R	2.30	13	36	1.95	90	Add Flow	33.37									
7	Cesar Chavez	Illinois	3rd	T	66.09	0	41		90	59.48	149.35	250	0.0060	0.0019	66	66	6.3	0	39	0.58

New Alternative to add Muni Facilities (13 Acres) + 4 Acres future development
KS 18 Aug 05



**CALIFORNIA
ENERGY
COMMISSION**

1516 Ninth Street
Sacramento, CA 95825-5512
800-822-6228
www.energy.ca.gov

**ELECTRONIC PROOF OF SERVICE LIST
Revised 8-03-05**

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.

John L. Carrier, J.D.
Program Manager
CH2M HILL