Table 8.1B-2.1 (NEW 6/13/03)	
MEGS	
Characterization of Spray Dryer Exhaust	
Baghouse Inlet Loading, lb/hr	83.3
Baghouse Efficiency	99.94%
Total Particulate Emission Rate, lb/hr	0.05
Exhaust Flow, acfm	1,240
Exhaust Temperature, deg F	375
Absolute Humidity, lb water/lb dry gas	0.128
Solid Loading, grains/dscf	0.0091

Table 8.1B-3 (REVISED 6/13/03)
MEGS
Detailed Calculations for Maximum Hourly, Daily, and Annual Criteria Pollutant Emissions

							NOx		SOx		CO		VOC		PM10	
	Base Load			Startup			Base Load	Startup	Base Load	Startup	Base Load	Startup	Base Load	Startup	Base Load	Startup
Equipment	max. hour	hrs/day	hrs/yr	max. hour	hrs/day	hrs/yr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
Gas Turbine 1, baseload	0	21	8395	0	0	0	4.53	0.00	0.51	0.00	6.62	0.00	1.26	0.00	3.00	0.00
Gas Turbine 2, baseload	0	21	8395	0	0	0	4.53	0.00	0.51	0.00	6.62	0.00	1.26	0.00	3.00	0.00
Gas Turbine 1, startups	0	0	0	1	3	365	0.00	20.00	0.00	0.51	0.00	6.62	0.00	1.26	0.00	3.00
Gas Turbine 2, startups	0	0	0	1	3	365	0.00	20.00	0.00	0.51	0.00	6.62	0.00	1.26	0.00	3.00
Spray Dryer	1	24	8760	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
Cooling Tower Number 1	1	24	8760	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
Cooling Tower Number 2	1	24	8760	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00

Table 8.1B-3 (REVISED 6/13/03) (cont.)
Detailed Calculations for Maximum Hourly, Daily, and Annual Criteria Pollutant Emissions

	NOx			SOx			CO			VOC			PM10		
	Max	Max	Total	Max	Max	Total	Max	Max	Total	Max	Max	Total	Max	Max	Total
Equipment	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy
Gas Turbine 1, baseload	0.0	95.1	19.0	0.0	10.6	2.1	0.0	139.0	27.8	0.0	26.5	5.3	0.0	63.0	12.6
Gas Turbine 2, baseload	0.0	95.1	19.0	0.0	10.6	2.1	0.0	139.0	27.8	0.0	26.5	5.3	0.0	63.0	12.6
Gas Turbine 1, startups	20.0	60.0	3.7	0.5	1.5	0.1	6.6	19.9	1.2	1.3	3.8	0.2	3.0	9.0	0.5
Gas Turbine 2, startups	20.0	60.0	3.7	0.5	1.5	0.1	6.6	19.9	1.2	1.3	3.8	0.2	3.0	9.0	0.5
Spray Dryer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.2
Cooling Tower Number 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1
Cooling Tower Number 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1
Total	40.0	310.2	45.3	1.0	24.3	4.4	13.2	317.7	58.0	2.5	60.6	11.1	6.1	146.5	26.73
	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy	lb/hr	lb/day	tpy

Table 8.1B-5 (REVISED 6/13/03)
MEGS
Non-Criteria Pollutant Emissions From Cooling Towers

Pollutant	Water Concentration mg/L	Water Circ rate (gpm)	Tower Drift Rate	1 Tower Emission Rate lbs/hr (each)	2 Towers Emission Rate lbs/hr	1 Tower Annual Emission Rate ton/yr (each)	2 Towers Annual Emission Rate tons/yr	Hourly Emission Rate Per Cell g/sec (each)	Annual Emission Rate Per Cell g/sec (each)
Arsenic	0.036	3,218	0.0010%	5.80E-007	1.16E-006	2.54E-006	5.08E-006	3.65E-008	3.65E-008
Chloride	104	3,218	0.0010%	1.68E-003	3.35E-003	7.34E-003	1.47E-002	1.06E-004	1.06E-004
Chromium VI	0.02	3,218	0.0010%	3.22E-007	6.45E-007	1.41E-006	2.82E-006	2.03E-008	2.03E-008
Sulfate	112	3,218	0.0010%	1.80E-003	3.61E-003	7.90E-003	1.58E-002	1.14E-004	1.14E-004
Vanadium	0.152	3,218	0.0010%	2.45E-006	4.90E-006	1.07E-005	2.15E-005	1.54E-007	1.54E-007
Total =						1.53E-002	3.05E-002		

Table 8.1B-5.1 (REVISED 6/13/03)
MEGS
Non-Criteria Pollutant Emissions From Spray Dryer

Constituent	Treated ZLD Feed Concentation mg/l	Dry Solids % wt	Dryer Emissions lbs/hr	Dryer Emissions tons/yr
Calcium	225	11.347%	5.67E-003	2.48E-002
Magnesium	48	2.421%	1.21E-003	5.30E-003
Sodium	280	14.120%	7.06E-003	3.09E-002
Sulfate	880	44.378%	2.22E-002	9.72E-002
Chloride	169	8.523%	4.26E-003	1.87E-002
Nitrate	264	13.313%	6.66E-003	2.92E-002
Silica	116	5.850%	2.92E-003	1.28E-002
Arsenic	0.036	0.002%	9.08E-007	3.98E-006
Barium	0.348	0.018%	8.77E-006	3.84E-005
Boron	0.4	0.020%	1.01E-005	4.42E-005
Chromium VI	0.02	0.001%	5.04E-007	2.21E-006
Vanadium	0.152	0.008%	3.83E-006	1.68E-005
TDS	1,983	100.000%	0.05	0.22

Table 8.1B-8 (REVISED 6/13/03)
MEGS Quarterly Emission Offset Calculations

Pollutant	Turbine Startup Emission Rate (lbs/hr)	Turbine Baseload Emission Rate (lbs/hr)	Turbine Startup Hours (hrs/yr)	Turbine Shutdown Hours(1) (hrs/yr)	Turbine Baseload Hours (hrs/yr)	Annual Emissions Per Turbine (lbs/yr)	Annual Emissions Both Turbines (lbs/yr)
NOx	20.00	4.53	365	182.5	8212.5	44,495	88,990
VOC	1.26	1.26	365	0	8395	11,069	22,137
PM10	3.00	3.00	365	0	8395	26,280	52,560

Pollutant	Spray Dryer Emission Rate lb/hr	Spray Dryer Operation hours/yr	Spray Dryer Emissions lb/yr
PM10	0.05	8760	438

Pollutant	Facility Annual Emissions(2) (lbs/yr)	NSR Offset Thresholds (lbs/yr)	Net Facility Annual Emissions(3) (lbs/yr)	Facility Quarterly Emissions (lbs/quarter)	Emission Offsets Required 1:0 to 1.0 ratio (lbs/quarter)	Emission Offsets Required 1:5 to 1.0 ratio (lbs/quarter)
NOx	88,990	20,000	68,990	17,248	17,248	25,871
VOC	22,137	20,000	2,137	534	534	801
PM10	52,998	29,200	23,798	5,950	5,950	8,924

Notes

1. This accounts for a 1/2-hour shutdown period associated with each startup.
2. Emissions do not include PM10 emissions for cooling towers which are exempt from permitting.
3. Facility emissions less NSR offset threshold levels.

Table 8.1B-10 (REVISED 6/13/03)

MEGS Emission Offsets Inter-Quarter Distribution (pounds)

NOx	Q1	Q2	Q3	Q4	Sum
Certificate #N-371-2	3,971	10,226	0	17,390	31,587
Certificate #N-372-2	0	9,439	51,165	922	61,526
Certificate #C-538-2	3,584	1,649	4,610	845	10,688
Total ERCs	7,555	21,314	55,775	19,157	103,801
Inter-Quarter Transfer Quantity1	18,395	4,636	(29,824)	6,793	0
ERCs Evenly Distributed	25,950	25,950	25,951	25,950	103,801
Project NOx (above offset threshold)	17,248	17,248	17,248	17,248	68,990
NOx ERCs 1.5:1	25,871	25,871	25,871	25,871	103,486
Balance	79	79	80	79	315
VOC					
Certificate #C-539-1	513	616	819	689	2,637
Certificate #C-455-1	669	1,765	1,586	659	4,679
Certificate #C-432-1	216	684	1,077	949	2,926
Certificate #C-438-1	266	686	1,005	1,062	3,019
Certificate #C-1844-1	1,661	1,640	1,406	1,058	5,765
Certificate #C-130-1	858	1,303	694	560	3,415
Total ERCs	4,183	6,694	6,587	4,977	22,441
Inter-Quarter Transfer Quantity1	1,427	(1,084)	(976)	633	0
ERCs Evenly Distributed	5,610	5,610	5,611	5,610	22,441
Project VOC (above offset threshold)	534	534	534	534	2,137
VOC ERCs 1.5:1	801	801	801	801	3,206
Balance	4,809	4,809	4,810	4,809	19,235
PM10					
Certificate #C-531-5 (SO2)	26,440	17,209	0	8,032	51,681
Certificate #N-374-5 (SO2)	3,000	0	3,000	4,000	10,000
Certificate #S-1955-5 (SO2 partial purch	500	500	500	500	2,000
Total	29,940	17,709	3,500	12,532	63,681
Inter-Quarter Transfer Quantity1	(14,616)	0	11,824	2,792	0
ERCs Evenly Distributed	15,324	17,709	15,324	15,324	63,681
Project PM10 (above offset threshold)	5,950	5,950	5,950	5,950	23,798
SO2 ERCs 2.5:1 (worst case)	14,874	14,874	14,874	14,874	59,495
Balance (worst case)	450	2,835	450	450	4,186
SO2 ERCs 1.5:1 (proposed)	8,924	8,924	8,924	8,924	35,697
Balance (proposed)	6,400	8,785	6,400	6,400	27,984

Note: 1) NOx and VOC offsets may be moved from the 2nd and 3rd quarters to the 1st and 4th quarters pursuant to Rule 2201.4.13.8. PM10 offsets (and SO2 precursors) may be moved from the 1st and 4th quarters to the 2nd and 3rd quarters pursuant to Rule 2201.4.13.7.

Table 8.1B-11 (NEW 6/18/03)
MEGS CEC Mitigation Summary

	Emissions (tpy)				
	VOC	CO	NOx	SOx	PM10
Project Emissions	11.07	57.97	44.50	4.38	26.73
ERC Certificate No.					
VOC C-539-1	1.32				
VOC C-455-1	2.34				
VOC C-432-1	1.46				
VOC C-438-1	1.51				
VOC C-1844-1	2.88				
VOC C-130-1	1.71				
NOx C-538-2			5.34		
NOx N-371-2			15.79		
NOx N-372-2			30.76		
SOx N-374-5				5.00	
SOx C-531-5				25.84	
SOx S-1955-5				1.00	
Totals	11.22	0.00	51.90	31.84	0.00
1:1 Interprecursor SOx->PM10				-26.73	26.73
Net Increase (Decrease)	-0.15	57.97	-7.41	-0.73	0.00
2:1 Interprecursor SOx->PM10				-27.46	27.46
Net Increase (Decrease)	-0.15	57.97	-7.41	0.00	26.00