ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
651 GATEWAY BOULEVARD, SUITE 900
SOUTH SAN FRANCISCO, CA 94080

TEL: (650) 589-1660
FAX: (650) 589-5062
speesapati@adamsbroadwell.com

DANIEL L. CARDOZO
RICHARD T. DRURY
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
SUMA PEESAPATI

OF COUNSEL
THOMAS R. ADAMS
ANN BROADWELL

SACRAMENTO OFFICE

1225 8th STREET, SUITE 550
SACRAMENTO, CA 95814-4810
TEL: (916) 444-6201
FAX: (916) 444-6209

July 23, 2004

VIA MAIL AND E-MAIL

Dr. James Reede, Project Manager
California Energy Commission
MS-15
1516 Ninth Street
Sacramento, CA 95814 - 5512

Re: Riverside Energy Resource Center Project (04-SPPE-01) – Preliminary Comments (Construction-Related Air Quality Impacts)

Dear Dr Reede:

As you requested, California Unions for Reliable Energy (CURE) submits this preliminary set of comments on the Draft Initial Study ("DIS") for the Riverside Energy Resources Center. Although comments on the DIS are not due until July 28, 2004, we put forth a substantial effort to complete this piece of our comments early to allow staff adequate time to understand and address our concerns. These comments will be incorporated in the complete set of comments we submit next week.

These comments consist of a Word file and an Excel file.

Please contact us if you have any questions. Thank you in advance for your careful consideration of our comments.

Sincerely,

Suma Peesapati

1554-031b

SP:lb

Cc: Proof of Service List

Riverside Energy Resource Center Project
(Docket No. 04-SPPE-01)
CURE Preliminary Comments on Draft Initial Study

AIR QUALITY

I. Construction Emissions

The Draft Initial Study ("DIS") concludes that "with appropriate mitigation the proposed RERC project will not result in significant air quality impacts." (DIS, p. 4-46.) The DIS finds that "residential land uses may experience short-term adverse air quality impacts" from construction emissions but concludes that "through the implementation of the suggested mitigation measures and Conditions of Exemption during construction, it is assumed that the project would not result in any significant air quality impacts." (DIS, p. 4-45.)

This conclusion is incorrect for two reasons. First, the DIS relies on the Applicant's construction emissions estimate, which, on the whole, significantly underestimates emissions (although one of the errors actually *over*estimates emissions). Second, only one of the mitigation measures proposed in the DIS actually reduces the construction emissions calculated by the Applicant. All other mitigation measures were either already assumed when the Applicant calculated the emissions estimates or apply to emission categories that were not included in the Applicant's emission estimates.

When these errors are corrected, emissions associated with Project construction remain significant despite the mitigation proposed by the DIS. Some of the following issues have previously been addressed in CURE Data Requests Set No. 4 and are repeated below. We provide a summary of emissions and revised calculations at the end.

I.A Maximum Daily Construction Emissions Are Underestimated

I.A.1 Silt Content

The Applicant estimates fugitive dust emissions during construction based on equations contained in the CEQA Handbook published by the South Coast Air Quality Management District ("SCAQMD"). (SCAQMD 04/93[1]). The magnitude of

[1] South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, Tables A9-9-A through A9-9-G, pp. A9-96 through A9-9-101.

emissions calculated with these equations for three of the fugitive dust generating activities, *i.e.* vehicle travel on unpaved roads, dirt pushing/bulldozing operations, and wind erosion, depend on the silt content of the surface material. Rather than plugging into the equations the *site-specific* silt content provided in the Project's geotechnical reports, the Applicant uses *generic* silt content values from various sources. This substantially understates the actual emissions.

For vehicle travel on unpaved roads, the Applicant assumed a mean silt content of 8.5 percent (from a range of 0.56 to 23 percent) for construction site scraper routes based on U.S. EPA's AP-42, Section 13.2.2 for unpaved roads. For dirt-pushing/bulldozing operations and wind erosion, the Applicant used a mean silt content of 6.9 percent (from a range of 3.8 to 15.1 percent) for bulldozing overburden at western surface coal mines determined from U.S. EPA's AP-42, Section 11.9. These selected silt contents are considerably lower than the actual silt content determined at the site in two geotechnical investigations.

The Applicant commissioned 29 exploratory borings across the site and an additional 33 backhoe excavation trenches at selected locations around the proposed location of the combustion turbines, cooling towers, transformers, and sumps. (LOR 1/04[2] and LOR 05/04[3].) Results from these borings and trench excavations show that the silt content in topsoil and underlying fill at the site varies from 15 to 40 percent with an average of 28.3 percent,[4,5] substantially higher than the 6.9 to 8.5 percent used in the Applicant's emission estimates. (*See* attached Table 'Silt Content in Topsoil and Fill at Riverside Energy Resource Center Site'.)

An accurate calculation should use the specific silt content measured at the site, rather than generic silt values derived from other sites.

I.A.2 Watering Control Efficiency

We previously pointed out that the Applicant's assumptions for fugitive dust suppression by watering the site are unrealistic. (CURE Data Requests 65–68.) For

[2] LOR Geotechnical Group, Inc., Geotechnical Investigation, Acorn Generating Project, Northern Terminus of Acorn Street, Riverside, California, Project No. 61833.1, January 21, 2004.

[3] LOR Geotechnical Group, Inc., Results of Additional Subsurface Analysis, Acorn Generation Project, Riverside, Project No. 61833.12, California, May 21, 2004.

[4] Average silt content from 6 boring logs and 33 trenching logs for topsoil and fill: 28.3 percent; 23 of the boring logs did not include topsoil or fill.

[5] CURE's Data Requests Set No. 4 assumed an average silt content of 28.6 percent based on the 33 trenching logs for topsoil and fill only.

example, the Applicant assumed a watering control efficiency of 90 percent for fugitive dust emissions from onsite vehicle travel on unpaved roads. Staff in the DIS agreed that this control efficiency is "very aggressive." (DIS, p. 4-35.)

For dirt pushing/bulldozing operations and dirt loading/handling, watering appears to also have been assumed as a control measure when calculating emissions because of a moisture content of 15 percent was used, which is substantially higher than the documented level of moisture content of the soil on the Project site. Specifically, a geotechnical assessment conducted in November 2003 measured moisture content in topsoil and fill ranging from about 1.3 percent to 2.5 percent. (LOR 1/04, Appx. B, boring logs.) Since the moisture content chosen by the Applicant to calculate fugitive dust emissions assumes watering of the site, adding additional reductions of dust would double count the effectiveness of water.

In addition, it is unlikely that watering of the site will increase the moisture content of the surface material to 15 percent. The Applicant's fugitive dust emission estimates for dirt pushing/bulldozing operations and dirt loading/handling, as used in the DIS are therefore underestimated.

Further, vehicle miles traveled per day by the water truck appear to be too low because of a decimal point error. According to the Applicant's emission estimates, the water truck travels the site four times daily for 45 minutes each over a distance of only 0.2625 mile or 1,386 feet per trip during Project excavation. (*See* attached Table 'On-site Vehicle Travel on Unpaved Roads.') These times and distances would result in a vehicle speed of 0.35 mph, which is an unreasonable assumption.[6] It appears that the Applicant made an order of magnitude mistake when calculating the vehicle miles traveled "VMT") per trip. The Applicant calculated vehicles miles traveled per trip for the water truck as 0.35 mph × 0.75 hours (45 minutes), yet indicated a mean vehicle speed of 3.5 mph. (*See* spreadsheet 'Site Fugitive November Earthmov', cells E14 and I14.[7])

Further, water trucks typically have spray patterns with a reach of 35 to 50 feet; some high-pressure equipment can reach over 100 feet on both sides.[8] It is unlikely that four trips of 1,386 feet each would ensure that the entire area under excavation is continuously watered. However, assuming a mean vehicle speed of 3.5 mph and assuming 45 minutes of continuous watering would result in an increase

---

[6] 0.2625 miles per trip / 0.75 hours = 0.35 mph

[7] Contained in the Applicant's revised construction emission estimates, file '2248.2201xls3b - Nov.Construction equipment and Emissions.xls' provided June 30, 2004.

[8] *For example*, http://www.klein-tanks.com/spray%20first%20page.htm, accessed July 21, 2004.

in the distance traveled by the water truck to 2.625 VMT/trip, which is a more reasonable assumption of average truck speed needed to cover the site. Because either VMT/trip or vehicle speed are underestimated, the DIS further underestimates fugitive dust emissions.

I.A.3 Unpaved Roads

The emissions estimate for vehicle travel on unpaved roads contains an error, which *over*estimates fugitive dust emissions by about 50 percent. The Applicant calculated fugitive dust PM10 emissions associated with delivery trucks based on an equation found in SCAQMD's CEQA Handbook. This equation includes a factor for silt loading of the streets. The Applicant calculated this silt loading value based on an assumption of 5 percent local, 5 percent collector, and 90 percent freeway with silt loading values allegedly found in SCAQMD's CEQA Handbook, Table A-9-C-1. However, comparison with this Table shows that different values have been used, which results in a much higher silt loading and consequently in much higher fugitive dust emissions from vehicle travel on unpaved roads than suggested by the SCAQMD CEQA Handbook. The Applicant calculated a silt loading of 0.1348 ounces per square yard ("oz/yd^2")[9] instead of a silt loading of 0.0041 oz/yd^2.[10] Total fugitive dust emissions associated with vehicle travel on unpaved roads, *i.e.* 38.8 lb/day instead of 110.9 lb/day, are therefore overestimated by a factor of almost three.

I.A.4 Engineered Fill

The Project's geotechnical report indicates that fill material at the site will have to be replaced with a compacted engineered fill. Existing fill can likely be reused, provided it does not contain any organic material. (LOR 1/04, p. 22.) The DIS is silent on whether fugitive dust and combustion exhaust emissions from excavating existing fill and replacing it with an engineered fill were factored into the emission estimates.

Emission sources include fugitive dust emissions as well as combustion exhaust emissions from loading the fill material into trucks, unloading onto

---

[9] Applicant's calculation of silt loading: local (1.4 oz/yd^2 × 0.05) + collector (0.9 oz/yd^2 × 0.05) + freeway (0.022 oz/yd^2 × 0.9) = 0.1348 oz/yd^2; corresponding daily emissions for vehicle travel of unpaved roads: 0.77 × ((silt loading × 0.35)^0.3) × 360 VMT/day = 110.9 lb/day.

[10] Calculation of silt loading based on SCAQMD's CEQA Handbook, Table A-9-C-1: local (0.04 oz/yd^2 × 0.05) + collector (0.03 oz/yd^2 × 0.05) + freeway (0.00065 oz/yd^2 × 0.9) = 0.0041 oz/yd^2; corresponding daily emissions for vehicle travel of unpaved roads: 0.77 × ((silt loading × 0.35)^0.3) × 360 VMT/day = 38.8 lb/day.

temporary storage piles, wind erosion from temporary storage piles, loading from temporary storage piles onto trucks, unloading the fill at the final destination, removal of organic materials, and spreading and compacting of fill. The Applicant's emission calculations as used in the DIS, for example, do not include any drop emissions, which would be significant in this type of operation.

I.A.5 Fuel Consumption Of Grading/Excavating Equipment

The geotechnical report concluded that "the bulk of the material at the site is rippable to the proposed depths if standard heavy-duty grading equipment is used, such as single shanked D-8 dozers and larger." (LOR 05/01, p. 3.) However, the Applicant calculated emissions for much smaller equipment with lower fuel consumption, inadequate for grading operations at the site according to the geotechnical report.

For example, the Applicant assumed a bulldozer of the Caterpillar ***D-6*** series instead of the recommended ***D-8*** or larger series. Based on hourly fuel consumption tables published by Caterpillar, the D-6 series has a fuel consumption of 3.5 to 6.5 gallons per hour ("gal/hour") at medium load,[11] consistent with the Applicant's assumption of 5.5 gal/hour. In contrast, fuel consumption at medium load in the category D-8 is 7.5 to 10.0 gal/hour. Fuel consumption for larger series, D-9 through D-11, range from 12.5 to 29.5 gal/hour at medium load. Even at low load, which is based on considerable idling or travel with no load, fuel consumption for the D-8 series ranges from 6 to 7.5 gal/hour. (Caterpillar, 10/00[12], p. 22-13.)

For the motor grader, the Applicant assumed a fuel consumption of 5.0 gal/hour. Caterpillar reports fuel consumption for medium-sized motor graders at high load[13]—representative for the grading phase—on the order of 5.5 to 8.5 gal/hour. Fuel consumption for larger motor graders at high load ranges from 7.5 to 19.4 gal/hour. (Caterpillar, 10/00, p. 22-14.)

Clearly, the assumption of smaller equipment, inadequate for grading the Project site, considerably underestimates fuel consumption and consequently combustion emissions. Revising fuel consumption for the bulldozer and motor

---

[11] Medium load represents production dozing, pulling scrapers, and most push-loading; agricultural drawbar work at full throttle but not always lugging machine; some idling and some travel with no load. (Caterpillar 10/00, p. 22-13.)

[12] Caterpillar Performance Handbook, Edition 31, Caterpillar, Peoria, IL, October 2000.

[13] High load represents ditching, fill spreading, spreading base material, ripping, heavy road maintenance, and snow plowing. (Caterpillar 10/00, p. 22-14.)

grader to more realistic values considerably increases emissions as shown in the inset table below.

Equipment		Fuel Consumption (gal/hour)	Emissions NOx (lb/day)	CO (lb/day)	ROG (lb/day)	PM10 (lb/day)
Bulldozer	DIS	5.5	9.07	2.24	0.60	0.44
	Caterpillar (10/00)	8.75	10.61	7.22	1.09	0.97
	Difference	**3.25**	**1.54**	**4.98**	**0.49**	**0.53**
Motor Grader	DIS	5.0	9.07	2.24	0.60	0.44
	Caterpillar (10/00)	7.0	22.43	22.14	4.27	3.04
	Difference	**2.0**	**13.36**	**19.90**	**3.67**	**2.60**

Other equipment for which assumed fuel consumption appears to be unreasonably low are the trencher and loader with only 2.0 and 2.5 gal/hour. The emissions inventory for all equipment should be revised to reflect the type of equipment required for grading operations at the site.

I.A.6 Offsite On-road Travel

The DIS calculates criteria pollutant emissions associated with on-road vehicle combustion emissions using the EMFAC 2002 model and reflect South Coast fleet-weighted average emission factors. Emission rates were determined for light-duty passenger vehicles, light-duty trucks, and heavy-duty diesel trucks by dividing total daily basin-wide emissions from the EMFAC2002 BURDEN report by the number of basin-wide vehicle miles traveled ("VMT"). (Application, revised Air Quality section, p. 86.) The calculations presented in Appendix 6.1-D contain several calculation and rounding errors, which lead to an underestimate of emissions.

First, the Applicant used a pen to circle results on the EMFAC BURDEN report and a calculator to calculate the results, which resulted in several calculation and rounding errors. For example, the Applicant circled the VMT and criteria pollutant emissions for each vehicle class on EMFAC's BURDEN output with a pen. In one instance, the hand-drawn line circling the heavy-duty diesel truck CO emissions on the EMFAC printout goes through the first number which makes the number look like 19.34 ton/day, when in fact it is 39.34 ton/day. The Applicant proceeded to calculate the emission factor for CO from heavy duty-diesel truck of based on 19.34 ton/day, which underestimated CO emissions by a factor of two.[14]

The NOx emission factor calculated for heavy-duty trucks also contains a substantial calculation error. Instead of the 0.0380 pounds per VMT ("lb/VMT") reported in the Application, the correctly calculated emission factor is 0.0395 lb/VMT.[15] In other instances, the emission factors are rounded incorrectly. Further, the Application arbitrarily used four or five significant digits for the calculated emission factors, emphasizing the importance of using a spreadsheet, which defers any rounding to the end of the calculation. The inset table below summarizes calculation and rounding errors.

Vehicle Type **Source**	**VMT/ (1,000 vehicles-day)**	**Unit**	**CO**	**NOx**	**PM10 Exhaust**	**PM10 Tire Wear**	**PM10 Total**
Heavy-duty Trucks							
BURDEN printout	13,522						
BURDEN printout		(ton/day)	39.34	267.05			5.26
Handwritten on BURDEN printout		(lb/VMT)	**0.0029**	**0.0380**			**0.00079**
Correct value		(lb/VMT)	**0.0058**	**0.0395**			**0.00078**
Light-duty Passenger Cars							
BURDEN printout	197,662						
BURDEN printout		(ton/day)				4.47	
Handwritten on BURDEN printout		(lb/VMT)				**0.00004**	
Correct value		(lb/VMT)				**0.00005**	
Construction Worker Vehicle (50% Light-duty Diesel Trucks and 50% Light-duty Passenger Cars)							
BURDEN printout	147,405						
BURDEN printout		(ton/day)	1,153.85		2.38		
Handwritten on BURDEN printout		(lb/VMT)	**0.01635**		**0.000035**		
Correct value		(lb/VMT)	**0.01636**		**0.000034**		

[14] (19.34 ton/day) / (13,522,000 VMT/day) × (2,000 lb/ton) = 0.0029 lb/VMT;
(39.34 ton/day) / (13,522,000 VMT/day) × (2,000 lb/ton) = 0.0058 lb/VMT.

[15] (267.05 ton/day) / (13,522,000 VMT/day) × (2,000 lb/ton) = 0.0395 lb/VMT.

I.A.7 Construction Schedule

The Applicant's emission estimates are based on an 8-hour construction schedule while the DIS allows a 12-hour per day schedule during site mobilization, ground disturbance and grading activities and even authorizes "[s]hort excursion to this twelve-hour per day schedule." (DIS, p. 4-36, and AQ-C5, pp. 4-49/50.) The DIS states that the Applicant modeled construction emission for 8 hours of construction per day and acknowledges that "[a] significant increase to this schedule, under most cases, could significantly increase the quantity of daily emissions of dust and significantly increase the local impacts." (DIS, p. 4-36.)

The DIS then proceeds to state that the recommendation to limit construction to between 7 am to 7 pm on weekdays is "necessary to mitigate the maximum 24-hour PM10 construction impact potential to levels below the significance threshold." (DIS, p. 4-36.) This statement is baffling. The construction emissions were calculated for eight hours only. The construction emissions are close to the SCAQMD's CEQA emission significance thresholds for construction for both NOx and PM10. The significance thresholds for NOx and PM10 are 100 and 150 lb/day, respectively, and construction emissions during the grading phase were estimated at 80 lb/day NOx and 136 lb/day PM10. Increasing the construction schedule from 8 hours to 12 hours would increase maximum daily emissions from the Project by about 50 percent, which would result in greatly exceeding both NOx and PM10 thresholds. The dispersion modeling for 24-hour and annual PM10 impacts was also performed for 8 hours, specifically from 6 am to 2 pm, and showed the SCAQMD local significance threshold of 10.4 $\mu g/m^3$ at the fenceline was exceeded. Increasing the construction schedule to 12 hours/day would exceed the threshold even farther from the fenceline.

Consequently, even ignoring the Applicant's calculation errors, it appears that "limiting" construction to between 7 am and 7 pm does not prevent, but actually ensures that the construction emission significance thresholds as well as ambient air quality standards and SCAQMD's local PM10 concentration significance threshold will be exceeded.

I.B Mitigation Measures Are Inadequate And/Or Not Applicable

In addition to requiring an on-site air quality construction manager and a construction mitigation plan, the DIS proposes 14 mitigation measures for fugitive dust control and five mitigation measures to control diesel exhaust emissions from onsite construction equipment. (DIS, pp. 4-47/49.) (*See* attached Table "Mitigation Measures".) However, only one of these proposed mitigation measures has the potential to effectively decrease emissions from the amounts estimated. All other mitigation measures are already built into the assumptions for the Applicant's construction emission estimates or they apply to emissions that are not included in the emission estimates. Therefore, the suggested mitigation measures will not decrease NOx and PM10 emissions to below significance thresholds. (*See* attached Table 'Efficacy of Proposed Mitigation Measures To Reduce Emission Estimates.')

I.B.1 Measures Address Emissions That Were Not Included In Emission Estimates

A number of proposed mitigation measures (AQ-C3d, e, f, g, h, and j) address fugitive dust emissions from trackout and runoff. (DIS, pp. 4-47 to 4-49.) Emissions from trackout and runoff were not included in the Applicant's emission estimates. Likewise, mitigation measure AQ-C3l (covering trucks or wetting materials that are loaded into trucks), addresses fugitive dust emissions that were not included in the Applicant's emission estimate. Consequently, these mitigation measures, while effective in reducing actual emissions due to trackout, runoff, and emissions from loaded trucks have no effect on reducing the emission estimate provided by the Applicant and included in the dispersion modeling.

I.B.2 Measures Already Included In Emission Estimates

The DIS proposes a number of mitigation measures that were already assumed in the Applicant's emission estimates. Therefore, the imposition of these measures does not result in any additional reduction of Project's significant air quality impacts. Instead, the mitigation would be double-counted.

Mitigation measure AQ-C3a addresses watering of the project and linear construction sites, which potentially control fugitive dust emissions from vehicle travel on unpaved roads and dirt pushing/bulldozing operations as well as dirt loading/handling. As discussed in Comment I.A.2 above, the Applicant's emission estimate already assumed a watering control efficiency of 90 percent for unpaved roads. Further, the calculations of fugitive dust emissions from dirt pushing/bulldozing operations and dirt loading/handling assume a topsoil moisture content of 15 percent, considerably higher than the typical moisture content observed at the site, and, thus, de facto watering for dust control. Thus, watering will not result in an *additional* 90 percent control.

Mitigation measures AQ-C3b and c limit vehicle speed on site to 15 miles per hour ("mph"), which potentially addresses fugitive dust emissions from vehicle travel on unpaved roads. The Applicant's emission estimate already assumes vehicle speeds of less than 15 mph, specifically 3.5 mph for the dump trucks and water trucks and 7 mph for the service and delivery trucks as well as crew and visitor vehicles. (As discussed in Comment I.A.2 above, the watering truck appears to travel at a speed of less than 1 mph.)

Mitigation measure AQ-C3k, covering or treating soil storage piles and disturbed areas that remain inactive for more than 10 days, does not provide wind erosion control for maximum daily emissions before the piles and disturbed areas are covered.

Mitigation measure AQ-C3n requires that construction activities that may cause fugitive dust emissions in excess of the visible emission limits shall cease when the wind speed exceeds 25 mph *unless* water, chemical dust suppressants, or other measures have been applied. This measure is ineffective for two reasons. First, the measure allows continuance of construction activities if water is applied, which negates the mitigation measure. Second, the Applicant's construction emission estimates are based on typical wind speeds and do not include estimates for times when wind speed exceeds 25 mph, which could occur on the worst-case day.

I.B.3 Applicable Measure

The only mitigation measure that has the potential to reduce emissions beyond what was included in the emissions estimate is measure AQ-C3m. This measure addresses control of fugitive dust emissions caused by wind erosion using windbreaks, watering, chemical dust suppressants, and vegetation. The Applicant's emission estimate for fugitive dust emissions from wind erosion does not already include any control efficiency due to the proposed watering. The SCAQMD CEQA Handbook proposes a watering control efficiency of 34 to 68 percent for watering a construction site at least twice daily. (SCAQMD CEQA Handbook, p. 11-15.) The Handbook further cautions to use the lowest number given if project-specific efficiency is unknown.

I.B.4 Mass Emissions Remain Significant After Mitigation

The comments above demonstrate that the Project construction emissions inventory presented in the DIS considerably underestimates actual construction emissions. The Applicant provided revised construction emission estimates with file '2248.2201xls3b - Nov.Construction equipment and Emissions.xls' on June 30, 2004. We modified this file as summarized below. The cited spreadsheets in the following list refer to our revised file (excel files and printouts attached),which will be submitted electronically as file '2248.2201xls3b - Nov.Construction equipment and Emissions – CURE rev.xls').

Onsite and transmission line fugitive dust emissions:

- Vehicle travel on unpaved roads: silt content of 28.3 percent; watering control efficiency of 85 percent (*see* Comments I.A.1 and I.A.2 and spreadsheet 'Site Fugitive November Earthmov')
- Dirt pushing/bulldozing: silt content of 28.3 percent (*see* Comment I.A.1 and spreadsheet 'Site Fugitive November Earthmov')
- Wind erosion: silt content of 28.3 percent; watering control efficiency of 68 percent (conservative upper end of range—34 to 68 percent—recommended by SCAQMD CEQA Handbook) (*see* Comments I.A.1 and I.A.2 and spreadsheet 'Site Fugitive November Earthmov')
- Travel on paved roads: paved road silt content of 0.0041 oz/yd^2 (*see* Comment I.A.3 and spreadsheet 'Site Fugitive November Earthmov')
- Construction equipment combustion emissions, unpaved road travel fugitive PM emissions, grading/bulldozing fugitive PM emissions, earth loading fugitive PM emissions: construction schedule of 12 hours instead of 8 hours (*see* Comment I.A.8 and spreadsheets 'Site Total 12 hours' and 'Line Total 12 hours'); adjusted by the ratio of 12 hours/day over 8 hours/day.

On-road combustion emissions:

- Emission factors for off-site on-road vehicle travel : corrected as discussed in Comment I.A.7 (*see* spreadsheets 'Hwy Emissions' and 'Revised Hwy Emission Factors')

The following inset table summarizes estimates for construction emissions if only the above few parameters in the Applicant's emissions inventory are adjusted to correct just some of the errors described above.

	Construction Emissions			
	NOx (lb/day)	**CO** (lb/day)	**ROG** (lb/day)	**PM10** (lb/day)
On-site Emissions	90.44	45.74	8.41	143.57
On-road Emissions	20.71	60.99	6.61	47.10
Transmission Line	22.70	18.30	2.71	2.44
Total Emissions	**133.85**	**125.03**	**17.73**	**193.11**
SCAQMD CEQA Threshold of Significance	100	550	75	150
Significant?	**YES**	**NO**	**NO**	**YES**

The construction emissions summarized in the above table present a low estimate. Actual emissions are likely considerably higher for a number of reasons. First, we made no adjustment for the moisture content of 15 percent, the fuel consumption of construction equipment, or the distance traveled by the water truck each trip as assumed by the Applicant. (*See* Comments I.A.2 and I.A.7.) Second, we assumed the upper end of the recommended range for watering control efficiency for paved roads of 85 percent and of 68 percent for wind erosion. It is unlikely that such high control efficiencies can be achieved by watering the site with one water truck four times a day. (*See* Comment I.A.2.) Third, the estimates do not include emissions from moving engineered fill nor do they include trackout and runoff emissions or idling emissions. (*See* Comments I.A.4, I.A.5, and I.B.1.)

I.B.5 Ambient Air Quality Impacts Remain Significant

Even ***without*** the adjustments discussed in Comment I.A, the DIS acknowledges that "construction 24-hour and annual arithmetic PM10 impacts exceed the ambient air quality standards" and the SCAQMD CEQA construction concentration significance threshold of 10.4 $\mu g/m^3$ at the fenceline. Specifically, the DIS estimates that total construction 24-hour Project impacts for PM10 are nearly 17 $\mu g/m^3$ at the fenceline. (DIS, p. 4-33)

Given that total construction 24-hour Project impacts for PM10 are 17 $\mu g/m^3$ at the fenceline, it is likely that PM10 impacts will be greater than 10.4 $\mu g/m^3$ at the nearest residential receptor, which is only a quarter of a mile from the Project site. (DIS, p. 11-3.) As discussed in Comment I.A above, PM10 impacts are likely considerably higher and therefore even less likely to dissipate to a less than significant level at the nearest residential receptor.

STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of: The Application for Certification for the CITY OF RIVERSIDE PUBLIC UTILITIES RIVERSIDE ENERGY RESOURCE CENTER	Docket No. 04-SPPE-1

PROOF OF SERVICE

I, Lionel Brazil, declare that on July 23, 2004, I deposited copies of the attached

COVER LETTER TO DR. REEDE & COMMENTS ON DRAFT INTIAL STUDY FROM THE CALIFORNIA UNIONS FOR RELIABLE ENERGY

in the United States mail at South San Francisco, California, with first class postage thereon fully prepaid and addressed to the following:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 04-SPPE-01
DOCKET UNIT MS-4
1516 Ninth Street
Sacramento, CA 95814-5512
(Original + 13 copies)

And via email to
docket@energy.state.ca.us

Stephen H. Badgett
Utilities Assistant Director
Riverside Public Utilities
3900 Main Street
Riverside, CA 92522

And via email to
sbadgett@ci.riverside.ca.us

Robert B. Gill
Principal Electrical Engineer
Riverside Public Utilities
3900 Main Street
Riverside, CA 92522

And via email to
rbg@ci.riverside.ca.us

Dave Tateosian, P.E.
Project Manager
Power Engineers, Inc.
P.O. Box 2037
Martinez, CA 94553

And via email to
dtateosian@powereng.com

Kevin L. Lincoln
Environmental Project Manager
Power Engineers, Inc.
3940 Glenbrook Drive, Box 1066
Hailey, Idaho 83333

And via email to
klincoln@powereng.com

Kate Kramer
CA Department of Fish & Game
4775 Bird Farm Road
Chino Hills, CA 91709

Milasol Gaslan
Santa Ana Regional Water Quality

John Yee and Ken Coats
South Coast Air Quality

Control Board
3737 Main Street, Suite 500
Riverside, CA 92501

Guenther Moskat, Chief
Planning & Environmental Analysis Section
Department of Toxic and Substances Control
1001 I Street, 22nd Floor
P.O. Box 806
Sacramento, CA 95812-0806

Dr. James Reede, Project Manager
California Energy Commission
MS-15
1516 Ninth Street
Sacramento, CA 95814 - 5512
And via email
Jreede@energy.state.ca.us

Management District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Allan J. Thompson, Esq.
Attorney for Applicant
21 C Orinda Way #314
Orinda, CA 94563

And via email to
allanori@comcast.net

I declare under penalty of perjury that the foregoing is true and correct. Executed at South San Francisco, California, on July 23, 2004.

____
Lionel Brazil