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Workshop Issues for Air Quality and GHG Emissions

November 13th Workshop Topics

1) SB 1368 EPS Calculation Methodology

2) Discussion of Applicant Comments on PSA/DEIS

3) Questions Regarding PSA/DEIS/PSA Workshop Responses (Supplemental Response Document, including the H&M balance non-confidential questions)

November 20th Workshop Topics

1) Summary of November 13th Meeting Topics

2) Savage Wasco SEA Questions

3) Visible/Thermal Plume Questions

4) Questions Related to Confidential Filing (public non-confidential summary of discussion if there is any)

SB 1368 EPS Calculation Methodology Discussion Topics

Applicant Whitepaper (TN 201026) Notes

1) Whitepaper substantially changes the applicant's EPS calculation approach from the previous approach presented, and circumvents the actual purpose and intent of SB 1368 to support AB 32 through the reduction of GHG emissions from the power sector.
2) The project is not a combined cycle project alone, it is an IGCC. There is a difference between a lifecycle analysis and analyzing the actual proposed project. The whitepaper completely neglects the actual project type.
3) Assumption regarding PPA with IOU is unsubstantiated without the actual PPA. We have to assume CEC or CPUC may determine compliance with the EPS.
4) Regardless of the final agency with compliance responsibility, the CEC and CPUC are working towards identifying a common methodology approach for this project that considers the project type (IGCC project with CCS).
5) Whitepaper assumes CO_2 formed in the gasifier is not within the EPS calculation. The regulations allow the incorporation of CCS in the EPS calculation but do not specify/require when the carbon needs to be separated (pre- or post-combustion).
6) The use of third-party entities to complete necessary project activities (ASU and carbon sequestration) does not change the EPS calculation requirements.
7) The USEPA NSPS regulation has no bearing whatsoever on the SB 1368 EPS.
8) Definition of what is not associated with the power block in this whitepaper isn't coherent. For example, based on the whitepaper's definitions/concept theory the EPS is met regardless of whether any CO_2 is separated and sequestered as that process is outside of the combined cycle CT/HRSG.
9) Whitepaper net generation values do not appear to match values previously presented in the PSA information request responses.
10) In summary, staff rejects the whitepaper argument related to what is covered for the determination of emissions and net generation per SB 1368 EPS calculations.

Basic Definitions/Concepts for Discussion

1) Ancillary – Includes secondary processes that could be removed without directly affecting the technical viability of the power generation. Ancillary process emissions are not included in the EPS calculations, and their power consumption is assumed to be part of the net generation.
2) Commercial or Industrial Process – Is a process onsite or at a host site that is not necessary for the power generation process.
3) Geologic Sequestration – Is the actual proposed process that will be used to sequester carbon emissions from the project, not a theoretic sequestration technique that is not actually proposed.
4) Net Generation - The EPS calculations use net generation to the grid and generation used in onsite or host site commercial/industrial facilities. It does not include onsite power consumption not used at other commercial/industrial facilities.

Areas for Potential Compromise

1) Fertilizer Manufacture – Including emissions and power consumption related to fertilizer processes and shared resources such as the gasification process, gas treatment and separation processes, the ASU, etc.
2) Geologic Sequestration – Possibly including the differential for emissions and power consumption necessary for oil recovery if EOR was done without HECA.

SB 1368 Emissions/Power Consumption Methodology for HECA Project Sources

	Emissions			Power Consumption		
HECA Sources	**In**	**Out**	**Apportion**	**Subtracted**	**Ignored**	**Apportion**
Onsite Emission Sources						
Power Unit				S, A		
CTG/HRSG	S, A					
Feedstock Dryer	S, A					
Gasifier, Gas Treat, CO_2 Comp				S	A	
CO_2 Vent	S	A				
Flares	S	A				
Thermal Oxidizer	S	A				
Ancillary					S, A	
Emergency Engines		S, A				
Miscellaneous/Common				S, A (PART)	A (PART)	
Auxiliary Boiler	S	A				
Fugitives	S	A				
ASU				S	A	
Fertilizer Manufacturing				S	A	
Ammonia start-up heater	S	A				
Urea absorber vents	S	A				
Onsite Transportation						
On-site trucks		S, A				
On-site trains		S, A				
Offsite Emission Sources						
Off-site workers commuting		S, A				
Off-site trucks		S, A				
Off-site trains		S, A				
Wasco Coal Unloading		S, A				
OEHI Emission Sources						
Onsite Emission Sources						
CO_2 Recycle Sources						
CO_2 Injection Heaters	S	A				
Regeneration Gas Heater	S	A				
TEG Reboiler	S	A				
Amine Unit	S	A				
Fire Pump Engines	S	A				
CTB – Flare	S	A				
RCF – Flare	S	A				
Fugitive GHG Emissions	S	A				
Maintenance GHG	S	A				
Pressure Relief GHG	S	A				
Miscellaneous Tanks	S	A				
EOR Power Consumption	S	A				
Miscellaneous/Oil Field						
Well Maint. Activities	S	A				
Offsite Transportation Sources	S	A				
Petroleum Product Trans/Ref/Use		S, A				

PSA Staff Position – S

Applicant White Paper Position - A

Areas with Potential Staff Compromise – (Yellow Highlight)

Areas of Agreement – (Green Highlight)

Applicant PSA AQ & GHG Comment Discussion Issues[1] (TN 200768)

Greenhouse Gases – Applicant SB 1368 Comments

CS-03, -22 through -29, -31, -34, -41 – These comments are related to the greater SB 1368 EPS calculation methodology discussion. However, it should be noted that any resolution of the EPS calculation methodology may engender very different editing differences between the EPS compliance discussion and the project as a whole GHG emissions impact discussion.

CS-17 – MWh/year value was based on the revised CO_2 recirculation ratio multiplier (1.24) provided by Oxy to increase emissions/electricity estimates. We may be able to adjust all values if Oxy can provide an estimated project life average value, which staff did request previously, that is different than the estimated maximum value they have provided. However, we do note that the CO2 recycle rate is an estimated rate that could end up being low. Clearly there are indirect emissions associated with power consumption, and we clearly note they are indirect emissions, so we disagree with this part of the comment.

Greenhouse Gases – Comments on Section

CS-05 – We want to see a legal commitment for carbon sequestration between HECA and Oxy before the hearings. We will not recommend licensing the project without a clear commitment for carbon sequestration (deferred mitigation issue).

CS-08 – We are unsure whether the emissions from the EOR process will remain below PSD thresholds, or if the site will already trigger PSD from other sources, so we are not willing to make the suggested edit but we are considering making it more conditional…"will get permit if applicable".

CS-11, -13 – These comments seem incorrect…the gasification flare would take the entire exhaust from the gasifier, that is all of the carbon from the feedstock, while the CO_2 vent is only the separated fraction of the CO2 that would be sent to Oxy.

CS-18 – We need clarification on this comment. We asked the applicant to provide a background emissions estimate to allow a determination of emissions changes with land use, but we didn't receive such information. So, it is unclear what the applicant is asking for here.

CS-19 – We are considering revising this table to a total direct/indirect emissions table, which would not include any generation data. We would then add a generation and consumption table to show total net project generation, which would not include any emissions data.

CS-20 – We will attempt to compare apples to apples regarding Avenal once we are finished determining SB 1368 emissions for this project.

CS-21 – We were attempting to note the positive energy development of the project related to EOR. We do not understand why the applicant would not want to identify the EOR project's energy development.

CS-30 – This comment does not seem to have a proposed action. Please identify a proposed action.

[1] It can be assumed that comments not addressed herein, with the exception of several carbon sequestration related comments (CS-02, -06, -32, -35 through -40), will generally be addressed as requested by the applicant.

Comment on GHG Conditions

Note: USEPA has requested in their PSA/DEIS comment letter that we retain our GHG conditions of certification. Therefore, we intent to keep all of these conditions within the SA, at least in concept, even if they are consolidated or simplified.

GHG-1 – We need to discuss how to maintain the requirements of this condition and those of GHG-4 appropriately to ensure regulatory compliance. There is some cross over with the SB 1368 discussion. This issue also directly relates to the edits requested for GHG-2.

GHG-2 – see GHG-1 above.

GHG-3 – Staff is considering this request, but we need to be assured that the MRV plan contains adequate requirements. Given the issue of deferred CEQA mitigation we want to be able to refer to an existing and adequate MRV plan in this condition. Staff has not yet received an adequate MRV plan. We will also likely add additional provisions in the verification for updating the MRV plan when necessary by regulation or otherwise based on a standard interval and then requiring the updated plan to be approved.

GHG-5 – This condition may be able to be deleted, or combined with another condition, depending on the adequacy of the MRV plan received.

General Note: The GHG conditions have been proposed in part due to existing regulatory gaps. If those gaps are filled then the conditions can be requested to be amended.

Air Quality Section Comments

AQ-01, -12, -14, -23 – Interpollutant offsets ratio issue. USEPA did not provide comments on this issue due to the PM2.5 emissions total being below PSD threshold of 100 tons/year. We will adjust our text to reflect no negative USEPA comments on this issue.

AQ-02 – Net MW. This is an issue related to our SB 1368 discussion.

AQ-04 – We understand your comment, but we present the appropriate averaged background values later in Table 6 (also see AQ-07 below). We will footnote this issue in Table 5.

AQ-05 – We have removed USEPA determined exceptional events in the federal ambient concentration summaries, but are not willing to do so for the California data summaries without concurrence from ARB.

AQ-07 – Follow-up question…are the noted NAAQS design values desired by the applicant shown in the FDOC modeling summary?

AQ-08 – This comment needs to be more specific. Staff made every attempt to use the OEHI data from the references cited, including the use of the CO2 recycle multiplier noted above, to update the emissions. What specific issues is the applicant seeing with the values presented?

AQ-13 – It is unclear what the applicant wants in regards to this comment. Our issue is that Kern County is very large and mitigating east or south of Bakersfield would provide little or no local relief, so we would like to see the funds used as close as possible to the site.

AQ-16 - Condition AQ-SC12 comment. The applicant is committing the line haul operator to a specific tier already in the emissions calculations, so why would it be in their control for one engine tier and not in their control for another?

AQ-22 – We believe that this comment is not appropriate for the AQ section. GHG emissions are addressed separately, so we believe our finding of no noteworthy AQ public benefits is appropriate.

Comments on AQ Conditions

AQ-SC6 – We are not likely going to change this condition. We would expect that the facility should be able to lease or rent new equipment. We may allow a limited exemption for short-term rentals, and we will add clarification that the equipment must be current model year when first used but then can be continued to be used as long as it is continuously owned/leased/rented.

AQ-SC10 –We are requiring emissions controls beyond SJVAPCD Regulation 8 requirements, which do not appear to have any specific requirements for emission control from railcars, so noting compliance with that regulation doesn't provide the desired mitigation of emissions we are seeking from this condition.

AQ-SC12 – Given the amount of unit trains required for this project it would seem reasonable for the line haul operator to dedicate specific locomotives to this project, and in this condition we are giving a five year grace period from the date when Tier 4 engines are required for new model locomotives to the time they are required for the project's line haul locomotives. Given that the emissions are currently based on Tier 3, we have assumed that will be a contract guarantee from the line haul operator, if not the general conformity emissions values and associated mitigation are suspect.

We may be amenable to certain edits for the switch locomotive, but we want to discuss project construction schedule and switch locomotive procurement timing.

District Condition verification edit requests – We will make the suggested edits if we find that the proposals are based on correct information, and that we are not filling a necessary gap for condition verification.

Project Refinements Document Issues

CO2 Vent Diameter – The May modeling analysis presents a diameter of 3.5 feet and the Project Refinements document Table 5.11-2 provides a diameter of 5.3 feet. Please confirm the correct diameter is 3.5 feet and that the model velocity matches the flow rate/volume for that stack diameter.
Feedstock Drying Stack Temperature – The Project Refinements document revised the moisture content for the feedstock dryer from 11.8 to 14 percent (Although it didn't show it as a change in underline/strikeout). We want to confirm that the additional water in the stack, assuming that it might be from additional water evaporation from the feedstock, wouldn't also reduce the exhaust temperature of the feedstock dryer which unlike the moisture content was not shown to change.

Other Miscellaneous Issues

Operating Hours - It is not clear if there are minor inconsistencies in operating hours assumptions. Clarification in the annual operating hours for each source, and the logic between the interconnected sources, would be useful. Specifically we would like a table that lists the annual operating hour assumptions for each source or process unit and provides the interconnection assumptions with other process units. This would clarify issues such as do the ASU hours match the needs for both the gasifier and the fertilizer sources, will the facility be staffed in order to received/export feedstock/products 24/7/365 as may be needed to accept coal from Wasco, etc.

Supplemental Response Document (TN 201074) Follow-up

CS-1 – We will need to figure this issue out, meaning finding a way to have certainty regarding the carbon sequestration partnership with Oxy, but it is partially a legal issue that will need CEC counsel's agreement.

CS-7B, 7C, 7I – Issues will be included in the overall SB 1368 compliance discussion.

CS-7K – The carbon going to the gas turbine remains constant during on and off-peak operation because the carbon lost in the reduction in the syngas use is made up for in the PSA off-gas increase as there is no other place for the Syngas carbon to be used or released, correct? (I think this will be clear in the M&E information but I don't have that yet).

CS-7M – We don't consider this response to be adequate. We want to understand how the applicant will track GHG emissions onsite, and this covers several regulations including SB 1368 EPS, Cap and Trade, and State/Federal GHG emissions reporting requirements.

2.a.ii. – a) the H&M balance does not provide the requested complete balance around the gasifier, notable streams not included are the feedstock and the water added to the gasifier (the subpart of stream 29 used in the gasifier). b) If there is no data on the vented gases how can we conclude there is no risk (workers or off-site) from their venting? Our initial research indicates there could be substantial value in not venting argon and nitrogen, so will the applicant agree to a condition that does not allow offsite shipping of gases from the ASU?

2.a.iii/WR-CS-4 – Given there is some variability in the feedstock dryer's exhaust is the data presented a reasonable worst case for both thermal and visible plume analysis? Also, we understand the numeric change in the moisture content but we don't understand why it increased from the value presented in the AFC (was the first estimate corrected based on more detailed engineering, or did the inclusion of fluxant effect the water content, etc.?) and we don't understand how that didn't affect the exhaust mass flow rate and temperature?

WR-CS-1 – As noted above the H&M balance is not complete as requested around the gasifier. The notes and questions related to the H&M balance are as follows:

- The material balance is not complete as it doesn't provide the C, H, N, S, O input values from the feedstock (streams 1, 2, and 38), or the specific amount of water from stream 29 that is input to the gasifier. We specifically asked for enough information to complete a material balance around the gasifier. I realize that some other submittals may have some of this information, but I am not sure we have the exact profiles of the coal and petcoke assumed by Fluor, or the exact input quantities for the feedstock that were used by Fluor for this balance and we want to have it all in one place to confirm the currently assumed values.
- Are the gases from the ASU heated prior to delivery? If so what is the source of the heat?
- Where does the IP steam input to the ASU come from?
- The H&M balance doesn't show NOx and N_2O, so are these within the values shown for N_2 and O_2, or are they small enough in quantity that they weren't relevant for this material balance?

- Streams 18/19 seem to have a minor error relating to the CO_2 and argon balance (comes in but doesn't come out).
- The air composition for stream 32 isn't consistent/complete like the other air input streams and it is unclear where it goes…it doesn't seem to go into stream 33 and doesn't seem to go into stream 24…and in general the composition balance between streams 23 and 24 (input/exhaust from feedstock dryer) are hard to follow.

Project Refinements Document (TN 200948)
Visible and Thermal Plumes

1. For the feedstock drying stack Table 5.11-6 in the project refinements document (TN 200948) shows a full load exhaust moisture content value of 14 percent, while the AFC indicated a value of 11.8 percent. Staff noted in the PSA workshop that a water balance figure provided as a data response did not match the 11.8 percent value shown in the AFC. Staff understands that the revised 14 percent value appears to closely match the newer water balance figure value; however, no explanation for the change in the value was provided. Staff is uncertain if the value in the AFC was incorrect, or if the addition of the fluxant or other assumptions regarding the feedstock entering the dryer increased the water content of the feedstock which leads to a higher exhaust water content. Please provide a short discussion that details the rationale for the increased water content assumption.

2. Given the increased water content in the feedstock dryer exhaust, staff is concerned from an energy balance point of view that the additional heat required for this additional evaporation should reduce the feedstock dryer's exhaust temperature. Please provide a heat balance that confirms the feedstock dryer's 200 degree Fahrenheit exhaust temperature.

3. The cooling tower exhaust mass flow rate is now shown to remain stable regardless of ambient condition. There are two problems with stable mass flow rates for cooling towers: first, at low temperatures cooling tower cells are normally turned off (as was clearly shown by the flow reductions in the AFC cooling tower tables); second, there should be minor differences in the mass flow rate due to the differences in ambient condition (density of air). Please review the data submitted and provide corrections where necessary that address both of the issues noted above and the issue noted in the following data clarification.

4. The cooling tower exhaust temperature is noted as 75 degrees Fahrenheit regardless of the ambient condition in Tables 5.11-7 and 5.11-8 of the Project Refinements document. Staff's energy balance shows different exhaust temperatures for all ambient temperatures and operating conditions for both the power and process cooling towers. Staff's energy balance finds the following exhaust temperatures for the maximum power case condition:

Cooling Tower Heat Balance Temperature Comparison – Max Power Case

	Power Cooling Tower	**Process Cooling Tower**
Ambient Case	**39°F**	**39°F**
Applicant Exhaust Temperature	75°F	75°F
Staff Exhaust Temperature	73.8°F	67.1°F
Ambient Case	**65°F**	**65°F**
Applicant Exhaust Temperature	75°F	75°F
Staff Exhaust Temperature	83.4°F	78.1°F
Ambient Case	**97°F**	**97°F**
Applicant Exhaust Temperature	75°F	75°F
Staff Exhaust Temperature	90.1°F	85.6°F

The energy balances staff has performed suggests higher exhaust temperatures for the 97 and 65 degree Fahrenheit ambient cases and lower exhaust temperatures for the 39 degree Fahrenheit ambient case. These differences may not look significant, but both visible and thermal plume modeling for cooling towers are very sensitive to the heat balance/exhaust temperature assumptions. Staff will use our own heat balance derived exhaust temperatures, which also incorporates any revisions provided for the exhaust mass flow data as directed in the data clarification above this one, unless the applicant provides a staff verified corrected cooling tower heat balance that both corrects the exhaust flow values and the exhaust temperature values provided in the Project Refinements document.

5. Please confirm the revised data provided, specifically the data shown in bold/italic/underline that summarizes these revised exhaust stack release parameters.

Gasification Flare Exhaust Parameters

	Original Gasification Flare	**Revised Gasification Flare**
Ambient Case	**65°F**	**65°F**
Actual Stack Height	250 feet (76.2 meters)	250 feet (76.2 meters)
Effective Stack Height[a]	390.5 feet (119.0 meters)	390.5 feet (119.0 meters)
Actual Stack Diameter	9.8 feet (2.99 meters)	***<u>5 feet (1.52 meters)</u>***
Effective Stack Diameter[a]	31.1 feet (9.49 meters)	0.41 feet (0.124 meters)
Stack Velocity	65.5 ft/sec (20 m/s)	65.5 ft/sec (20 m/s)
Exhaust Temperature	1,832°F (1,273°K)	1,832°F (1,273°K)

Sources: Appendix E-3, Flare Stack Parameters and Project Refinements document (TN 200948).

a. The applicant provided effective heights and effective diameters following USEPA modeling guidance for flares, where the values shown above do not include the applicants base stack height correction to the good engineering practice (GEP) 65 meter stack height.

Rectisol® Flare Exhaust Parameters

	Original Rectisol® Flare	**Revised Rectisol® Flare**
Ambient Case	**65°F**	**65°F**
Actual Stack Height	250 feet (76.2 meters)	250 feet (76.2 meters)
Effective Stack Height[a]	306.2 feet (93.3 meters)	306.2 feet (93.3 meters)
Actual Stack Diameter	1.3 feet (0.4 meters)	***<u>3 feet (0.91 meters)</u>***
Effective Stack Diameter[a]	11.9 feet (3.64 meters)	0.315 feet (0.096 meters)
Stack Velocity	65.5 ft/sec (20 m/s)	65.5 ft/sec (20 m/s)
Exhaust Temperature	1,832°F (1,273°K)	1,832°F (1,273°K)

Sources: Appendix E-3, Flare Stack Parameters and Project Refinements document (TN 200948).

a. The applicant provided effective heights and effective diameters following USEPA modeling guidance for flares, where the values shown above do not include the applicants base stack height correction to the good engineering practice (GEP) 65 meter stack height.

SRU Flare Exhaust Parameters

	Original SRU Flare	**Revised SRU Flare**
Ambient Case	**65°F**	**65°F**
Actual Stack Height	250 feet (76.2 meters)	250 feet (76.2 meters)
Effective Stack Height[a]	267.2 feet (81.43 meters)	267.2 feet (81.43 meters)
Actual Stack Diameter		***<u>2.5 feet (0.76 meters)</u>***
Effective Stack Diameter[a]	3.5 feet (1.05 meters)	0.315 feet (0.096 meters)
Stack Velocity	65.5 ft/sec (20 m/s)	65.5 ft/sec (20 m/s)
Exhaust Temperature	1,832°F (1,273°K)	1,832°F (1,273°K)

Sources: Appendix E-3, Flare Stack Parameters and Project Refinements document (TN 200948).

a. The applicant provided effective heights and effective diameters following USEPA modeling guidance for flares, where the values shown above do not include the applicants base stack height correction to the good engineering practice (GEP) 65 meter stack height.

CO_2 Vent Exhaust Parameters

	Original CO_2 Vent[b]	Revised CO_2 Vent[c]
Ambient Case	**65°F**	**65°F**
Actual Stack Height	355 feet (108.2 meters)	355 feet (108.2 meters)
Actual Stack Diameter	1.3 feet (0.4 meters)	***5.3 feet (1.62 meters) or 3.5 feet (1.07 meters)***
Stack Velocity	183.5 ft/sec (55.92 m/s)	183.5 ft/sec (55.92 m/s)
Exhaust Temperature	65°F (291°K)	65°F (291°K) – Ambient T

b. Source: Table 5.11-2 and original AQ modeling.

c. Sources: August 2013 PSA information request response Table 5.11-2 and May 2013 AQ modeling, where they do not provide the same value for the stack diameter.

Savage Coal – Wasco Coal Terminal SEA (TN 200797)

INFORMATION/CLARIFICATION REQUESTs

A1. Please provide an underline/strikeout version of the current CUP conditions that shows all of the requested modifications, deletions, and additions to those conditions.

A2. The SEA indicates that currently 80 railcars take 32 hours to process and that 111 HECA railcars would take 35 hours. Why is the per railcar average unloading time assumed to be reduced from the current 24 minutes per railcar to 18.9 minutes per railcar, an over twenty percent reduction?

A3. Page 2-4 of the SEA notes that the route may have to go through the City of Wasco depending on the High Speed Rail (HSR) project. There are several restrictions regarding travel routes in the CUP conditions, so does the CUP actually allow the travel route indicated on page 2-4, and what additional requests for CUP condition changes will be made for the truck travel route with or without the HSR project, or otherwise?

A4. The truck trip requirements listed do not match those provided in the assumptions provided by the applicant. Specifically, the average daily number of trucks listed by the applicant based on their average and maximum coal trucking throughput estimates, correcting for a larger load of 27 tons/truck for 4,580 tons/day of coal (333 days per year transporting) would be 170 truckloads per day, and the required maximum daily truckloads for the applicant stipulated maximum coal trucking amount of 6,500 tons/day would be 241 truckloads per day. Please clarify this discrepancy.

A5. It is unclear if the HECA facility, given its noted 333 day per year operating schedule would have staff available to receive coal shipments 365 days per year. Also, given the higher costs to operate 365 days per year, weekend and holiday labor rates, is a 365 day/year schedule as noted in the SEA actually reasonable?

A6. A few questions arise given the average trucking hourly volumes of 7 to 8 trucks per hour noted in the SEA and the maximum loading potential of 9 trucks per day (6.66 minutes per truck) noted in the SEA.

a. What is the real in practice daily averaged maximum for truck loading?
b. How would the facility meet the HECA noted daily average and maximum throughput obligations without expansion of the truck unloading facilities?
c. At 6.66 minutes per truck, and 20 hours per day we calculate a maximum daily truck loading limitation of 180.2, or 180 trucks ([20 x 60]/6.66). This value conflicts with the 182 trucks per day value listed in the SEA. Please confirm the maximum daily truck throughput value based on the answer to subpart a. above.

A7. What is the empty truck & trailer combined weight? Staff is requesting clarifications if the empty truck and trailer combination is less than 13 tons.

A8. It is noted on page 3-3 that the AERMOD air dispersion modeling output files are provided in Appendix A, but we cannot find any AERMOD output files within the 6 page Appendix A, only a summary of the modeling results. Please provide the noted AERMOD output files.

A9. An incorrect EMFAC2011 truck category was used in the SEA emissions calculations. The calculations used the “T7 public”; however, the Wasco Coal Terminal is not a public agency, so the “T7 Tractor” (or maybe “T7 Single”) category should have been used. Please determine if correcting the truck category would create a significant difference in the truck emissions presented in the SEA.

A10. It appears that the onsite truck travel does not include road dust emissions, which due to likely dusty conditions onsite would be higher than typical paved road dust emissions. Please calculate and add the road dust emissions to the emissions totals.

A11. Given the round trip distance, CUP condition route limitations, and associated round trip time in route to/from the HECA facility:

a. How many total coal delivery trucks (trucks not trips) would need to be dedicated to this project.

b. How many coal delivery trucks does the Wasco Coal Terminal currently have dedicated to this site?

A12. What is the loss in total throughput capacity due to complying with the CUP conditions, such as including reducing trips during school bus active periods?

A13. Outside of the CUP and air quality permit conditions are there any other laws, regulations, etc. that limit throughput or hours of operation. Such as, are there any limits on overnight operations to meet county or local Noise regulations?

A14. Where are the full and empty railcars stored, as it doesn’t appear that there is enough siding track adjacent to the unloading site to hold a full 100 plus railcar unit train? Also, will track siding availability change if the high speed rail project is built?

A15. Please identify technical feasibility issues related to complying with staff’s recommended Condition of Certification AQ-SC7 for haul trucks and staff’s Condition of Certification AQ-SC12 if revised to require coal rail receiving onsite or offsite to use switch locomotives that comply with Tier 4 emissions standards.