

DOCKETED

Docket Number:	08-AFC-08A
Project Title:	Hydrogen Energy Center Application for Certification Amendment
TN #:	201553
Document Title:	Sierra Club Comments re City of Wasco Savage Coal Depot
Description:	N/A
Filer:	Andrea Issod
Organization:	Sierra Club
Submitter Role:	Intervenor
Submission Date:	1/13/2014 4:33:32 PM
Docketed Date:	1/13/2014



January 13, 2014

Mr. John Heiser
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**Re: Sierra Club's Comments for the City of Wasco's Hearing on January 13, 2013
regarding the Proposed Conditional Use Permit (CUP 489-87) Amendment for
Savage Coal Depot (08-AFC-8A)**

Dear Mr. Heiser,

Please find attached Sierra Club's Comments for the City of Wasco's Hearing on January 13, 2013 regarding the Proposed Conditional Use Permit (CUP 489-87) Amendment for Savage Coal Depot in the above-referenced docket. This document has been e-filed with the Commission and served on parties via the Commission's e-filing system.

Please let me know if you have any questions. Thank you.

Sincerely,

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January 13, 2014

Via Email

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**Re: Sierra Club's Comments for the City of Wasco's Hearing on January 13, 2013
regarding the Proposed Conditional Use Permit (CUP 489-87) Amendment for
Savage Coal Depot**

City of Wasco:

Sierra Club provides the following comments for the January 13, 2013 hearing for consideration by the City of Wasco ("City") regarding the proposed amendment of the Conditional Use Permit ("CUP") 489-87 for the Savage Coal Depot in Wasco, California. This document has also been e-filed with the California Energy Commission ("CEC") and served on parties via the CEC's e-filing system.

I. Background

The construction and operation of the Savage Coal Depot, also known as Wasco Transloading Facility, was approved by the City with CUP 489-87 on September 10, 1990, after undergoing review under the California Environmental Quality Act ("CEQA"). The facility, located in an M-3 Heavy Industrial Zone, was built to handle 1.5 million tons of bituminous coal; however, CUP Condition No. 81 restricted the facility's annual throughput to 0.9 million tons. The owner and operator of the facility, Savage Services Corporation ("Applicant"), now proposes to amend CUP 489-87 to permit an annual throughput at the transloading facility of 1.5 million tons and change the material handled from bituminous coal to non-metallic minerals ("Project") to accommodate the needs of a new client, Hydrogen Energy California ("HECA"), a proposed coal gasification and fertilizer facility which is currently undergoing review by the

CEC. The proposed amendment would not require a physical expansion of the transloading facility, which has been in continuous operation for 23 years.¹

II. The City Should Not Approve the Proposed CUP Amendment Without Further CEQA Review

The City finds that CEQA does not apply to the current CUP amendment, *i.e.*, the increase in throughput to full capacity at 1.5 million tons per year (“tons/year”) and the change in materials from bituminous coal to non-metallic minerals at the Savage Coal Depot, pursuant to Public Resources Code Section 21080(b)(6).² Sierra Club disagrees with the City’s finding.

The CEC is currently in the preliminary stages of reviewing the environmental impacts associated with the Savage Coal Depot expansion in connection with the HECA project; however, the CEC does not have responsibility for the permitting of the Savage Coal Depot facility. The City has an obligation under its land use plan to ensure this CUP amendment complies with CEQA. If the City intends to rely on the CEC’s analysis for the purposes of its own CEQA review, it may not approve the proposed CUP amendment until the CEC makes its final decision on the HECA project. At that time, the City must review the CEC’s decision and provide an independent CEQA document such as a mitigated negative declaration or environmental impact report and invite public comment before it can approve the proposed amendment of the CUP.

Additionally, the City’s proposed amendment is inconsistent with the CUP itself. CUP Condition 81 allows approval of expansion provided, “The project(s) receiving the coal must be approved by the appropriate lead agency and must have undergone an environmental review which identifies the usage of coal.” This condition has not been satisfied because the CEC has not approved HECA, and it has not certified the environmental review. The City must wait until the CEC makes its final decision on the HECA project before further evaluation of the proposed CUP amendment.

III. Review of the Environmental Impacts of the Project to Date Is Inadequate to Fulfill CEQA Review Requirements

Environmental review to date of past and future Savage Coal Depot operations includes the City’s 1987 Mitigated Negative Declaration³ (“1987 MND”) for construction and operation

¹ City of Wasco, Memorandum to Responsible Agencies, Re: Responsible Agency Routing, Conditional Use Permit 489-87 Amendment, November 18, 2013 (hereafter “Wasco November 18, 2013 Memorandum”, pp. 1-2).

² Wasco November 18, 2013 Memorandum, p. 6.

³ City of Wasco, Wasco Coal Transfer Facility, Initial Study and Environmental Assessment, August 12, 1987.

of the facility under CEQA and the *Wasco Coal Terminal Supplemental Environmental Analysis Related to Providing Service to Hydrogen California Project*⁴ (“2013 Supplemental Analysis”), prepared by the applicant for the HECA project for the proceedings for the HECA project under the CEC’s jurisdiction. The 2013 Supplemental Analysis is inadequate to serve as the sole basis for a future CEQA document for the City and, and as discussed below, is deficient.

A. The 2013 Supplemental Analysis Fails to Adequately Address Health Risks from the Project

The Project would result in increased emissions of diesel exhaust at the Savage Coal Depot from additional coal transfer trucks and additional idling and operation time of the switch locomotive.⁵ Diesel exhaust is a complex mixture of gaseous and solid materials. The visible emissions in diesel exhaust are known as diesel particulate matter (“DPM”), which includes carbon particles or “soot.” Diesel exhaust contains a variety of harmful gases and over 40 other known cancer-causing substances. Diesel exhaust has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death. Fine diesel particles are deposited deep in the lungs and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death.^{6,7} On August 27, 1998, after extensive scientific review and public hearing, the CARB formally identified particulate emissions from diesel-fueled engines as a toxic air contaminant, regulated pursuant to Health and Safety Code section 39650 *et seq.*⁸ In May 2002, the EPA, after another exhaustive review, concluded that “long-term (*i.e.*, chronic) inhalation exposure is likely to pose lung cancer hazard to humans, as well as damage the lung in other ways depending on exposure. Short-term (*i.e.*, acute) exposures can cause irritation and inflammatory symptoms of a transient nature... The assessment also indicates that evidence for exacerbation of existing allergies and asthma symptoms is emerging.”⁹

The 2013 Supplemental Analysis evaluates the incremental health risks due to the Project compared to historic operations at the Savage Coal Depot in 2012 as the baseline.¹⁰ Specifically,

⁴ HECA, *Wasco Coal Terminal Supplemental Environmental Analysis Related to Providing Service to Hydrogen California Project*, October 2013; http://docketpublic.energy.ca.gov/PublicDocuments/08-AFC-08A/TN200797_20131009T142156_Wasco_Coal_Terminal_Supplemental_Environmental_Analysis.pdf.

⁵ 2013 Supplemental Analysis, p. 3-7.

⁶ CARB, *Health Effects of Diesel Exhaust*; <http://www.arb.ca.gov/research/diesel/diesel-health.htm>.

⁷ CARB, *Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant*, Staff Report, June 1998; <http://www.arb.ca.gov/toxics/dieseltac/staffrpt.pdf>.

⁸ CARB, Resolution 98-35, August 27, 1998.

⁹ EPA, *Health Assessment Document for Diesel Engine Exhaust*, EPA/600/8-90/057F, May 2002; <http://www.epa.gov/ttn/atw/dieselfinal.pdf>.

¹⁰ 2013 Supplemental Analysis, p. 3-8 through 3-11.

the 2013 Supplemental Analysis quantifies the incremental cancer risk and acute and chronic non-cancer health risks from increased emissions at the maximum proposed throughput of 1.5 million tons/year at the facility compared to the 2012 throughput at 119,405 tons/year. The 2013 Supplemental Analysis concludes that all impacts are below the significance threshold of 10 in one million for incremental cancer risk and 1.0 for acute and chronic non-cancer health risks as established by the San Joaquin Valley Air District (“SJVAPCD”) for purposes of CEQA review.¹¹ There are several problems with this analysis.

First, the 2013 Supplemental Analysis’ public health section cites to a 2013 document by Insight Environmental Consultants.¹² This document, which is the basis for the quantitative health risk assessment, is not provided. Thus, the findings in this health risk assessment are not adequately supported. This document must be disclosed for public review and comment.

Second, the health risk assessment finds excess cancer risks of 6.75 in one million at the point of maximum impact (“PMI”),¹³ but the health risk assessment did not adjust these estimates for child receptors.

A large fraction of lifetime (70-year) cancer risk, and an even larger fraction of the cancer risk for the first 30 years in life, is incurred during the first 16 years of life because of the higher risk of early in life exposure. Consequently, both California’s Office of Environmental Health Hazard Assessment (“OEHHA”) and the U.S. Environmental Protection Agency (“EPA”) recommend the use of age-dependent adjustment factors to account for the higher risks during early stages of life.

Specifically, OEHHA recommends:

Based on the OEHHA analysis of the potency by lifestage at exposure, OEHHA proposes weighting cancer risk by a factor of 10 for exposures that occur from the third trimester of pregnancy to 2 years of age, and by a factor of 3 for exposures that occur from 2 years through 15 years of age. We intend to apply this weighting factor to all carcinogens, regardless of purported mechanism of action, unless chemical-specific data exist to the contrary. In cases where there are adequate data for a specific carcinogen of potency by age, we would use the data to make any adjustments to risk.¹⁴

EPA recommends the same adjustment factors.¹⁵ The Savage Coal Depot site borders multi-family housing to the north and is close to single-family residences to the west. These homes will

¹¹ 2013 Supplemental Analysis, p. 3-1.

¹² 2013 Supplemental Analysis, p. 3-10.

¹³ 2013 Supplemental Analysis, Table 3.6-1, p. 3-10.

¹⁴ OEHHA, Technical Support Document for Cancer Potency Factors: Methodologies for Derivation, Listing of Available Values, and Adjustments to Allow for Early Life Stage Exposures, May 2009, pp. 3-4; http://www.oehha.ca.gov/air/hot_spots/2009/TSDCancerPotency.pdf.

¹⁵ EPA, Cancer Risk Calculations; <http://www.epa.gov/oswer/riskassessment/sghandbook/riskcalcs.htm>.

have children in residence. Because children are potentially present at these residences, child cancer risk must be evaluated.

Based on the excess cancer risk of 6.75 in one million, the child cancer risk at the residences can be calculated at 11.4 in one million as shown in the following table.

Risk Year	Period (years)	Age Sensitivity Factor	Excess Child Cancer Risk*
1	1	10	9.64E-07
2	1	10	9.64E-07
3	1	4.75	4.58E-07
4	1	3	2.89E-07
5	1	3	2.89E-07
6	1	3	2.89E-07
7	1	3	2.89E-07
8	1	3	2.89E-07
9	1	3	2.89E-07
10	1	3	2.89E-07
11	1	3	2.89E-07
12	1	3	2.89E-07
13	1	3	2.89E-07
14	1	3	2.89E-07
15	1	3	2.89E-07
16	1	3	2.89E-07
17	1	1.5	1.45E-07
18	1	1	9.64E-08
19	1	1	9.64E-08
20	1	1	9.64E-08
21	1	1	9.64E-08
22	1	1	9.64E-08
23	1	1	9.64E-08
24	1	1	9.64E-08
25	1	1	9.64E-08
26	1	1	9.64E-08
27-70	44	1	4.24E-06
Total:			1.14E-05

* Calculated as: (6.75E-06) / (70 years) × (Period) × (Age Sensitivity Factor)

The excess child cancer risk at the PMI of 11.4 in one million exceeds the CEQA threshold of significance established by the SJVAPCD. Therefore, health risks associated with the Project are significant, contrary to the findings in the 2013 Supplemental Analysis.

Third, CEQA requires the analysis of “cumulative impacts,” meaning two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. CEQA Guidelines Section 15355 defines cumulative impacts as follows:

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Here, the 2013 Supplemental Analysis does not provide a cumulative health risk assessment for “past, present, and reasonably foreseeable probable future projects.”

Such an analysis must include the health risks from the prior 23 years of operation of the Savage Coal Depot as well as health risks by other existing facilities in the vicinity, including, *e.g.*, Asphalt Coating Engineering and Golden Empire Concrete, as well as any other reasonably foreseeable projects in the vicinity. The City’s 1987 MND was published before diesel particulate matter was recognized as having carcinogenic and acute and chronic non-cancer health risks. Consequently, the 1987 MND did not analyze the health risks associated with the 0.9 million tons/year throughput permitted under CUP 489-87. This makes it even more important that the City analyze the cumulative health risks from the prior 23 years of operation and the entire proposed 1.5 million tons/year throughput at the Savage Coal Depot.

Savage Coal Depot currently uses Tier 0 switching engines. The CEC has proposed conditions of certification for the HECA project that include the operation of a switching locomotive at the Savage Coal Depot that complies with Tier 4 emission standards, which would substantially reduce diesel emissions at the facility. In response to CEC Data Request #A241, the applicant for the HECA project disagreed with the CEC’s proposed condition because its analysis showed that use of a Tier 2 engine would be good enough to reduce impacts to less than significant.¹⁶ Considering the above discussed significant impacts, the Sierra Club strongly supports the CEC’s proposed condition of certification to require Tier 4 certification for a switching engine, and recommends that the City require the exclusive use of Tier 4 engines for all switching engines at the Savage Coal Depot.

B. The 2013 Supplemental Analysis Fails to Identify Significant Environmental Justice Impacts from the Project

The 2013 Supplemental Analysis concludes, based on the Preliminary Staff Assessment/ Draft Environmental Impact Report for the HECA project, which was jointly published by the CEC and the Department of Energy, that “the proposed HECA Project would not have substantial direct, indirect, or cumulative adverse effects on Project Area housing, schools, law enforcement services, and parks.”¹⁷ The 2013 Supplemental Analysis states that “[t]his finding

¹⁶ HECA, Hydrogen Energy California (08-AFC-8A), Responses to Wasco Coal Terminal Supplemental Environmental Analysis Data Requests A218-A253, December 19, 2013; http://docketpublic.energy.ca.gov/PublicDocuments/08-AFC-08A/TN201455_20131219T160707_Responses_to_Wasco_Coal_Terminal_Supplemental_Environmental_Ana.pdf.

¹⁷ 2013 Supplemental Analysis, p. 3-11.

was further tested in the immediate vicinity of the Coal Terminal from an increase in operations to full capacity. A focused evaluation of air quality, public health, and noise has shown no new adverse environmental effects from an increase in operations. Because there would be no adverse effects from expanded Coal Terminal operations, there would be no adverse effects on environmental justice populations within the City of Wasco.” Sierra Club disagrees with this finding.

As discussed above, public health impacts due to emissions from the Project as well as cumulative impacts from past, present, and reasonably foreseeable projects would be significant. Considering the City’s economic and racial composition this finding raises serious concerns regarding environmental justice.

C. The Analysis of Fugitive Dust Emissions in the 2013 Supplemental Environmental Analysis Is Inadequate

CEC staff noted that the emissions estimates contained in the 2013 Supplemental Analysis did not include fugitive dust emissions from onsite roads at the Savage Coal Depot. In response, the applicant for HECA stated that “[e]ven if the paved roadways were to have some fugitive dust emission blown onto them from operations, the emissions would either be already included in the fugitive emissions estimates from the operations or be considered insubstantial when considered with the overall projects emissions to cause any changes to the less than significant findings in the original analysis.”¹⁸ Sierra Club finds this response unsatisfactory and agrees with CEC staff that fugitive dust from on-site roads must be quantified and included in any emission estimates for the Project, particularly if used for CEQA purposes.

Sierra Club notes that Google View clearly shows coal dust accumulated on site at the facility’s truck loading station and coal dust trackout from the facility’s exit onto H Street all the way onto J Street/Wasco Avenue.¹⁹ Emissions from travel of haul trucks carrying coal on paved roads both on- and offsite must be included in the air quality analysis for the Project under CEQA. These emissions can often be substantial and may result in significant impacts on air quality.

¹⁸ HECA, Hydrogen Energy California (08-AFC-8A), Responses to Wasco Coal Terminal Supplemental Environmental Analysis Data Requests A218-A253, December 19, 2013; http://docketpublic.energy.ca.gov/PublicDocuments/08-AFC-08A/TN201455_20131219T160707_Responses_to_Wasco_Coal_Terminal_Supplemental_Environmental_Ana.pdf.

¹⁹ Google Maps, Savage Services Corporation, Wasco, California; <https://maps.google.com/maps?oe=utf-8&client=firefox-a&ie=UTF-8&q=Savage+Coal+Services+Corporation&fb=1&gl=us&hq=savage+coal+wasco&cid=1458514126322991322&ei=CVvQUsjUEZLroATc-oDYDw&ved=0CKABEPwSMBA>.

D. The Proposed Mitigation for Fugitive Coal Dust Emissions from Rail Cars Is Inadequate

Locals have identified coal spillage and coal dust along the rails in Wasco as ongoing concerns. Any increase in operations at the Savage Coal Depot would likely also exacerbate these ongoing problems.

HECA stated that it has committed to using a chemical surfactant on coal train cars to limit fugitive dust with a control efficiency of at least 85 percent.²⁰ However, Sierra Club questions the efficacy of chemical surfactants in controlling coal dust at the end of the transport. The following comments are excerpted from the Sierra Club's comments on the CEC's Preliminary Staff Assessment:

Fugitive dust and pieces of coal falling from railcars is a major concern. Publicly available testimony from coal companies quantifies the loss from each rail car at between 250 and 700 pounds of coal and coal dust on each trip for an average loss of 500 pounds of coal lost from each car per trip.²¹ CEC staff addresses these concerns with Condition of Certification AQ-SC10 which requires a) the use a surface stabilizing compound (surfactant or water), railcars with adequate freeboard or other mitigation design features or combination thereof; b) that no coal and produced product of any size are released in visible quantities alongside the rail spur from the main rail line to the project site; and c) that no visible product coal dust is emitted at the project site or along the rail spur. The condition requires the Applicant to inspect the rail spur on a monthly basis or if complaints are received. The condition eliminates the requirement for this measure if fully enclosed railcars are used for coal or produced product transport.

Sierra Club requests that CEC modify this condition to require the use of closed railcars since neither surfactants nor water would adequately control dust or coal spillage from the rail cars, as discussed below. Further, Sierra Club notes that railcars also lose coal from the bottom hopper, not just from the top, and dust suppressants have no effect on the chunks of coal that are spilled from the top or bottom of the rail cars.²² Sierra Club further requests that CEC Staff require regular inspections of the rail spur regardless of what type of railcars are used by the Applicant because inspection is the only means to ensure compliance.

While surfactants have been demonstrated to achieve some control of dust from stationary coal piles, the effectiveness of surfactants, applied on loaded coal at the mine, over long distances is questionable and claimed control efficiencies have been criticized as being based on "junk science". There is some evidence that indicates that surfactants/topping agents may even increase coal loss due to "saltation". A declaration

²⁰ HECA Response to CEC Workshop Request A34.

²¹ Sierra Club's Comments on PDOC, p. 122 (citing Hearing Transcript and Recording, July 29, 2010, Arkansas Electric Cooperative Association – Petition for Declaratory Order, Surface Transportation Board, Docket No. FD 35305, tape 1 at Transcript (Tr.) at 102:9-103:7, 37:07, 1h:42; Tr. at 42:5-13, 102:9-103:7 (BNSF Testimony)).

²² See Sierra Club Comments on PDOC, pp. 122 through 123.

by Dr. Mark Viz in a case before the Surface Transportation Board (“STB”) noted as follows:

- e. I also note at the outset that many if not all of the dust suppressants were designed for use in dust mitigation from static coal stockpiles at coal-burning power plants or similar facilities. In this regard these products are generally recognized to work when applied to a large pile of coal *that is stationary*, but there are still many aspects of their performance *in moving railcars* that have not yet been verified. I have observed from my own field work that crusting agents and other topper sprays essentially break apart when a railcar gets shaken or bumped going over the track. Frequently other events can also occur to either upset the efficacy of the topper agent or in certain cases to make the fugitive loss even worse by a process known as “saltation,” i.e., the greater entrainment of particles in a moving air stream as a result of released particles impacting the surface and therefore releasing yet greater amounts of dust. The performance of suppressants during precipitation events and long exposure to wind and solar radiation are also not that well-understood.

Topping agents have a limited useful lifetime as they breakdown by ultraviolet radiation and microbes; abrasion and loss from wind erosion and motion of the train; washout by rain; and degradation of the coal itself. One proposed topping agent, for example, DustBind, is mostly alcohol, which is highly volatile. As noted by Dr. Viz, topping agents have been mainly studied only on stationary coal piles, not on moving trains. Further, evidence presented in proceedings before the Surface Transportation Board suggests that all or most of the topping agent or surfactant is lost during transit.

Further, surfactants contain a myriad of unknown chemicals that have not yet been adequately studied which could cause a number of potential harms, including: danger to human health during and after application; surface, groundwater and soil contamination; air pollution; and impacts on native flora and fauna populations.

Using covered rail cars would have the added benefit of potentially reducing round-trip fuel use by about 9 percent. ...²³

Sierra Club recommends that the City require, as a condition for the amended CUP, that Savage Services Corporation only transload coal from covered railcars to serve the HECA project.

²³ Sierra Club, Sierra Club’s Comments on Air Quality, Water Supply, Alternatives, Public Health, and Nuisance (08-AFC-8A), October 1, 2013; http://docketpublic.energy.ca.gov/PublicDocuments/08-AFC-08A/TN200719_20131002T102420_Sierra_Club%27s_Comments_on_Air_Quality_Water_Supply_Alternatives.pdf; internal citations omitted.

IV. Recommendation

Sierra Club recommends that the City postpone any decisions on CUP 489-87 at the January 13, 2014 hearing and conduct independent environmental review under CEQA for the Project after the CEC finalizes its decision on the HECA Project.

Please note that any documents cited in this letter are available upon request.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Andrea Issod', written in a cursive style.

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