

**PLANNING AND COMMUNITY
DEVELOPMENT DEPARTMENT**

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DEVELOPMENT SERVICES AGENCY

Ted James, AICP, DSA DIRECTOR

Administrative Operations

Engineering, Surveying and Permit Services

Planning and Community Development

Roads

January 10, 2011

File: Hydrogen Energy California Project

California Energy Commission
Attn: Rod Jones, Project Manager
1516 Ninth Street MS-15
Sacramento, California 95814

DOCKET 08-AFC-8
DATE <u>Jan 10, 2011</u>
RECD. <u>Jan 11, 2011</u>

RE: Kern County Planning Department Comments and Request for Conditions; Review of Preliminary Staff Assessment - Hydrogen Energy International (HEI) Application for Certification (08-AFC-8)

Dear Mr. Jones,

The Kern County Planning Department appreciates the opportunity to participate in the permitting process and to provide comments and request conditions of approval on the application for certification by Hydrogen Energy International (HEI) for a proposed Integrated Gasification Combined Cycle power generating facility in unincorporated Kern County. The following are staff comments and requests for conditions based on our review of the Preliminary Staff Assessment, Part 1 (August 2010) and recommended by the Kern County Board of Supervisors on September 14, 2010.

Traffic and Transportation

1. Amend Trans -1, Trans -2, and Trans -7 to read "Kern County Roads Department."
2. Amend Trans -1 to include provision for obtaining all necessary permits for oversized or overweight loads.
3. Amend Trans -2 to include provisions that all required and necessary encroachment permits are to be obtained from the Kern County Roads Department.
4. The Elk -Hills Buttonwillow Airport is owned and operated by the Kern County Airport Department. Trans-4 is not implementable as there is no (Automatic Weather Observation System) AWOS at that airport. Staff recommends contact be made with Kern County Airports Director, Jack Gotcher at (661) 391-1800 to discuss appropriate wording that reflects the authority retained by Kern County to operate the airport.

Worker Safety and Fire Protection

The Kern County Fire Department has reviewed the project and the proposed conditions and has the following requests:

5. Due to the scope and complexity of the project HECA shall provide a Fire Protection Specialist to the Department during the plan review process. HECA will be allowed to select the Specialist from a list of qualified specialists provided by the Department.
6. Worker Safety - 8 should be amended to include the following specific requirements: HECA is required to purchase and deliver to the County a fully equipped industrial Foam pumper/tender (estimated cost \$500,000) and 5,000 gallon cache of foam (estimated cost \$100,000) with the following conditions:

- a. The industrial Foam pumper/tender shall be manufactured to the Department's standards with no substitutions.
- b. (construction and delivery time is estimated to nine months) to the Department 30 days prior to the start-up of the project. Additional time may be required in order to place the Industrial Foam pumper/tender in service and to allow for training personnel assigned to operate the pumper.
- c. The Industrial Foam pumper/tender shall be fully equipped to Department specifications.
- d. The final authority on the specifications for the Industrial Foam pumper/tender shall rest with the County.
- e. The Title for the Industrial Foam pumper/tender shall be transferred to the County upon delivery.
- f. The cache of foam shall meet the Department's standards.
- g. If the Department responds to an emergency at HECA and uses the cache of foam to control or contain the emergency, HECA will be required to replace the amount used within 30 days of the incident.

With these requirements the projects impacts are considered fully mitigated.

Residual Waste

The Kern County Waste Management Department has been in dialogue with the applicant regarding the potential impacts of the residual materials (fly ash/slag) that could affect landfill capacity of the County and the attainment of diversion goals. To ensure that the impacts to the landfill and county diversion goals are mitigated please include the following conditions:

7.
 - A. Prior to acceptance of residual materials at a Kern County public landfill the applicant shall provide a characterization of waste and secure written approval from the Director of the Kern County Waste Management Department to ensure compatibility with landfill operations and fee schedules.
 - B. HECA shall conduct a market analysis of potential beneficial uses of the waste.
 - C. In the event that any residual materials generated in Kern County is disposed in any California landfill subject to jurisdictional reporting and CalRecycle does not approve an adjustment, HECA shall pay the County a payment based on the following schedule: \$30 a ton (0- 100 tons per day), \$50 a ton (101 – 200 tons per day), \$75 a ton (greater than 200) or other amount as approved by the Board of Supervisors to mitigate impacts to diversion programs. The County shall deposit the money in a Diversion Mitigation Reserve Account that will be used to fund diversion programs in Kern County.

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Kern County supports all forms of renewable energy if appropriately sited with mitigation that provides protection for existing property owners and Kern County interests. Thank you for your partnership and this opportunity for Kern County to contribute to development of alternative energy in California.

Sincerely,



Lorelei H. Oviatt, AICP, Director
Planning & Community Development Department

LHO:jb


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Attachments

cc: Supervisor Ray Watson
County Administrative Office
Ted James, Development Services Agency
Craig Pope-Roads Dept.
Doug Landon-Waste Management Dept.
Chief Dunn-Fire Dept.
Applicant – HECA

COUNTY OF KERN
RESOURCE MANAGEMENT AGENCY
ROADS DEPARTMENT
Office Memorandum

To: Ted James, Director
Planning Department
Attn: Christopher Mynk, Planner III
December 1, 2009

From: Warren D. Maxwell, Transportation Development Engineer
Roads Department 

Subject: Hydrogen Energy of California Project, Hydrogen Energy International, LLC, Map 120-10.

This Department has reviewed the Project Description, Traffic and Transportation chapters for the above-referenced project and is recommending the following:

1. Due to heavy vehicles, a future roadway analysis by the Roads Department is required to identify any roadway improvements along Dairy Road and Adohr Road, to mitigate construction and operational traffic to less than significant. This mitigation, possibly an asphalt overlay, shall be completed prior to issuance of a Certificate of Occupancy.
2. The conversion for Passenger Car Equivalent (PCE) is not an accurate assumption. Use the actual truck traffic (% Heavy Vehicles) in your analysis and revise accordingly.
3. As outlined in Figure 5.12-2, State Route 119 and Tupman Road were not reflected as primary or alternative routes, so why were they included in the analysis? Vehicular traffic shall be limited to designated access roads, as outlined on page 5.12-24 of the Environmental Information Section, unless revised. If not, revise the trip distribution and the analysis to reflect to proposed route along Interstate Route 5, Stockdale Highway, Dairy Road, and Adohr Road.
4. If the route is revised to utilize State Route 119 and Tupman Road, it should be included with this concern addressed. Table 5.10-7, Page 5.10-17, The PM Peak hour Average Delay (sec/veh) for intersection #8 (State Route 119 and Tupman Road) appears to be too high, which may be directly related to the concern expressed in Item #2. Please revise.
5. Project Applicant shall reconstruct the intersection of Dairy Road and Adohr Road to accommodate the turning radii needed by the large trucks accessing the site.
6. Project Applicant shall obtain all necessary Encroachment Permits for any proposed work within the County road right of way. These permits may be obtained from the Roads Department Permits Office.
7. Project Applicant shall obtain all necessary Transportation Permits for any oversized or overweight (heavy) loads that will utilize County maintained roads, which may require California Highway Patrol escort. These permits may be obtained from the Roads Department Permits Office.

Thank you for the opportunity to comment on this project, if you have any questions or comments please contact Steven Young at 862-8860.

Nick Dunn
Fire Chief & Director of Emergency Services



Fire Department Headquarters

5642 Victor Street • Bakersfield, CA 93308 • www.kerncountyfire.org
Telephone 661-391-7000 • FAX 661-399-2915 • TTY Relay 800-735-2929

August 9, 2010

John Nilon, County Administrative Officer
Kern County Administrative Center
1115 Truxtun Avenue
Bakersfield, California, 93301

RE: Hydrogen Energy California Plant

John,

The Kern County Fire Department (Department) has performed an exhaustive review of the proposed 473 acre Hydrogen Energy California (HECA) plant that is to be constructed 1.5 miles northwest of the unincorporated community of Tupman. The HECA plant will gasify petroleum coke (petcoke) (or blends of petcoke and coal) to produce hydrogen to fuel a combustion turbine operating in a combined cycle mode. The Gasification Block feeds a 390-megawatt combined cycle plant generating approximately 250 MW of low-carbon baseload power to the electrical grid.

HECA will be served by fire stations located in Taft, Fellows, McKittrick, and Buttonwillow. Specialized firefighting and rescue resources are located in Metropolitan Bakersfield, approximately 30 miles away.

Using information provided by HECA and commonly available information including MSDS sheets, the Department has determined that Petcoke (15,000 tons of active storage and at least 30 days inactive emergency storage), Molten Sulfur (150,000 gallons), and Methanol (550,000 gallons) provide the greatest hazards due to their hazard characteristics and flammability.

Petcoke is a hydrocarbon based by-product from refineries primary fuel source for HECA. The active petcoke is stored in three 5,000-ton silos and the inactive storage will be stored in a storage pile, covered with a stabilizer. Petcoke is subject to spontaneous heating and combustion. The suitable extinguishing media is large volumes of water or foam. Firefighting may expose firefighters to high heat, smoke, or toxic by-products. A petcoke fire will produce large quantities of dense black smoke containing toxic and hazardous products that will spread out over large areas.

Molten Sulfur is a flammable solid that has a flash point of 404.6° F and a wide flammable limit of 4% to 44%. The molten sulfur is a by-product of the gasification process and will be trucked off site. Approximately 5 trucks per day will be used to remove the molten sulfur. Molten sulfur is highly toxic to the respiratory tract and direct contact will cause severe thermal burns. If large trucks or tank cars become involved in fire, the recommended course of action is to let the fire burn and evacuate ½ mile in all directions.

Methanol is used in the cold startup process. Methanol is a Poison-Class B that has a flash point of 520° F and a flammable range of 6.0% to 36%. Ingestion of as little as one ounce can cause irreversible injury to the nervous system, blindness, or death. Methanol is extremely flammable and may explode in confined space conditions. Water is ineffective in extinguishing fires. The suitable extinguishing media is large volumes of alcohol resistant foam. If large trucks or tank cars become

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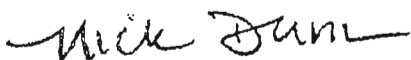
The Department has determined that the risk of an uncontrolled fire at the HECA plant is a significant environmental impact and must be mitigated. This letter outlines the minimum mitigation requested by the Department.

The Department looks forward to working with the management and sub-contractors of HECA during the construction phase of the project. In addition, the Department recognizes the need for HECA and the Department to have a good working relationship during the day-to-day activities at the plant and during any future expansion projects that may occur at the plant.

If additional information is required, please contact Deputy Chief Brian Marshall by phone at (661) 391-7016, by fax at (661) 391-7028, or send an e-mail to bmarshall@co.kern.ca.us.

Respectfully Submitted,

Brian S. Marshall, Deputy Fire Chief



NICK DUNN,
Fire Chief & Director of Emergency Services
Kern County Fire Department

Cc: Nick Dunn, Fire Chief
Dave Goodell, Fire Marshal
Lorelei Oviatt, Kern County Planning Department
Greg Fenton, Engineering and Survey Services



KERN COUNTY WASTE MANAGEMENT DEPARTMENT

Douglas E. Landon, Director
2700 "M" Street, Suite 500
Bakersfield, CA 93301-2372
(661) 862-8900
(800) 552-KERN (option 6)
Fax: (661) 862-8905
<http://www.co.kern.ca.us/wmd/>

September 1, 2010

Mr. Rod Jones, Project Manager
Systems Assessment & Facility Siting Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814

Dear Mr. Jones:

SUBJECT: Hydrogen Energy California - Revised Application for Certification

Thank you for the opportunity to comment on the Revised Application for Certification of the Hydrogen Energy California plant. The Project will gasify petroleum coke (petcoke) (or blends of petcoke and coal, as needed) to produce hydrogen to fuel a low carbon combustion turbine operating a 390 gross megawatt (MW) plant with a net electrical generation output of 250 MW. The Gasification Block will also capture approximately 90 percent of the carbon from the raw syngas at steady-state operation, which will be transported to the Elk Hills Field for CO₂ Enhanced Oil Recovery and Sequestration. In addition, approximately 100 MW of natural gas generated peaking power will be available from the Project.

The Project is located on a 473 acre site approximately seven miles west of the City of Bakersfield in the unincorporated area of Kern County.

The Kern County Waste Management Department (KCWMD) operates the County owned public solid waste facilities, and is the Responsible Agency for maintaining the unincorporated Kern County jurisdiction's compliance with the Integrated Waste Management Plan (IWMP). The IWMP includes elements dealing with source reduction and recycling of waste, disposal facility siting criteria and non-disposal facility identification.

The KCWMD has reviewed the proposed Project. The KCWMD focuses on, but is not limited to, two questions identified in the CEQA checklist related to solid waste for which every project is to be evaluated. These questions include:

1. Would the Project be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?
2. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain performance objectives for public facilities?

This comment letter will address each question in order.

**Taft Recycling and Sanitary Landfill
Permit/Operational Conditions**

	Permit	Current Operation	HECA Project
Daily Tonnage (tpd)	419	94	156 - 405
Daily Traffic (vpd)	338	54	
Capacity (yd ³)			

During the first half of 2010, the Taft Recycling and Sanitary Landfill (RSLF) accepted an average of 94 tons per day. A 156 tpd to 405 tpd increase at the facility would significantly impact the permitted capacity and the operational conditions at the facility. As stated above however, the KCWMD operates the County owned public solid waste facilities. **The KCWMD requests that the HECA waste stream be subdivided between several facilities to reduce the potential impacts to any one facility. Facilities to be considered include the Bakersfield Metropolitan (Bena) RSLF, the Shafter-Wasco RSLF and the Taft RSLF.** The HECA Project may also consider several private facilities, including but not limited to, Clean Harbors, H. M. Holloway or McKittrick Disposal.

Additionally, prior to the acceptance of residual material from the proposed Project at any Kern County public landfill, the applicant shall supply the KCWMD a characterization of the waste for chemical and physical characteristics, and secure written approval from the Director of the KCWMD to ensure compatibility with landfill operations and fee schedules. A special handling fee may be assessed pending results of the characterization and impacts on landfill operations.

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain performance objectives for public facilities?

The HECA Project is described as a gasification process. The Project Description projects that the facility will generate between 156 tpd and 405 tpd of non-hazardous industrial waste that could be disposed in a Class III solid waste facility. The California Integrated Waste Management Act (AB 939) required all California cities, counties and approved regional solid waste management agencies responsible for enacting plans and implementing programs to divert 25 percent of their solid waste by 1995 and 50 percent by year 2000.

In 2008, the California State Senate passed Senate Bill 1016 (SB 1016) to make the process of goal measurement (obtaining and maintaining a 50 percent diversion rate) established by AB 939 simpler, more timely, and more accurate. SB 1016 accomplishes this by changing to a disposal-based indicator, the per capita disposal rate, which uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The Kern County unincorporated jurisdiction's per capita disposal equivalent to a 50 percent diversion rate was set at 7.6 lbs/person/day.

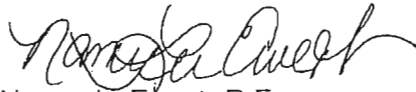
2. Based on the characteristics of the gasification solid, HECA shall conduct a market analysis of potential beneficial uses of the waste.
3. If residual gasification solids or other waste products, are subject to Jurisdictional Reporting and credited to the Kern County unincorporated area as disposal, HECA shall compensate Kern County \$75/ton for implementation of additional recycling facilities and programs to maintain compliance with State diversion mandates. This is in addition to any gate/tipping fees for disposal.

With the inclusion of the above mitigation measures, the Kern County Waste Management System may be able to accept the residual gasification solids and other waste materials generated by the HECA Project. However, the Project will still result in a significant impact to the unincorporated area of Kern County to comply with SB 1016 and AB 939 by resulting in a significant increase in per capita disposal, and reducing the diversion and recycling rate below the 50 percent mandate achieved by the County.

The KCWMD reserves the right to refuse to accept any load that it deems to be unacceptable based on its potential impact to the health or safety of the customers, employees and/or environment. The KCWMD may provide additional comments if necessary.

If you have any further questions, please contact Donn Ferguson at (661)-862-8765.

Sincerely,



Nancy L. Ewert, P.E.
Senior Engineering Manager

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CC: Tony Bonanno; Brian Klatt
Amy Rutledge (KCEHD)
Bill O'Rullivan (KCEHD)
Lorelei Oviatt (KCPD)
WMD-PADS
WMD-IWMP (COR)