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Responses to September 2013 Workshop Requests: Traffic and Transportation

Amended Application for Certification for HYDROGEN ENERGY CALIFORNIA (08-AFC-8A) Kern County, California

Prepared for:
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hydrogen energy california

Submitted to:

California Energy Commission

U.S Department of Energy

Prepared by:

URS

November 2013

RESPONSES TO CEC WORKSHOP REQUESTS REGARDING TRAFFIC AND TRANSPORTATION

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN RESPONSES

CEC	California Energy Commission
CPUC	California Public Utilities Commission
DEIS	Draft Environmental Impact Statement
HECA	Hydrogen Energy California
LOS	Level of Service
PSA	Preliminary Staff Assessment
sec/veh	seconds per vehicle
SR	State Route
TCP	Traffic Control Plan

RESPONSES TO WORKSHOP REQUESTS

BACKGROUND

During the Preliminary Staff Assessment (PSA)/Draft Environmental Impact Statement (DEIS) Workshop held in September 2013, California Energy Commission (CEC) Staff requested additional information regarding traffic and transportation. Applicant's responses to these workshop requests are provided herein.

WORKSHOP REQUEST

TRANS-1. Application to Public Utilities Commission (CPUC) for rail crossings

RESPONSE

It is Applicant's understanding that CEC Staff agrees that any California Public Utilities Commission (CPUC) approval of rail crossings that would typically be required for a rail spur such as that proposed for the Project is subsumed within the CEC's exclusive jurisdiction over the Project and related facilities. Therefore, Applicant understands this request to be for a "mock" application, the only purpose of which would be to ensure that the CPUC has been provided all of the information that it would receive in a formal application, so that the CPUC is in a position to provide input to the CEC. Applicant has docketed the following, which provide information required by the CPUC's formal application:

- Responses to PSA/DEIS Information Requests, Set 2 docketed on August 29, 2013;
- Response to CEC Data Request A155, docketed on February 26, 2013; and
- Supplemental Response to CEC Data Request A155, docketed on March 20, 2013.

Applicant does not believe that a mock application is necessary, but will reach out to the CPUC Staff to determine if they require any further information to advise the CEC.

WORKSHOP REQUEST

TRANS-2. Farm equipment traffic along Dairy Road

RESPONSE

Traffic impacts have been evaluated extensively, and appropriate mitigation measures have been identified in coordination with relevant agencies, including Kern County Roads Department and Caltrans.

The Applicant acknowledges that farm-related traffic use Dairy Road. Dairy Road is a local County road, and the traffic traveling along this segment, including farm equipment, vehicles, and trucks, must follow all vehicular codes and laws. Therefore, Project-related traffic will travel in a safe, lawful manner, which includes avoiding conflicts with slow-moving farm vehicles and operating safely around those vehicles. As indicated in the PSA/DEIS, Condition of Certification TRANS-1 would ensure that a Traffic Control Plan (TCP) is prepared to address the safe operation of heavy trucks and farm machinery sharing the same roadway.

WORKSHOP REQUEST

TRANS-3. School bus traffic

RESPONSE

Since the September 2013 Workshop, the Applicant has conducted several meetings with regional school district representatives to discuss the Project's proposed construction and operational traffic. In an effort to coordinate school buses with Project traffic, school district representatives provided information on current school bus routes and stops. URS Corporation reviewed the bus routes and stops identified by the school districts for both construction and operational trucking. School bus and Project truck routes will overlap on segments of the following roadways, as identified in the traffic analysis:

- State Route (SR) 43
- SR 58
- Stockdale Highway
- Wasco Way
- Tupman Road
- Adohr Road
- Dairy Road

Consistent with the existing truck traffic along these roadway segments, Project-related traffic will also follow the California vehicle code and observe laws, including bus stopping regulations. The major roadways listed above (i.e., SR 43, SR 58, and Stockdale Highway) currently accommodate truck traffic and are designated truck routes. The minor roadways around the Project Site (i.e., Wasco Way, Tupman Road, Adohr Road, and Dairy Road) will experience an increase in truck traffic, and safety protocols will be in place to train drivers to be proactive in ensuring safety for school bus traffic. Further, as indicated in the PSA/DEIS, Project-related truck trips would not increase hazards to school traffic because truck trips would be spread throughout the day, and not conglomerated into morning or afternoon hours.

In response to questions regarding the coal delivery route specifically, Alternative 2 (Truck Option) will employ 13 dedicated trucks to deliver an average of approximately 150 one-way trips of coal to the Project Site each day. Therefore, at any given time, there will be only 13 additional trucks on the entire coal route as a consequence of coal delivery to the Project Site.

WORKSHOP REQUEST

TRANS-4. Tule Fog

RESPONSE

Traffic generated by the project will travel routes that experience tule fog during certain times of the year. Project traffic during tule fog events shall be handled according to applicable provisions specified under Condition of Certification TRANS-1, which requires implementation of a TCP. Traffic accessing the Project Site will follow the same safety precautions as those required of all motorists. As indicated in the PSA/DEIS, California Vehicle Code Sections 24400 through 24411 require the equipping and use of lights during inclement weather, and Section 22350 requires a person to not drive a vehicle at a speed greater than is reasonable or prudent for weather and visibility. Truck drivers complying with regulations of the California Vehicle Code would ensure safe operation of trucks, and would not create a traffic hazard associated with tule fog.

WORKSHOP REQUEST

TRANS-5. Operations at SR 43/Los Angeles Avenue (City of Shafter)

RESPONSE

The following traffic impact evaluation addresses comments regarding the intersection of SR 43–Santa Fe Way/Los Angeles Street, and safety concerns related to the Project's contribution of additional traffic at the intersection.

The intersection is approximately 1 mile south of the City of Shafter, and operates as two separate intersections with approximately 80 feet of separation. SR 43 curves through the area, connecting the two intersections in an S-type configuration. To analyze this intersection for this traffic impact evaluation, the intersection was analyzed as two separate intersections: SR 43/ Los Angeles Street (western intersection); and Santa Fe Way-SR 43/Los Angeles Street (eastern intersection). Truck traffic travels primarily along SR 43 and makes a northbound right from the western intersection, then turns eastbound left at the easternmost intersection to continue northbound on SR 43. For the southbound SR 43 traffic, the majority of traffic diverges to the right lane before the eastern intersection, which becomes southbound through SR 43 traffic at the western intersection. Northbound and southbound movements along Santa Fe Way are also significant, but these movements are not the central cause of safety concerns.

For the purposes of this analysis, the intersections were analyzed as all-way-stop–controlled intersections. Turn-movement traffic volumes were obtained from the Enos Properties Traffic Impact Study prepared by McIntosh & Associates in 2008. The turn volumes were compared to 2010 Kern Council of Government peak-hour roadway volumes along Santa Fe Way; and Caltrans 2012 peak-hour highway volumes along SR 43. The turn volumes were conservatively adjusted to better reflect recent data along SR 43 and Santa Fe Way. If the 2008 turn-movements volumes were greater than the calculated 2012 volumes, the 2008 volumes were used to provide a conservative analysis.

As shown in the results tables below, the intersections operate at level of service (LOS) C or better during 2016 Construction conditions, with minimal impact contributed by the Hydrogen Energy California (HECA) Project. During the 2017 analysis condition, the study intersections operate at LOS D or better, with no significant impact contributed by the HECA Project under both the rail and trucking alternatives. LOS D is an acceptable operating condition for intersections in the study area.

Although it is recognized that this location has been a concern for local government agencies, the HECA Project does not contribute additional significant impact to these intersections, and does not warrant mitigation improvements related to the project.

Table 1
Existing Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1. SR 43/Los Angeles Street (western intersection)	Unsignalized	9.1	A	9.9	A
2. Santa Fe Way-SR 43/Los Angeles Street (eastern intersection)	Unsignalized	13.1	B	17.4	C

Notes:

a.m./p.m. = morning/evening
LOS = level of service
sec/veh = seconds per vehicle
SR = State Route

Table 2
Year 2016 No Project Conditions Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1. SR 43/Los Angeles Street (western intersection)	Unsignalized	9.4	A	10.5	B
2. Santa Fe Way-SR 43/Los Angeles Street (eastern intersection)	Unsignalized	15.3	B	23.3	C

Notes:

a.m./p.m. = morning/evening
LOS = level of service
sec/veh = seconds per vehicle
SR = State Route

Table 3
Year 2016 Project Construction Conditions Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1. SR 43/Los Angeles Street (western intersection)	Unsignalized	9.4	A	10.5	B
2. Santa Fe Way-SR 43/Los Angeles Street (eastern intersection)	Unsignalized	15.3	B	23.3	C

Notes:

a.m./p.m. = morning/evening
LOS = level of service
sec/veh = seconds per vehicle
SR = State Route

Table 4
Year 2017 No Project Conditions Intersection Levels of Service

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1. SR 43/Los Angeles Street (western intersection)	Unsignalized	9.5	A	10.6	B
2. Santa Fe Way-SR 43/Los Angeles Street (eastern intersection)	Unsignalized	15.9	B	25.1	D

Notes:

a.m./p.m. = morning/evening
LOS = level of service
sec/veh = seconds per vehicle
SR = State Route

Table 5
Year 2017 Project Operations Conditions – Alternative 1 (Rail)

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1. SR 43/Los Angeles Street (western intersection)	Unsignalized	9.5	A	10.7	B
2. Santa Fe Way-SR 43/Los Angeles Street (eastern intersection)	Unsignalized	16.0	B	25.8	D

Notes:

a.m./p.m. = morning/evening
LOS = level of service
sec/veh = seconds per vehicle
SR = State Route

Table 6
Year 2017 Project Operations Conditions – Alternative 2

Intersection	Control	a.m. Peak Hour		p.m. Peak Hour	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1. SR 43/Los Angeles Street (western intersection)	Unsignalized	10.1	B	10.9	B
2. Santa Fe Way-SR 43/Los Angeles Street (eastern intersection)	Unsignalized	17.9	B	27.6	D

Notes:

a.m./p.m. = morning/evening
LOS = level of service
sec/veh = seconds per vehicle
SR = State Route

INFORMATION REQUEST

TRANS-6. Potential expansion of Wasco coal facility

No expansion of the Wasco facility is required to service the HECA Project. This has been addressed in the October 2013 document entitled *Wasco Coal Terminal, Supplemental Environmental Analysis Related to Providing Service to Hydrogen Energy California Project*, prepared by Insight Environmental, and docketed on October 19, 2013.