California Energy Commission
DOCKETED
08-AFC-8A

TN # 66029

JUN 28 2012

HECA Applications for Notice of Proposed Construction or Alteration (Off Airport)

Submitted May 25, 2012



# Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12

## Project Summary: HYDRO-000206286-12

Structure	City, State	Lat/Long	Мар	Actions	7460-2 Received	Latest Letter
#C - Air Separation Column Can Accepted 2012-AWP-4417-OE	Bakersfield, CA	35° 19' 56.72" 119° 23' 36.46"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#5 - Heat Recovery Steam Gener Accepted 2012-AWP-4418-OE	Bakersfield, CA	35° 19' 55.48" 119° 23' 25.87"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#9 - CO2 Vent Accepted 2012-AWP-4419-OE	Bakersfield, CA	35° 19' 57.25" 119° 23' 18.92"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#10 - Sulfur Recovery Unit Fla Accepted 2012-AWP-4420-OE	Bakersfield, CA	35° 20' 6.49" 119° 23' 21.88"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#11 - Gasification Flare Accepted 2012-AWP-4421-OE	Bakersfield, CA	35° 20' 6.61" 119° 23' 21.88"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#12 - Rectisol Flare Accepted 2012-AWP-4422-OE	Bakersfield, CA	35° 20' 6.59" 119° 23' 17.74"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#13 - Feedstock Dryer Accepted 2012-AWP-4423-OE	Bakersfield, CA	35° 19' 55.41" 119° 23' 23.24"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#G - Gasification Structure Accepted 2012-AWP-4424-OE	Bakersfield, CA	35° 19' 56.27" 119° 23' 22.96"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None
#S - Acid Gas Removal Methanol Accepted 2012-AWP-4425-OE	Bakersfield, CA	35° 19' 56.99" 119° 23' 18.90"	Show Map	Create Fax Cover Upload a PDF Add 7460-2		None

Upload a PDF to the Project



Project Submission Success Project Name: HYDRO-000206286-12

Project HYDRO-000206286-12 has been submitted successfully to the FAA.

Your filing is assigned Aeronautical Study Number (ASN): 2012-AWP-4417-OE

2012-AWP-4417-OE 2012-AWP-4418-OE 2012-AWP-4420-OE 2012-AWP-4420-OE 2012-AWP-4421-OE 2012-AWP-4422-OE 2012-AWP-4423-OE 2012-AWP-4424-OE 2012-AWP-4425-OE

Please refer to the assigned ASN on all future inquiries regarding this filing.

Please return to the system at a later date for status updates.

HECA Project May 2012 FAA Project Name: HYDRO-000206286-12

# **Details of HECA Project Structures** Exceeding 200 Feet Above Ground Level



Map ID	Prior FAA  Map ID Aeronautical Study	utical Study Description of Proposed Structure Stru	Structure Type	Site Elevation	Total Structure	Overall Structure Height	(Nearest	Latitude Point to Runway 29	at L62)	(Nearest I	Longitude Point to Runway 29	9 at L62)
Map 13	No.		on dotale Type	AMSL (Feet)	Height AGL (Feet)	AMSL (Feet)	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
5	2010-AWP-1092-OE	Heat Recovery Steam Generator Stack	Stack	289	213	502	35	19	55.486 N	119	23	25.874 W
9	2010-AWP-1091-OE	CO <sub>2</sub> Vent	Stack	289	260	549	35	19	57.257 N	119	23	18.927 W
10	2010-AWP-1097-OE	Sulfur Recovery Unit Flare	Stack	289	250	539	35	20	6.492 N	119	23	21.885 W
11	2010-AWP-1088-OE	Gasification Flare	Stack	289	250	539	35	20	6.611 N	119	23	21.887 W
12	2010-AWP-1087-OE	Rectisol Flare	Stack	289	250	539	35	20	6.593 N	119	23	17.742 W
13	NA	Feedstock Dryer	Building	289	305	594	35	19	55.419 N	119	23	23.240 W
С	2010-AWP-1090-OE	Air Separation Column Can	Building	289	200	489	35	19	56.724 N	119	23	36.460 W
G	2010-AWP-1096-OE	Gasification Structure	Building	289	305	594	35	19	56.278 N	119	23	22.969 W
S	2010-AWP-1089-OE	Acid Gas Removal Methanol Wash Column	Building	289	235	524	35	19	56.990 N	119	23	18.902 W

#### Notes:

- Notes:

  1. FAA project name of prior aeronautical studies completed for the HECA Project was HYDRO-000138467-10

  2. Horizontal datum of latitude and longitude is NAD 83

  3. Latitude and longitude data represents the nearest point of the proposed structure to the nearest runway (approach end of Runway 29 at Elk Hills-Buttonwillow Airport [L62])

  4. The highest site (ground) elevation is 289 feet AMSL

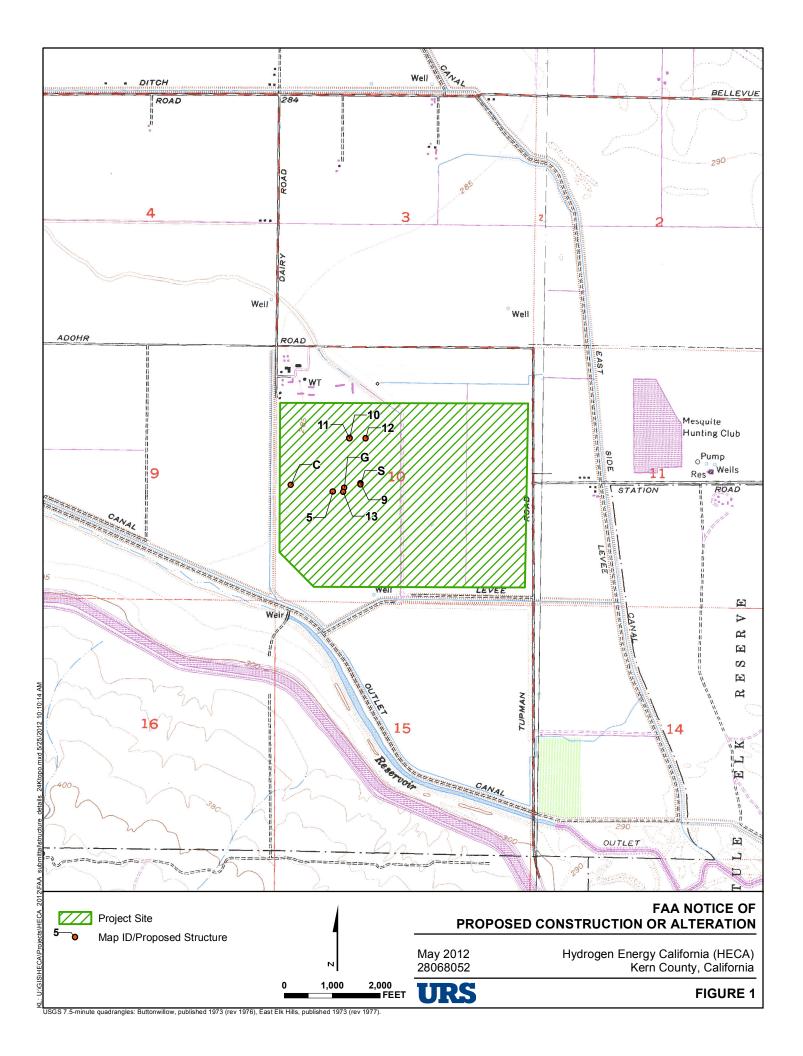
  5. Total structure height includes all appurtenances

  AGL = Above ground level

AMSL = Above mean sea level

CO<sub>2</sub> = Carbon dioxide

FAA = Federal Aviation Administration





## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

# Details for Case : #C - Air Separation Column Can

Case Status			
ASN: 2012-AWP-4417-OE		Date Accepted:	05/25/2012
Status: Accepted		Date Determined	:
		Letters:	None
		Documents:	05/25/2012 Fig-1_HECA_FAA.pdf
			Project Documents: 05/25/2012 FAA Structure Hei
			05/25/2012 Fig-1_HECA_FAA.pdf
Construction / Alteration Information		Structure Sumn	nary
Notice Of: Construction		Structure Type:	Building
Duration: Permanent		Structure Name:	#C - Air Separation Column Can
		NOTAM Number:	#C - All Separation Column Can
if Temporary: Months: Days: Work Schedule - Start: 06/01/2013		FCC Number:	
Work Schedule - Start: 06/01/2013  Work Schedule - End: 02/28/2017		Prior ASN:	2010-AWP-1090-OE
	wine and making to the 5000	PHOLASIV:	2010-AWF-1090-0E
*For temporary cranes-Does the permanent structure req To find out, use the Notice Criteria Tool. If separate notice If it is not filed, please state the reason in the Description	e is required, please ensure it is filed.		
State Filing: Not filed with State			
Structure Details		Common Frequ	ency Bands
Latitude:	35° 19' 56.72" N	Low Freq	High Freq Freq Unit ERP ERP Uni
Longitude:	119° 23' 36.46" W		
Horizontal Datum:	NAD83	Specific Freque	ncies
Site Elevation (SE):	289 (nearest foot)		
Structure Height (AGL):	200 (nearest foot)		
* If the entered AGL is a proposed change to an existing structure's height include the current			
AGL in the Description of Proposal.			
Requested Marking/Lighting:	None		
Other			
Recommended Marking/Lighting:			
Current Marking/Lighting:	N/A New Structure		
Other			
Nearest City:	Bakersfield		
Nearest State:	California		
Description of Location:  On the Project Summary page upload any certified survey	Bakersfield and 2 miles northwest of the unincorporated community of Tupman in Kern County, CA. The street address of the Project Site is 7361 Adohr Road, Buttonwillow, CA		
Description of Proposal:	93206. Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.		



## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #5 - Heat Recovery Steam Generator Stack

Case Status					
ASN: 2012-AWP-4418-OE		Date Accepted:	05/25/2012		
Status: Accepted		Date Determined:			
		Letters:	None		
		Documents:	None		
			Project Documents: 05/25/2012 FAA Struc	cture Hei	
			05/25/2012 Fig-1_HE		
			_		
Construction / Alteration Information		Structure Summ	ary		
Notice Of: Construction		Structure Type:	Stack		
Duration: Permanent		Structure Name:	#5 - Heat Recovery Steam	Generator Stack	
if Temporary: Months: Days:		NOTAM Number:			
Work Schedule - Start: 06/01/2013		FCC Number:			
Work Schedule - End: 02/28/2017		Prior ASN:	2010-AWP-1092-OE		
*For temporary cranes-Does the permanent structure requ To find out, use the Notice Criteria Tool. If separate notice If it is not filed, please state the reason in the Description	is required, please ensure it is filed.				
State Filing: Not filed with State					
Structure Details		Common Freque	ency Bands		
Latitude:	35° 19' 55.48" N	Low Freq	High Freq	Freq Unit ERP	ERP Uni
Longitude:	119° 23' 25.87" W	Specific Frequen	noine		
Horizontal Datum:	NAD83	Specific Frequen	icies		
Site Elevation (SE):	289 (nearest foot)				
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.	213 (nearest foot)				
Requested Marking/Lighting:	None				
Other:					
Recommended Marking/Lighting:					
Current Marking/Lighting:	N/A New Structure				
Other:					
Nearest City:	Bakersfield				
Nearest State:	California				
Description of Location:  On the Project Summary page upload any certified survey.	The Project Site is located approximately 7 miles west of the outermost edge of the city of Bakersfield and 2 miles northwest of the unincorporated community of Tupman in Kern County, CA. The street address of the Project Site is 7361 Adohr Road, Buttonwillow, CA 93206.				
Description of Proposal:	Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.				



## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

Details for Case: #9 - CO2 Vent

Case Status						
ASN: 2012-AWP-4419-OE	E		Date Accepted:	05/25/2012		
Status: Accepted			Date Determined:			
			Letters:	None		
			Documents:	None		
				Project Documents: 05/25/2012 TFAA St	ructure Hei	
				05/25/2012 Fig-1_l		
Construction / Alteration Inform	nation		Structure Summ	arv		
Notice Of: Construction				Stack		
Duration: Permanent				#9 - CO2 Vent		
	Jave.		NOTAM Number:	# 9 = CO2 Vent		
if Temporary : Months: E	-					
Work Schedule - Start: 06/01/2013			FCC Number:	0040 4110 4004 05		
Work Schedule - End: 02/28/2017			Prior ASN:	2010-AWP-1091-OE		
*For temporary cranes-Does the pe To find out, use the Notice Criteria I If it is not filed, please state the rea	Tool. If separate notice	is required, please ensure it is filed.				
State Filing: Not filed wit	th State					
Structure Details			Common Freque			
Latitude:		35° 19' 57.25" N	Low Freq	High Freq	Freq Unit ERP	ERP Uni
Longitude:		119° 23' 18.92" W	Specific Frequen	icies		
Horizontal Datum:		NAD83				
Site Elevation (SE):		289 (nearest foot)				
Structure Height (AGL):  * If the entered AGL is a proposed of existing structure's height include the AGL in the Description of Proposal.		260 (nearest foot)				
Requested Marking/Lighting:		None				
	Other:					
Recommended Marking/Lighting:						
Current Marking/Lighting:		N/A New Structure				
	Other:					
Nearest City:		Bakersfield				
Nearest State:		California				
Description of Location: On the Project Summary page uploa	ad any certified survey.	The Project Site is located approximately 7 miles west of the outermost edge of the city of Bakersfield and 2 miles northwest of the unincorporated community of Tupman in Kern County, CA. The street address of the Project Site is 7361 Adohr Road, Buttonwillow, CA 93206.				
Description of Proposal:		Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.				



## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #10 - Sulfur Recovery Unit Flare

Case Status					
ASN: 2012-AWP-4420-OE		Date Accepted:	05/25/2012		
Status: Accepted		Date Determined:			
		Letters:	None		
		Documents:	None		
			Project Documents: 05/25/2012 FAA Stru	ucture Hei	
			05/25/2012 Fig-1_HE		
Construction / Alteration Information		Structure Summ	arv		
Notice Of: Construction		Structure Type:	Stack		
Duration: Permanent			#10 - Sulfur Recovery Unit	Flare	
if Temporary: Months: Days:		NOTAM Number:			
Work Schedule - Start: 06/01/2013		FCC Number:			
Work Schedule - End: 02/28/2017		Prior ASN:	2010-AWP-1097-OE		
*For temporary cranes-Does the permanent structure requ To find out, use the Notice Criteria Tool. If separate notice If it is not filed, please state the reason in the Description of	is required, please ensure it is filed.	1116.116.11	2010 /1111 10/1 02		
State Filing: Not filed with State					
Structure Details		Common Freque	ncy Bands		
Latitude:	35° 20' 6.49" N	Low Freq	High Freq	Freq Unit ERP	ERP Uni
Longitude:	119° 23' 21.88" W	Specific Frequen	clas		
Horizontal Datum:	NAD83	Specific Frequen	lcies		
Site Elevation (SE):	289 (nearest foot)				
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.	250 (nearest foot)				
Requested Marking/Lighting:	None				
Other:					
Recommended Marking/Lighting:					
Current Marking/Lighting:	N/A New Structure				
Other:					
Nearest City:	Bakersfield				
Nearest State:	California				
Description of Location:	The Project Site is located approximately 7 miles				
On the Project Summary page upload any certified survey.	west of the outermost edge of the city of Bakersfield and 2 miles northwest of the unincorporated community of Tupman in Kern County, CA. The street address of the Project Site is 7361 Adohr Road, Buttonwillow, CA 93206.				
Description of Proposal:	Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.				



## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #11 - Gasification Flare

Case Status		
ASN: 2012-AWP-4421-OE		Date Accepted: 05/25/2012
Status: Accepted		Date Determined:
		Letters: None
		Documents: None
		Project Documents: 05/25/2012 A Structure Hei
		05/25/2012 Fig-1_HECA_FAA.pdf
Construction / Alteration Information		Structure Summary
Notice Of: Construction		Structure Type: Stack
Duration: Permanent		Structure Name: #11 - Gasification Flare
if Temporary: Months: Days:		NOTAM Number:
Work Schedule - Start: 06/01/2013		FCC Number:
Work Schedule - End: 02/28/2017		Prior ASN: 2010-AWP-1088-OE
*For temporary cranes-Does the permanent structure To find out, use the Notice Criteria Tool. If separate n If it is not filed, please state the reason in the Descrip	otice is required, please ensure it is filed.	
State Filing: Not filed with State		
Structure Details		Common Frequency Bands
Latitude:	35° 20' 6.61" N	Low Freq High Freq Freq Unit ERP ERP U
Longitude:	119° 23' 21.88" W	Specific Frequencies
Horizontal Datum:	NAD83	opeoo . requestoso
Site Elevation (SE):	289 (nearest foot)	
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.	250 (nearest foot)	
Requested Marking/Lighting:	None	
	ner:	
Recommended Marking/Lighting:		
Current Marking/Lighting:	N/A New Structure	
Ot	ner:	
Nearest City:	Bakersfield	
Nearest State:	California	
Description of Location:	The Project Site is located approximately 7 miles	
On the Project Summary page upload any certified su		
Description of Proposal:	Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.	
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## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #12 - Rectisol Flare

Case Status					
ASN: 2012-AWP-4422-OE		Date Accepted:	05/25/2012		
Status: Accepted		Date Determined:			
		Letters:	None		
		Documents:	None		
			Project Documents: 05/25/2012 FAA Str	ructure Hei	
			05/25/2012 Fig-1_F		
Construction / Alteration Information		Structure Summ	ary		
Notice Of: Construction		Structure Type:	Stack		
Duration: Permanent		Structure Name:	#12 - Rectisol Flare		
if Temporary: Months: Days:		NOTAM Number:			
Work Schedule - Start: 06/01/2013		FCC Number:			
Work Schedule - End: 02/28/2017		Prior ASN:	2010-AWP-1087-OE		
*For temporary cranes-Does the permanent structure req To find out, use the Notice Criteria Tool. If separate notice If it is not filed, please state the reason in the Description	is required, please ensure it is filed.				
State Filing: Not filed with State					
Structure Details		Common Freque	ncy Bands		
Latitude:	35° 20' 6.59" N	Low Freq	High Freq	Freq Unit ERP	ERP Uni
Longitude:	119° 23' 17.74" W	Specific Frequen	icies		
Horizontal Datum:	NAD83	opcomo i requen			
Site Elevation (SE):	289 (nearest foot)				
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.	250 (nearest foot)				
Requested Marking/Lighting:	None				
Other					
Recommended Marking/Lighting:					
Current Marking/Lighting:	N/A New Structure				
Other					
Nearest City:	Bakersfield				
Nearest State:	California				
Description of Location:	The Project Site is located approximately 7 miles				
On the Project Summary page upload any certified survey					
Description of Proposal:	Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.				



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## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #13 - Feedstock Dryer

Case Status					
ASN: 2012-AWP-4423-OE		Date Accepted:	05/25/2012		
Status: Accepted		Date Determined:			
		Letters:	None		
		Documents:	None		
			Project Documents: 05/25/2012 FAA Str	ructure Hei	
			05/25/2012 Fig-1_F		
			_		
Construction / Alteration Information		Structure Summ	ary		
Notice Of: Construction		Structure Type:	Building		
Duration: Permanent		Structure Name:	#13 - Feedstock Dryer		
if Temporary: Months: Days:		NOTAM Number:			
Work Schedule - Start: 06/01/2013		FCC Number:			
Work Schedule - End: 02/28/2017		Prior ASN:			
*For temporary cranes-Does the permanent structure ro To find out, use the Notice Criteria Tool. If separate not If it is not filed, please state the reason in the Descripti	ce is required, please ensure it is filed.				
State Filing: Not filed with State					
Structure Details		Common Freque	ency Bands		
Latitude:	35° 19' 55.41" N	Low Freq	High Freq	Freq Unit ERP	ERP Uni
Longitude:	119° 23' 23.24" W	Specific Frequen	ncies		
Horizontal Datum:	NAD83	Specific Frequer	icies		
Site Elevation (SE):	289 (nearest foot)				
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.	305 (nearest foot)				
Requested Marking/Lighting:	None				
Othe	r:				
Recommended Marking/Lighting:					
Current Marking/Lighting:	N/A New Structure				
Othe	r:				
Nearest City:	Bakersfield				
Nearest State:	California				
Description of Location:	The Project Site is located approximately 7 miles				
On the Project Summary page upload any certified surv					
Description of Proposal:	Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.				



Federal Aviation « OE/AAA

## Notice of Proposed Construction or Alteration - Off Airport

Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #G - Gasification Structure

Case Status							
ASN: 2012-AWP-4424-OE		Date Accepted:	05/25/2012				
Status: Accepted			Date Determined:				
			Letters:	None			
			Documents:	None			
				Project Documents: 05/25/2012 FAA Stru	acture Hei		
				05/25/2012 Tig-1_HE	ECA_FAA.pdf		
				_			
Construction / Alteration Information			Structure Summ	ary			
Notice Of: Construction			Structure Type:	Building			
Duration: Permanent			Structure Name:	#G - Gasification Structure			
if Temporary: Months: Days:			NOTAM Number:	I Number:			
Work Schedule - Start: 06/01/2013			FCC Number:				
Work Schedule - End: 02/28/2017			Prior ASN:	2010-AWP-1096-OE			
*For temporary cranes-Does the permanent struct To find out, use the Notice Criteria Tool. If separat If it is not filed, please state the reason in the Des	te notice	is required, please ensure it is filed.					
State Filing: Not filed with State							
Structure Details			Common Freque				
Latitude:		35° 19' 56.27" N	Low Freq	High Freq	Freq Unit	ERP	ERP Uni
Longitude:		119° 23' 22.96" W	Specific Frequen	icies			
Horizontal Datum:		NAD83					
Site Elevation (SE):		289 (nearest foot)					
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.		305 (nearest foot)					
Requested Marking/Lighting:		None					
· · · · · · · · · · · · · · · · · · ·	Other :						
Recommended Marking/Lighting:							
Current Marking/Lighting:		N/A New Structure					
	Other :						
Nearest City:		Bakersfield					
Nearest State:		California					
Description of Location:		The Project Site is located approximately 7 miles					
On the Project Summary page upload any certified	i survey.	west of the outermost edge of the city of Bakersfield and 2 miles northwest of the unincorporated community of Tupman in Kern County, CA. The street address of the Project Site is 7361 Adohr Road, Buttonwillow, CA 93206.					
Description of Proposal:		Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.					



# Notice of Proposed Construction or Alteration - Off Airport

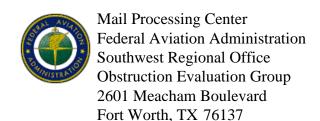
Project Name: HYDRO-000206286-12 Sponsor: Hydrogen Energy California LLC

#### Details for Case: #S - Acid Gas Removal Methanol Wash Column

Case Status					
ASN: 2012-AWP-4425-OE		Date Accepted:	05/25/2012		
Status: Accepted		Date Determined:			
		Letters:	None		
		Documents:	None		
			Project Documents: 05/25/2012 FAA Structure Hei		
			05/25/2012 Fig-1_HECA_FAA.pdf		
Construction / Alteration Information		Structuro Summ	2257		
Notice Of: Construction		Structure Summary			
		Structure Type:	Building		
Duration: Permanent		Structure Name:	#S - Acid Gas Removal Methanol Wash Column		
if Temporary : Months: Days:		NOTAM Number:			
Work Schedule - Start: 06/01/2013		FCC Number:			
Work Schedule - End: 02/28/2017		Prior ASN:	2010-AWP-1089-OE		
*For temporary cranes-Does the permanent structure requ To find out, use the Notice Criteria Tool. If separate notice If it is not filed, please state the reason in the Description	is required, please ensure it is filed.				
State Filing: Not filed with State					
Structure Details		Common Freque	ency Bands		
Latitude:	35° 19' 56.99" N	Low Free	q High Freq Freq Unit ERP ERP Uni		
Longitude:	119° 23' 18.90" W	Caraifia Faranca	!		
Horizontal Datum:	NAD83	Specific Freque	ncies		
Site Elevation (SE):	289 (nearest foot)				
Structure Height (AGL): * If the entered AGL is a proposed change to an existing structure's height include the current AGL in the Description of Proposal.	235 (nearest foot)				
Requested Marking/Lighting:	None				
Other:					
Recommended Marking/Lighting:					
Current Marking/Lighting:	N/A New Structure				
Other:					
Nearest City:	Bakersfield				
Nearest State:	California				
Description of Location:  On the Project Summary page upload any certified survey.	The Project Site is located approximately 7 miles west of the outermost edge of the city of Bakersfield and 2 miles northwest of the unincorporated community of Tupman in Kern County, CA. The street address of the Project Site is 7361 Adohr Road, Buttonwillow, CA 93206.				
Description of Proposal:	Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.				

Federal Aviation Administration Determinations of No Hazard to Air Navigation

Received June 25, 2012



Aeronautical Study No. 2012-AWP-4417-OE Prior Study No. 2010-AWP-1090-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

# \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Building #C - Air Separation Column Can

Location: Bakersfield, CA

Latitude: 35-19-56.72N NAD 83

Longitude: 119-23-36.46W

Heights: 289 feet site elevation (SE)

200 feet above ground level (AGL) 489 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION

OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4417-OE.

Signature Control No: 165571918-167654052 (DNE)

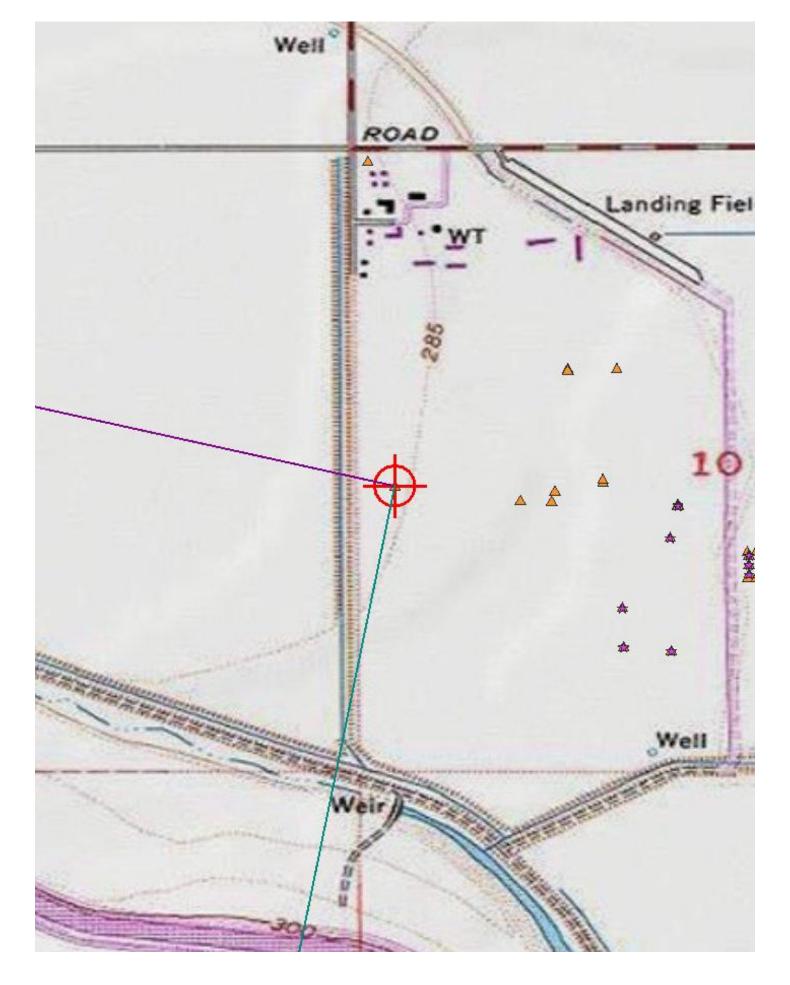
Karen McDonald Specialist

Attachment(s)
Case Description
Map(s)

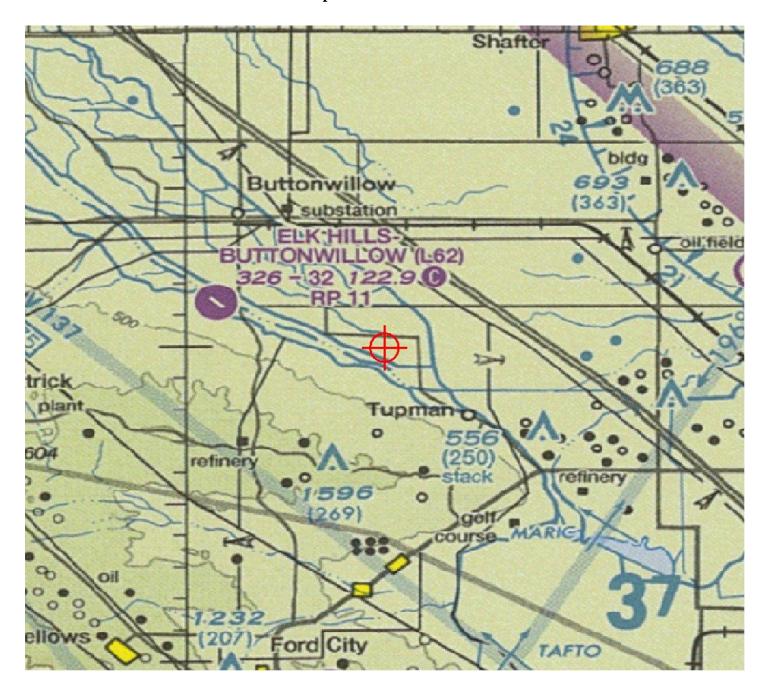
# Case Description for ASN 2012-AWP-4417-OE

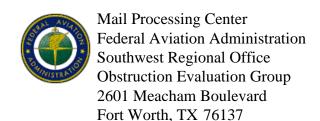
Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.

# Verified Map for ASN 2012-AWP-4417-OE



Page 5 of 6





Aeronautical Study No. 2012-AWP-4418-OE Prior Study No. 2010-AWP-1092-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Stack #5 - Heat Recovery Steam Generator Stack

Location: Bakersfield, CA

Latitude: 35-19-55.48N NAD 83

Longitude: 119-23-25.87W

Heights: 289 feet site elevation (SE)

213 feet above ground level (AGL) 502 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION

OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4418-OE.

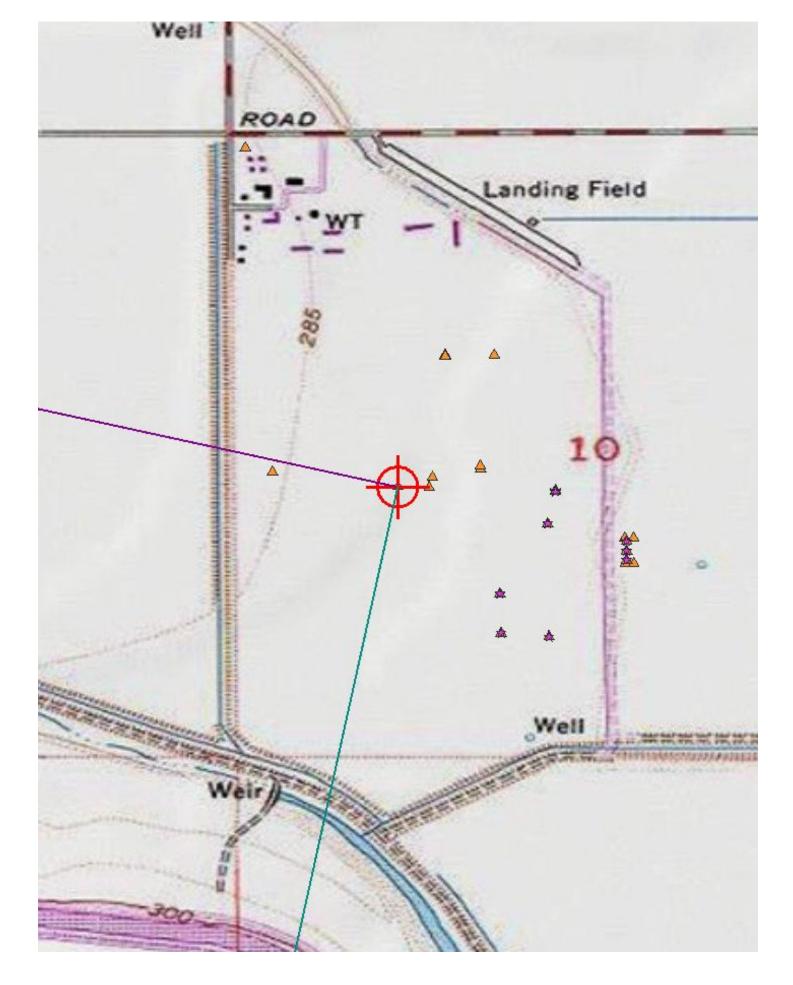
(DNE)

Signature Control No: 165571919-167654061 Karen McDonald

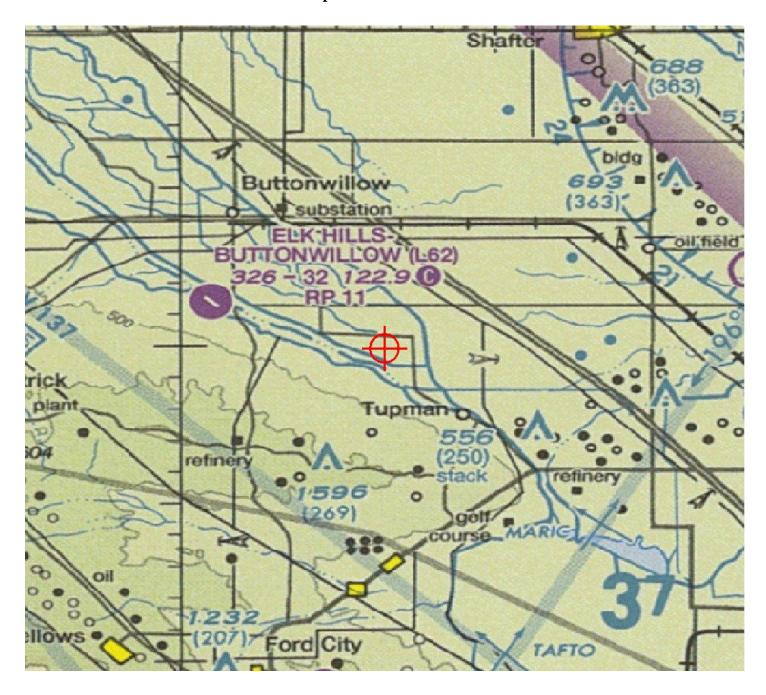
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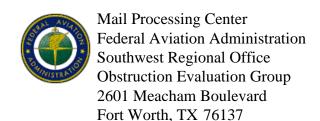
## Case Description for ASN 2012-AWP-4418-OE

# Verified Map for ASN 2012-AWP-4418-OE



Page 5 of 6





Aeronautical Study No. 2012-AWP-4419-OE Prior Study No. 2010-AWP-1091-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Stack #9 - CO2 Vent Location: Bakersfield, CA

Latitude: 35-19-57.25N NAD 83

Longitude: 119-23-18.92W

Heights: 289 feet site elevation (SE)

260 feet above ground level (AGL) 549 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

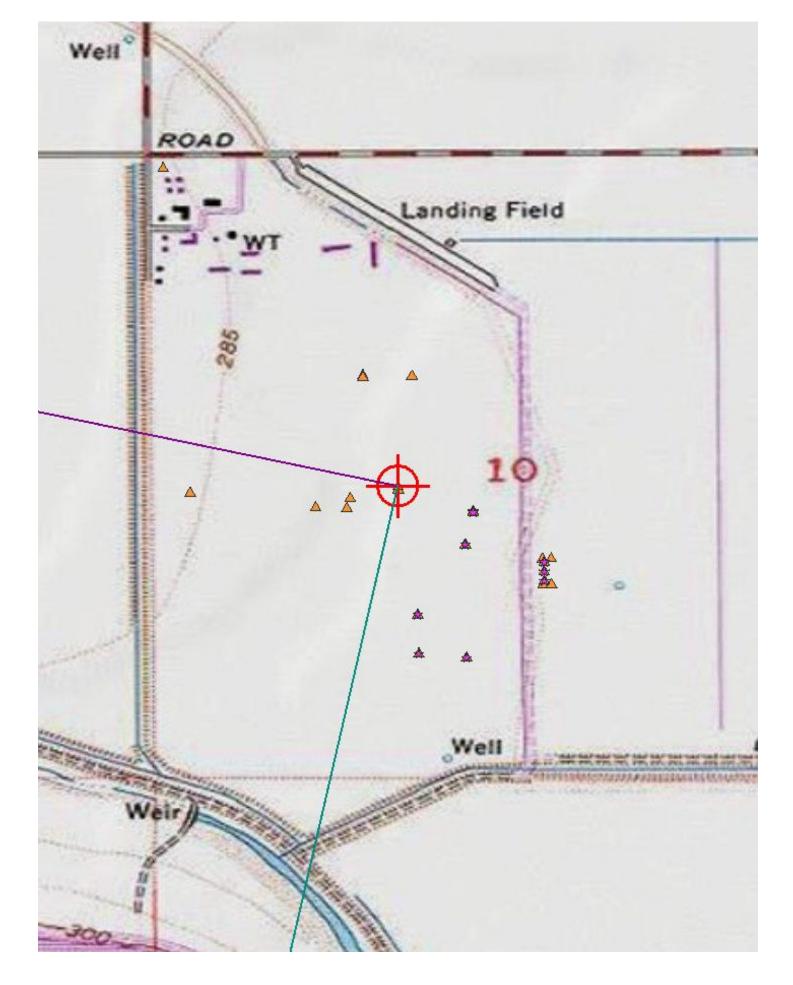
If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4419-OE.

(DNE)

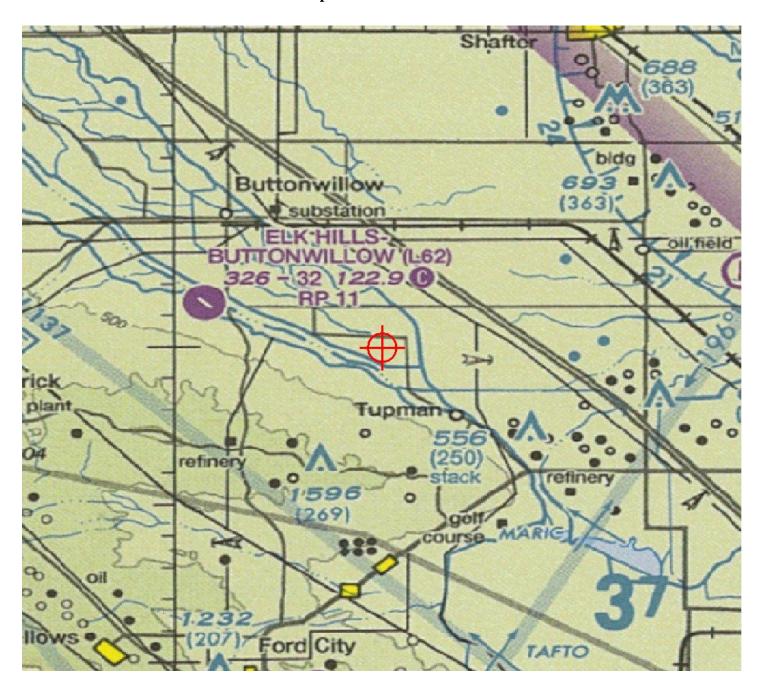
Signature Control No: 165571920-167654076
Karen McDonald
Specialist

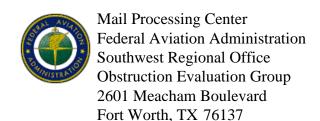
## Case Description for ASN 2012-AWP-4419-OE

# Verified Map for ASN 2012-AWP-4419-OE



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Aeronautical Study No. 2012-AWP-4420-OE Prior Study No. 2010-AWP-1097-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Stack #10 - Sulfur Recovery Unit Flare

Location: Bakersfield, CA

Latitude: 35-20-06.49N NAD 83

Longitude: 119-23-21.88W

Heights: 289 feet site elevation (SE)

250 feet above ground level (AGL) 539 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)	
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II	)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4420-OE.

(DNE)

Signature Control No: 165571921-167654074

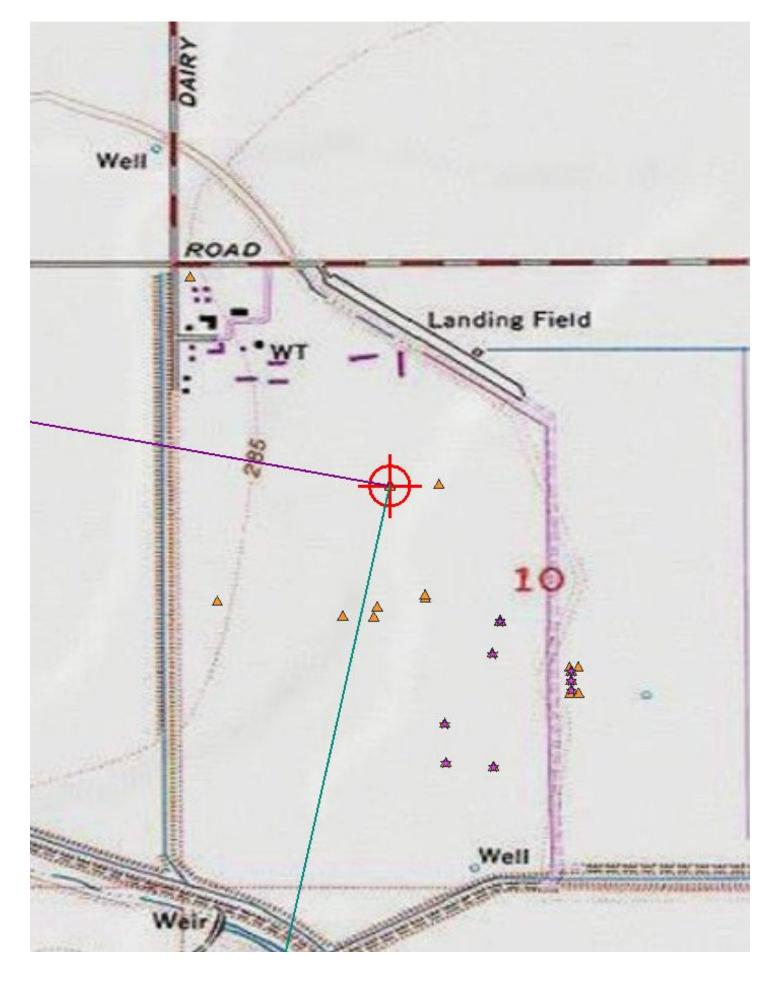
Karen McDonald

Specialist

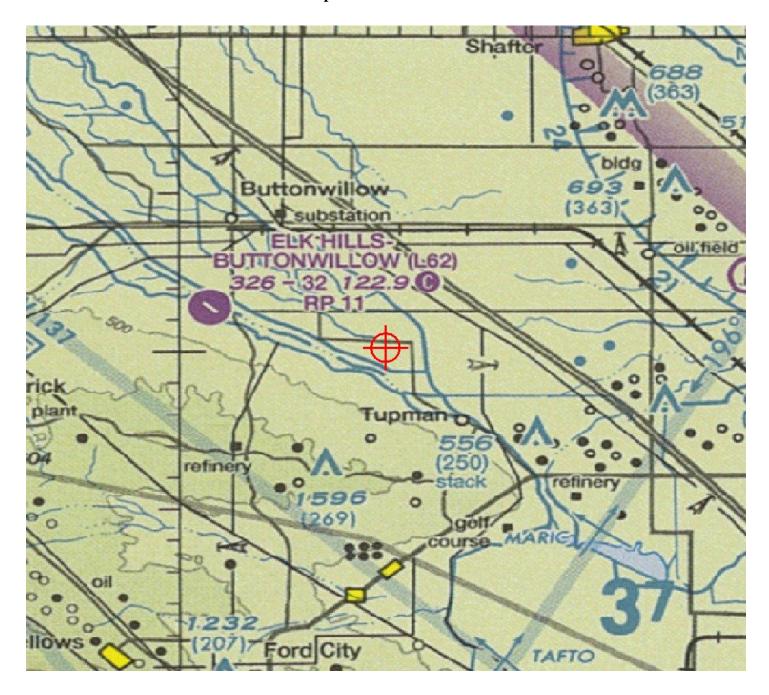
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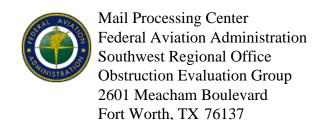
## Case Description for ASN 2012-AWP-4420-OE

# Verified Map for ASN 2012-AWP-4420-OE



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Aeronautical Study No. 2012-AWP-4421-OE Prior Study No. 2010-AWP-1088-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Stack #11 - Gasification Flare

Location: Bakersfield, CA

Latitude: 35-20-06.61N NAD 83

Longitude: 119-23-21.88W

Heights: 289 feet site elevation (SE)

250 feet above ground level (AGL) 539 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4421-OE.

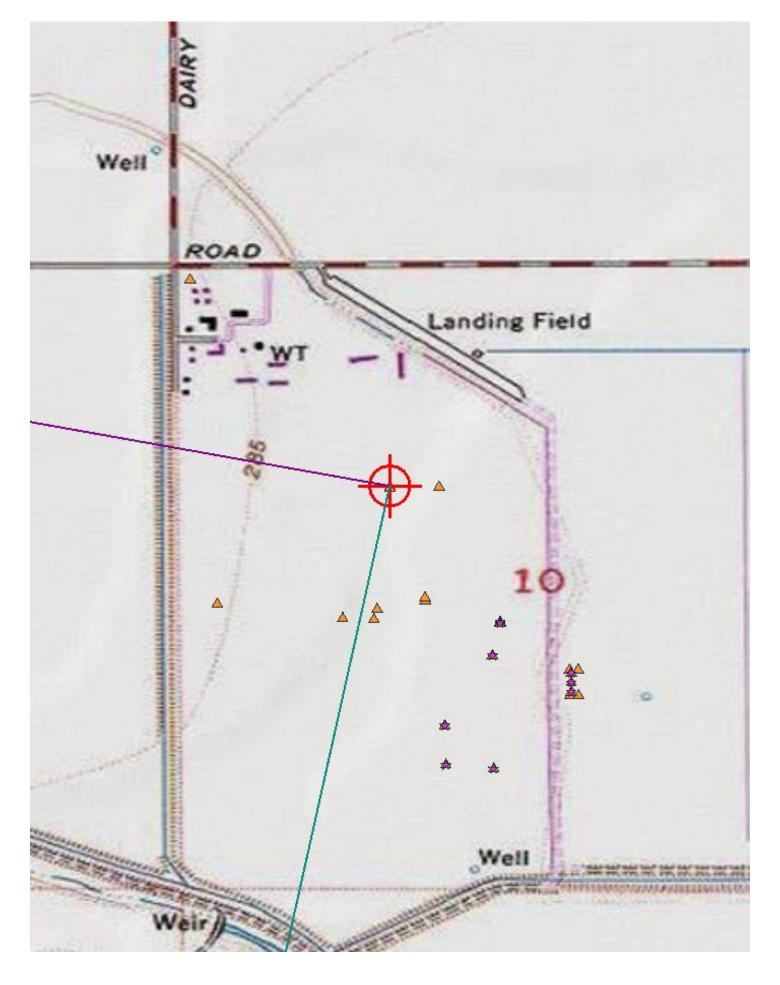
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Signature Control No: 165571922-167654079
Karen McDonald

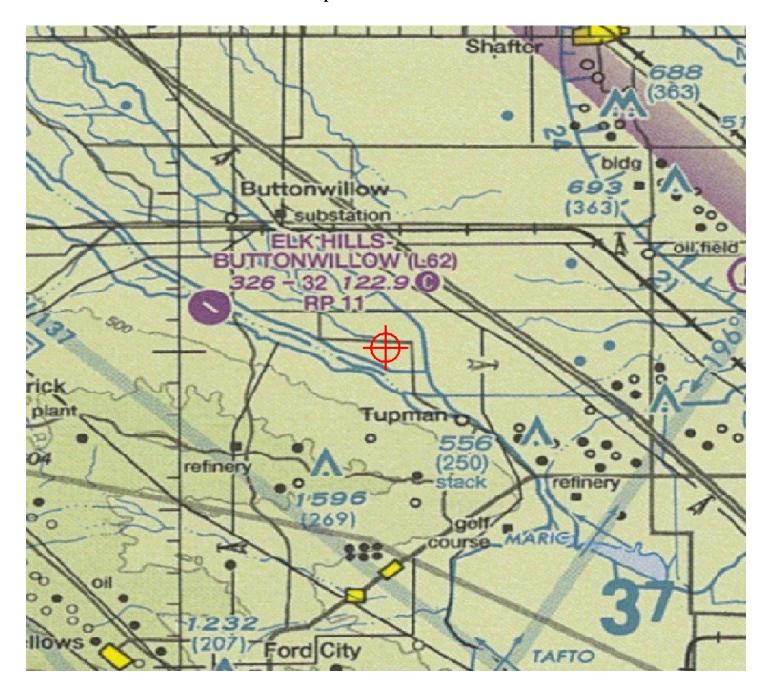
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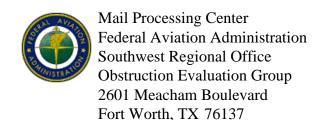
## Case Description for ASN 2012-AWP-4421-OE

# Verified Map for ASN 2012-AWP-4421-OE



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Aeronautical Study No. 2012-AWP-4422-OE Prior Study No. 2010-AWP-1087-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Stack #12 - Rectisol Flare

Location: Bakersfield, CA

Latitude: 35-20-06.59N NAD 83

Longitude: 119-23-17.74W

Heights: 289 feet site elevation (SE)

250 feet above ground level (AGL) 539 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)	
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II	)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4422-OE.

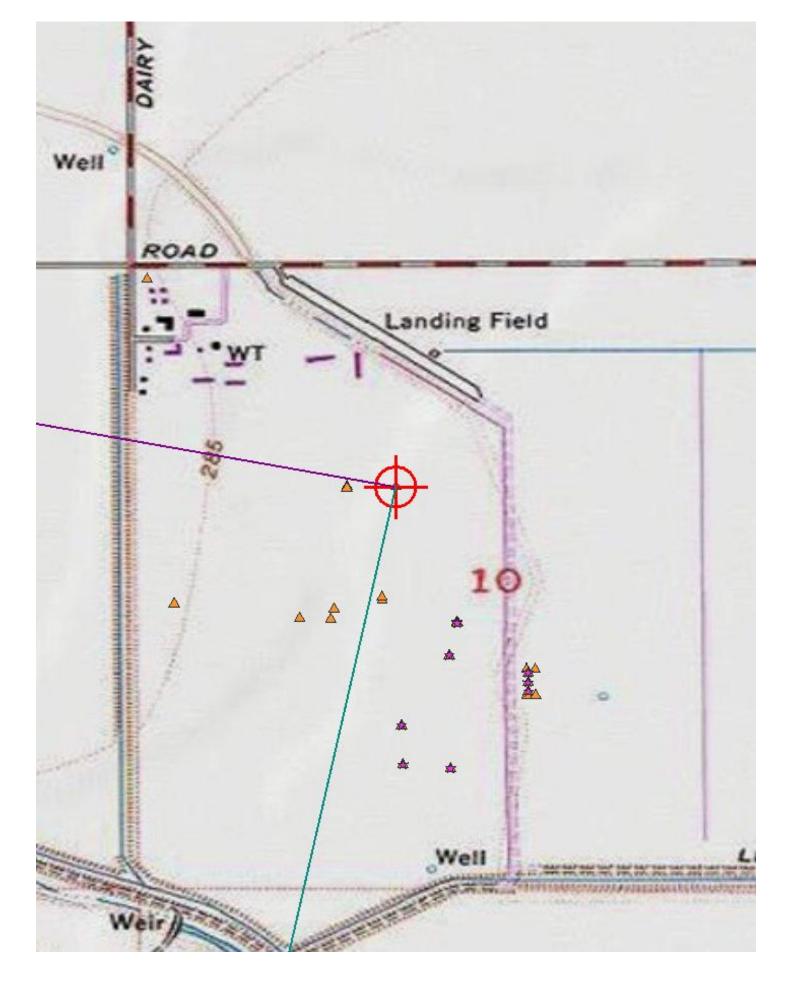
(DNE)

Signature Control No: 165571923-167654080 Karen McDonald

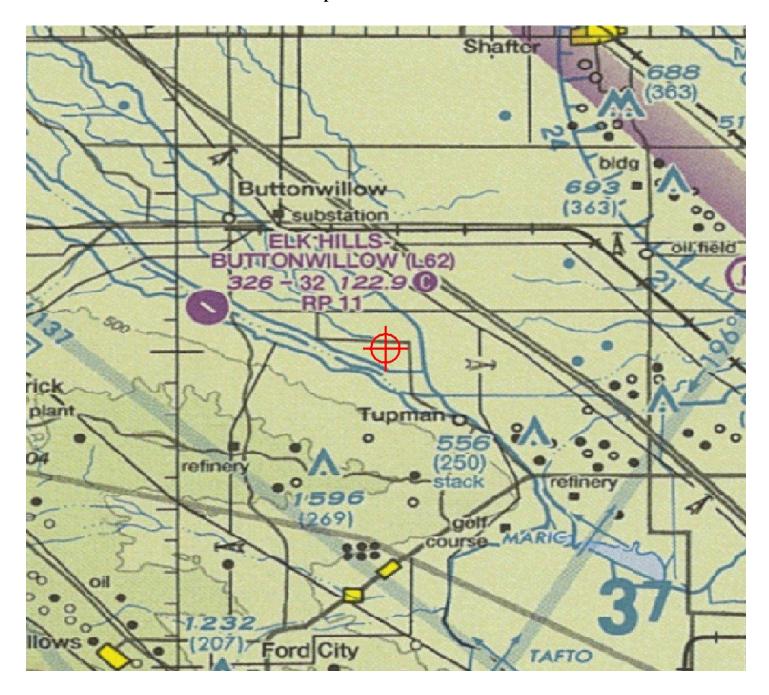
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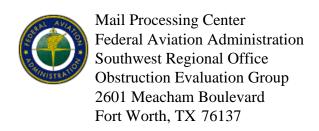
## Case Description for ASN 2012-AWP-4422-OE

# Verified Map for ASN 2012-AWP-4422-OE



Page 5 of 6





Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Building #13 - Feedstock Dryer

Location: Bakersfield, CA

Latitude: 35-19-55.41N NAD 83

Longitude: 119-23-23.24W

Heights: 289 feet site elevation (SE)

305 feet above ground level (AGL) 594 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

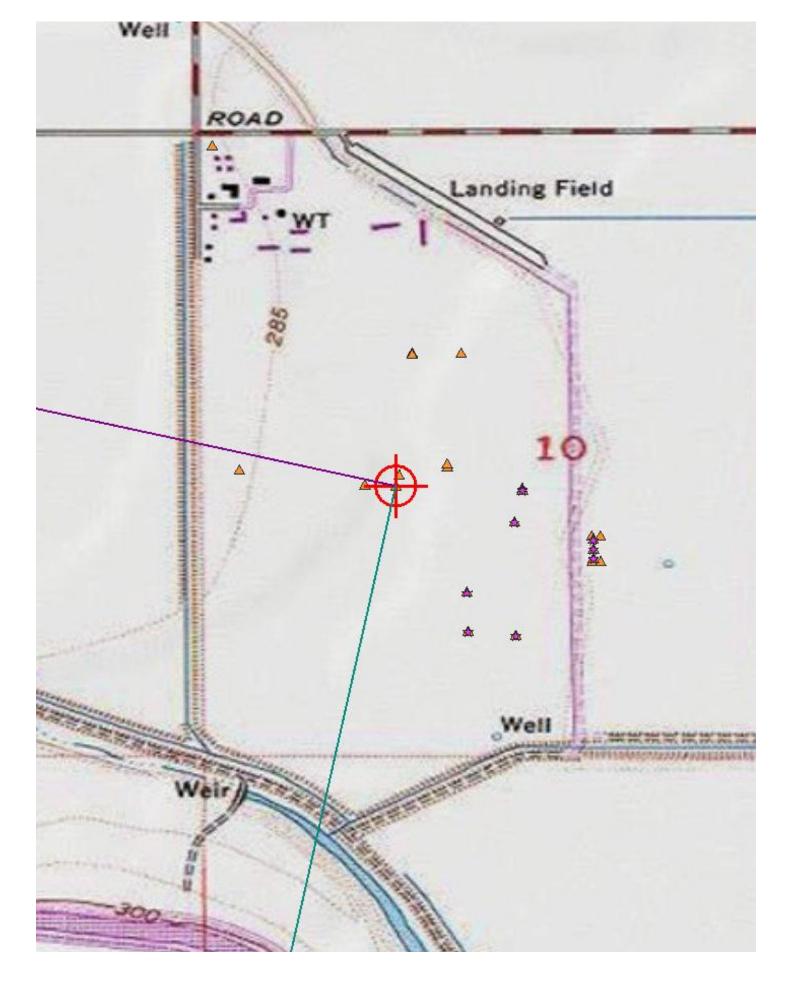
If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4423-OE.

Signature Control No: 165571924-167654077 Karen McDonald (DNE)

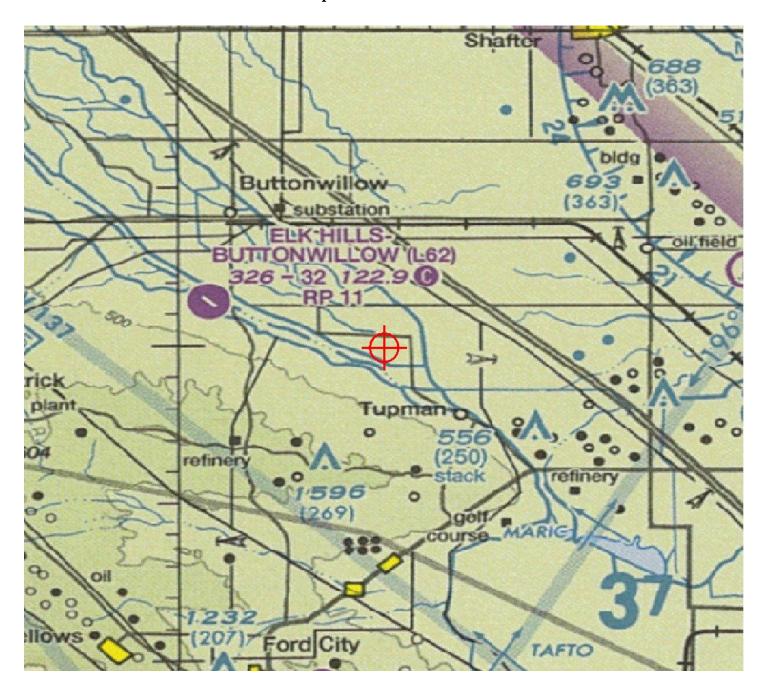
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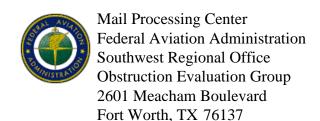
## Case Description for ASN 2012-AWP-4423-OE

# Verified Map for ASN 2012-AWP-4423-OE



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Aeronautical Study No. 2012-AWP-4424-OE Prior Study No. 2010-AWP-1096-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Building #G - Gasification Structure

Location: Bakersfield, CA

Latitude: 35-19-56.27N NAD 83

Longitude: 119-23-22.96W

Heights: 289 feet site elevation (SE)

305 feet above ground level (AGL) 594 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4424-OE.

(DNE)

Signature Control No: 165571925-167654078 Karen McDonald

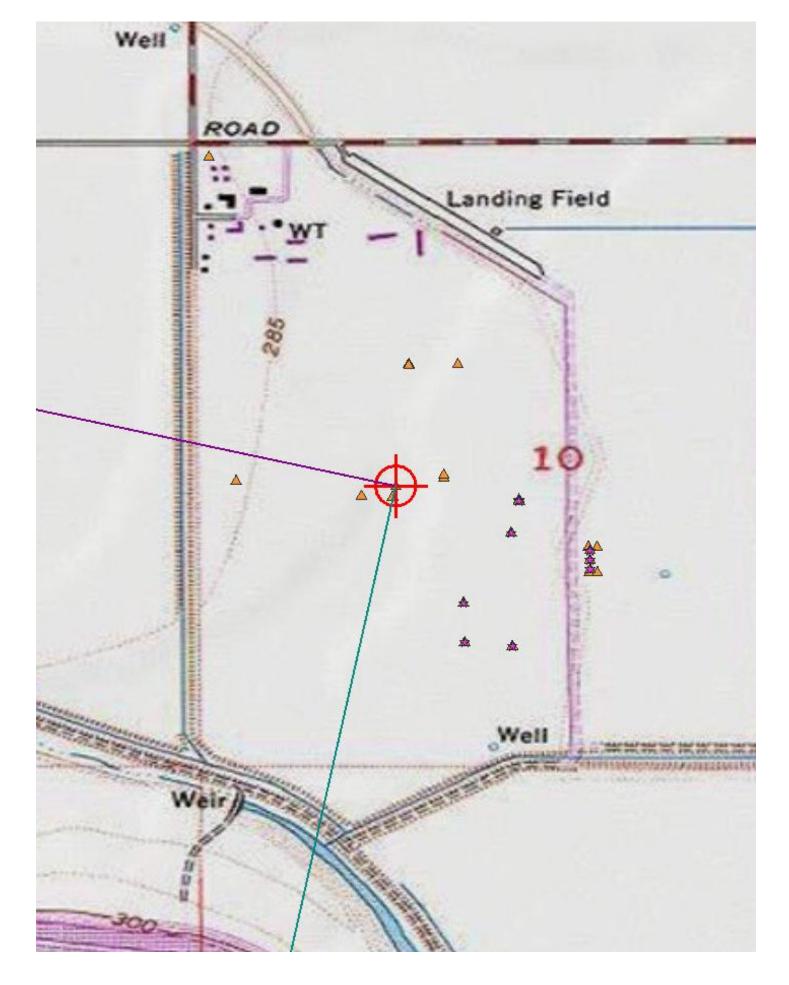
Specialist

Attachment(s)
Case Description
Map(s)

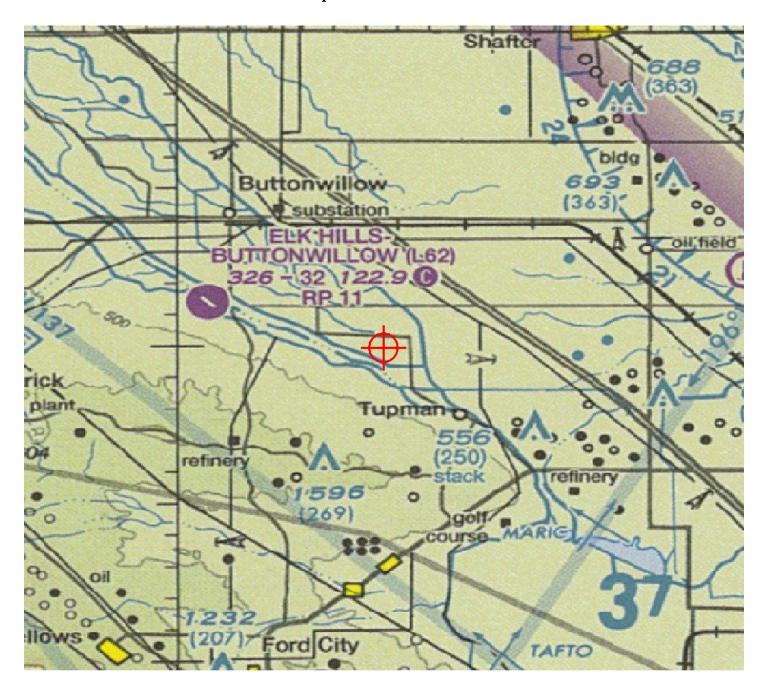
#### Case Description for ASN 2012-AWP-4424-OE

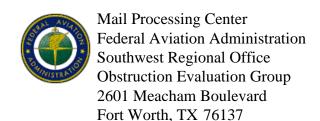
Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.

## Verified Map for ASN 2012-AWP-4424-OE



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Aeronautical Study No. 2012-AWP-4425-OE Prior Study No. 2010-AWP-1089-OE

Issued Date: 06/25/2012

Ms. Marisa Mascaro Hydrogen Energy California LLC 30 Monument Square, Suite 235 Concord, MA 01742

#### \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Building #S - Acid Gas Removal Methanol Wash Column

Location: Bakersfield, CA

Latitude: 35-19-56.99N NAD 83

Longitude: 119-23-18.90W

Heights: 289 feet site elevation (SE)

235 feet above ground level (AGL) 524 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, paint/red lights - Chapters 3(Marked),4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

	At least 10 days prior to start of construction (7460-2, Part I)
X	Within 5 days after the construction reaches its greatest height (7460-2, Part II)

This determination expires on 12/25/2013 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO

SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

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If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2012-AWP-4425-OE.

(DNE)

Signature Control No: 165571926-167654075 Karen McDonald

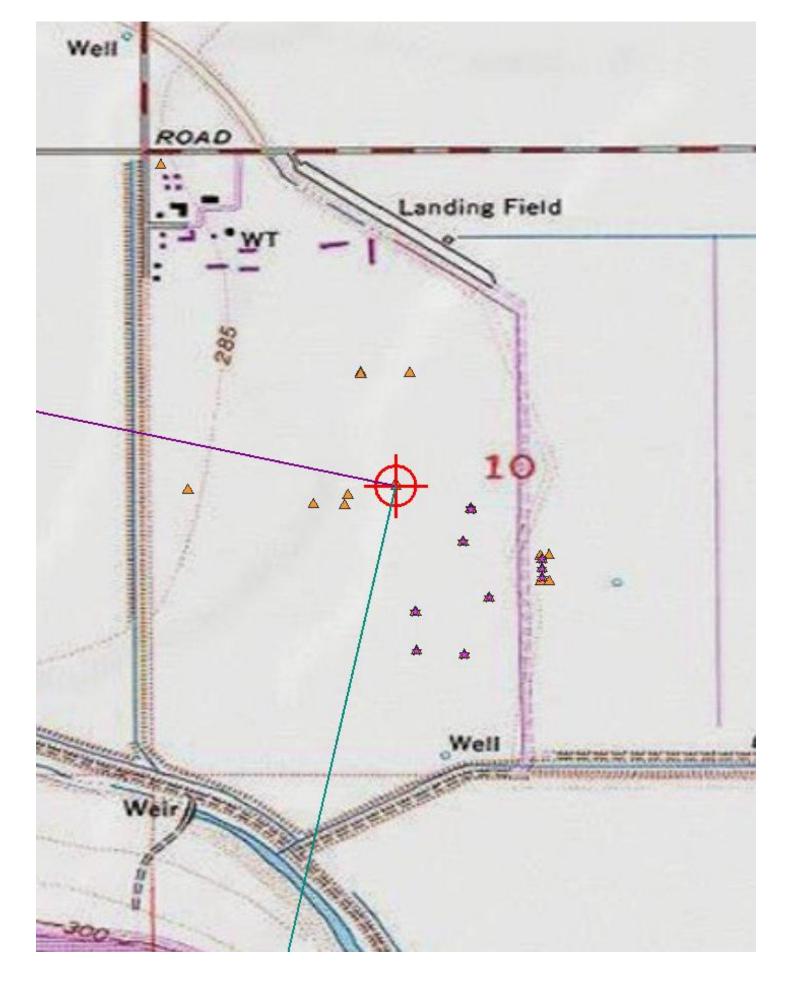
Specialist

Attachment(s)
Case Description
Map(s)

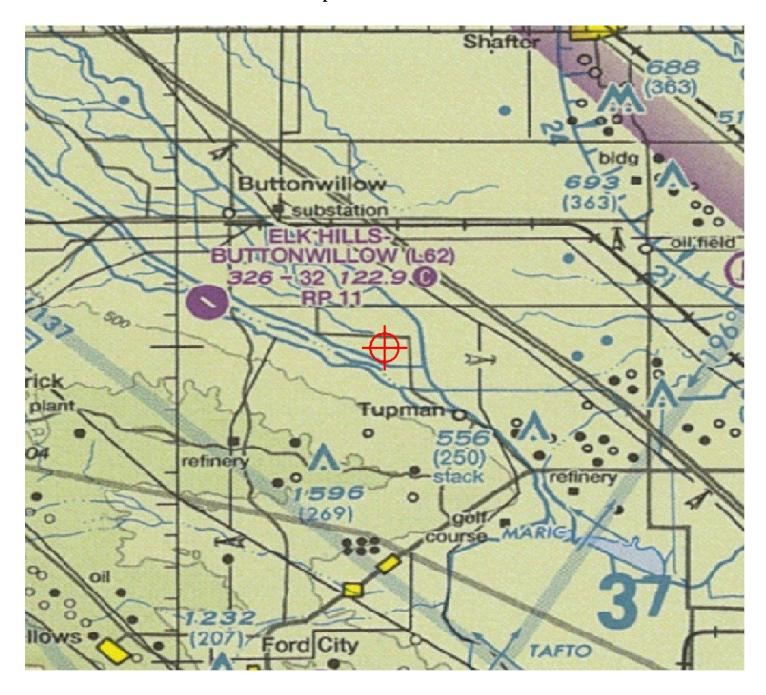
#### Case Description for ASN 2012-AWP-4425-OE

Hydrogen Energy California LLC is proposing an Integrated Gasification Combined Cycle polygeneration project called the Hydrogen Energy California (HECA) Project. Various structures associated with the HECA Project will exceed 200 feet above ground level.

## Verified Map for ASN 2012-AWP-4425-OE



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## BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

1516 NINTH STREET, SACRAMENTO, CA 95814 1-800-822-6228 – www.energy.ca.gov

# AMENDED APPLICATION FOR CERTIFICATION FOR THE HYDROGEN ENERGY CALIFORNIA PROJECT

Docket No. 08-AFC-08A (Est. 6/4/2012)

#### **APPLICANT**

SCS Energy LLC
Marisa Mascaro
30 Monument Square, Suite 235
Concord, MA 01742
mmascaro@scsenergyllc.com

#### APPLICANT'S CONSULTANT

Dale Shileikis, Vice President Energy Services Manager Major Environmental Programs URS Corporation One Montgomery Street, Suite 900 San Francisco, CA 94104-4538 dale\_shileikis@urscorp.com

#### COUNSEL FOR APPLICANT

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#### INTERESTED AGENCIES

California ISO e-recipient@caiso.com

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Environmental Relations
(Department of Oil, Gas &
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#### **INTERVENORS**

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Tom Frantz
Association of Irritated Residents
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#### INTERESTED AGENCIES (con't.)

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matt.vespa@sierraclub.org

Environmental Defense Fund (EDF) Timothy O'Connor, Esq. 1107 Ninth St., Suite 540 Sacramento, CA 95814 toconnor@edf.org

Natural Resources Defense Council George Peridas 111 Sutter Street, 20<sup>th</sup> Fl. San Francisco, CA 94104 gperidas@nrdc.org

#### <u>ENERGY COMMISSION –</u> DECISIONMAKERS

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# <u>ENERGY COMMISSION – STAFF</u>

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#### <u>ENERGY COMMISSION –</u> PUBLIC ADVISER

Jennifer Jennings
Public Adviser's Office
<u>e-mail service preferred</u>
publicadviser@energy.state.ca.us

#### **DECLARATION OF SERVICE**

I, <u>Dale Shileikis</u>, declare that on <u>June 28</u>, 2012, I served and filed a copy of the attached <u>Federal Aviation</u> <u>Administration Notice of Proposed Construction or Alteration</u> dated June, 2012. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at:

www.energy.ca.gov/sitingcases/hydrogen\_energy/index.html

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner: (Check all that Apply)

For ser	vice to all other parties:
Χ	Served electronically to all e-mail addresses on the Proof of Service list;
	Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses <b>NOT</b> marked "e-mail preferred."
AND	
For fili	ng with the Docket Unit at the Energy Commission:
Χ	by sending one electronic copy to the e-mail address below (preferred method); OR
	by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:
	CALIFORNIA ENERGY COMMISSION – DOCKET UNIT Attn: Docket No. 08-AFC-8 1516 Ninth Street, MS-4 Sacramento, CA 95814-5512 docket@energy.ca.gov
OR, if i	filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:
	Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:
	California Energy Commission Michael J. Levy, Chief Counsel 1516 Ninth Street MS-14 Sacramento, CA 95814 michael.levy@energy.ca.gov

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Da Allaka