3.7 NOISE AND VIBRATION

The incremental change to the existing Larkspur Energy Facility, as described in Section 2.0, Project Description of this Amendment, would not involve substantial changes to the findings and conclusions in Section 6.0 (Noise) of the 2001 AFC. Potential noise and vibration issues related to the Project include the addition of a CTG unit and associated equipment adjacent to the east of the existing Larkspur Energy Facility.

3.7.1 Environmental Baseline

There are three residential properties approximately 0.5-mile (2,700 feet) east of the Project site along Otay Mesa Road. These residences were previously identified in the 2001 AFC as the closest potentially noise-sensitive properties. The land uses and level of development have not changed significantly in the Project area since the 2001 AFC, thus these are still the closest residential properties to the Project site. Roadways, including Otay Mesa Road and SR-905, are sources of persistent traffic noise in the area; and traffic volumes on these roadways have increased since 2001. As such, traffic-related noise considering the high percentages of heavy trucks on these two roadways (due to the proximity of the international border crossing) may have become more significant relative to the noise emissions from the existing Larkspur Energy Facility. The Project site is also approximately 0.6-mile east of Brown Field Municipal Airport. While operations at Brown Field may have some influence on ambient noise levels during aircraft over flights, it is believed that ambient noise levels at sensitive receiver locations in this area are generally dominated by roadway traffic noise.

In order to better understand the existing ambient noise levels at and near the Project site, and to document the noise levels that result from operations of the existing Larkspur Energy Facility and sources relating to the surrounding roadways, a series of ambient and operational noise measurements were conducted.

Ambient Noise Survey

Sound level measurements were conducted from February 28, 2007 through March 1, 2007 at the closest residences and other properties surrounding the Project site to quantify the existing noise environment. Two types of sound level measurements were conducted: (1) short-term 10- to 20-minutes duration, and (2) long-term 25-hour duration. The measurement locations are shown in Figure 3.7–1, Noise Measurement Locations. The results of the short- and long-term measurements are summarized in Table 3.7–1 and Table 3.7–2, respectively. A summary of the long-term measurements is also provided in Table 3.7–3.

TABLE 3.7–1
SHORT-TERM AMBIENT SOUND LEVEL MEASUREMENTS
NO EXISTING FACILITY OPERTIONS, (DBA)

Measurement Identification	Location Description	Time	L_{eq}	L_{min}	L_{max}	L10	L50	L90
ML-1	Commercial Development East of Site	17:50–18:00	59	51	70	62	57	53
		04:45–05:05	55	41	71	60	49	44
ML-2	Vacant Property North of Otay Mesa Road	17:05–17:15	70	49	90	69	61	54
		05:25–05:40	69	50	78	73	65	53
ML-3	West Property Line	17:25–17:35	60	53	72	62	59	56
		05:50–06:05	60	53	64	62	60	57
ML-4	South Property Line	17:05–17:15	58	54	63	60	58	55
		06:09–06:24	58	55	60	59	57	56
ML-5	East Fence Line	17:25–17:40	56	49	65	59	54	51
		03:10–03:15	56	49	70	57	54	51

Notes:
L_{eq} = equivalent-continuous sound level; average sound level
L_{min} = minimum measured noise level
L_{max} = maximum measured noise level
L_{10} = A-weighted sound level exceeded 10-percent of the time
L_{50} = A-weighted sound level exceeded 50-percent of the time
L_{90} = A-weighted sound level exceeded 90-percent of the time
ML = short-term measurement location
dBA = A-weighted sound level
Measurements taken from February 28, 2007 (PM measurements) and March 1, 2007 (AM measurements)
ML-6 was not used for short-term ambient sound level measurements

TABLE 3.7–2
25-HOUR LONG TERM AMBIENT NOISE MEASUREMENT DETAIL (LT1)

Start Time	L_{eq}	L_{max}	L_{min}	L_{10}	L_{50}	L_{90}
15:00	67.5	80.5	56.1	69.6	65.4	61.0
16:00	66.4	75.5	53.6	69.7	64.9	58.9
17:00	64.6	72.9	51.5	68.1	62.7	57.0
18:00	60.7	71.0	45.2	65.1	55.9	47.6
19:00	60.5	72.6	44.7	64.9	53.3	46.4
20:00	57.3	69.5	45.3	61.2	51.8	47.1
21:00	59.2	70.1	41.7	64.2	53.7	44.5
22:00	63.7	75.4	45.8	66.9	59.6	49.5
23:00	58.8	70.1	49.1	63.1	53.4	50.3
0:00	52.5	66.4	44.5	54.9	47.4	45.3
1:00	57.1	69.9	48.4	61.0	51.2	49.4
2:00	54.7	69.0	46.4	54.7	49.4	48.1
3:00	57.0	69.5	46.6	60.8	50.8	47.6
4:00	56.5	68.8	46.7	60.6	49.9	47.6
5:00	63.0	72.2	47.1	67.2	60.0	49.8
6:00	63.7	72.5	49.7	67.6	61.6	52.5
7:00	63.6	73.2	46.4	67.4	61.6	49.5
8:00	62.2	73.8	43.6	66.6	57.0	45.5
9:00	60.7	72.4	42.8	65.0	55.7	46.6
10:00	61.0	72.9	42.6	65.2	56.3	46.6
11:00	62.6	76.0	44.1	66.4	56.9	47.8
12:00	63.6	76.1	48.0	67.6	59.6	52.6
13:00	63.0	72.8	50.0	66.6	60.7	54.4
14:00*	63.8	71.2	52.5	67.0	62.7	57.2
15:00*	65.2	73.5	52.3	68.8	63.4	56.5

Notes:

L_{eq} = equivalent-continuous sound level; average sound level
L_{min} = minimum measured noise level
L_{max} = maximum measured noise level
L_{10} = A-weighted sound level exceeded 10-percent of the time
L_{50} = A-weighted sound level exceeded 50-percent of the time
L_{90} = A-weighted sound level exceeded 90-percent of the time
LT1 = long-term measurement 1
*Partial Hour due to Equipment Anomaly

TABLE 3.7–3
LONG TERM NOISE MEASUREMENT DATA SUMMARY

Site ID	Measurement Location	Measurement Period			Measurement Results (dBA)					
		Start Date	Start Time	Duration (hh:mm)	25-hr L_{eq}	24-hr L_{dn}	24-hr CNEL	25-hr Avg L_{50}	25-hr Avg L_{90}	Night* Avg L_{eq}
LT1	6940 Otay Mesa Road.	2/28/06	15:00	25:00	62	67	67	57	50	60

Notes:
L_{eq} = equivalent-continuous sound level; average sound level
L_{dn} = day-night average sound level
CNEL = community noise equivalent level
LT1 = long-term measurement 1
L_{50} = A-weighted sound level exceeded 50-percent of the time
L_{90} = A-weighted sound level exceeded 90-percent of the time
*Night Period (10 PM to 7 AM)

The short-term data were gathered using two Larson Davis Model 820 ANSI Type 1 Integrating Sound Level Meters (Serial Numbers 1323 and 1324) with windscreens. The sound level meters were set on slow-time response using the A-weighted sound level (dBA) scale for all measurements. The meter was calibrated before and after each measurement period with a Larson Davis Model CAL150B acoustic calibrator (Serial Number 2233). Each sound level meter was mounted on a tripod 5 feet above the ground to approximate the average height of the human ear. All sound level measurements conducted by URS were in accordance with International Standard Organization ISO (1996 a, b, c). For the ambient short term noise levels presented in Table 3.7-1 the existing plant was not operating.

The long-term data were gathered using a Larson Davis Model 720 ANSI Type 2 Integrating Sound Level Meter (Serial Number 0436). The meter was placed in a watertight container and the microphone was mounted securely on a tripod so that it was approximately 5 feet above ground level. The long-term measurement consisted of consecutive 5-minute averages that were averaged together to obtain one-hour levels. For the ambient long-term noise levels presented in Table 3.7-2 and summarized in Table 3.7-3, the existing plant was operating over two short periods, from approximately 15:00 and 17:00 and from 6:00 and 7:00.

The weather conditions during the survey period were seasonally moderate with partly cloudy skies and no precipitation. The air temperature varied from 42°F to 60°F with 35 to 95 percent relative humidity during daytime hours; whereas during nighttime hours air temperatures ranged from 40°F to 46°F, and 84 to 98 percent relative humidity. Winds were moderate to gusty, generally measuring 3 to 10 miles per hour with some gusty periods from 10 to 12 miles per hour.

Operational Noise Survey

Comprehensive noise emission data were not available for the existing Larkspur Energy Facility. In order to document the operational noise levels, and to infer to some extent the source noise emissions, a variety of close proximately noise measurements were conducted under controlled operational conditions. These

conditions included: Unit 1 running at full power; Unit 2 running at full power; and both Units 1 and 2 running at full power, with startup and cool-down operation associated with operation of the existing facility. The results of these measurements plus other observations and operational information were used to calibrate the noise model for the existing Larkspur Energy Facility configuration. The results of these operational measurements are summarized in Table 3.7-4.

TABLE 3.7-4
SHORT-TERM OPERATIONAL SOUND LEVEL MEASUREMENTS
(DBA)

Monitoring Location (ML)	Location Description	Ambient	Unit 1	Unit 2	Both Units
ML-2	Vacant Property North of Otay Mesa Road	69	61	60	66
ML-3	Fence Line West	60	74	75	73
ML-4	Fence Line South	58	75	71	76
ML-5	Fence Line East	56	72	76	78

Notes:
ML = short-term measurement location
dBA = A-weighted sound level
Measurements taken on February 28, 2007 and March 1, 2007
ML-1 and ML-6 were not used for short-term operational sound level measurements

3.7.2 Environmental Consequences

3.7.2.1 Operation

NOISE PREDICTION METHODS

The Cadna/A Noise Prediction Model (Version 3.6) was used to estimate the Project-generated sound level at receptors of interest. Cadna/A is a Windows® based software program that calculates noise levels due to industrial noise sources and was configured to base these calculations on ISO 9613–2 standards. The model uses industry-accepted propagation algorithms and user-defined sound power levels (SWL re: 1 picoWatt) as typically provided by the equipment manufacturers and/or URS archived data. The calculation algorithms account for sound wave divergence with distance, attenuation due to air absorption, ground effects, reflections from obstacles, and noise reductions due to barriers. The Cadna/A input parameters are provided in Appendix E, *Noise Modeling.*

The Project site configuration was imported into Cadna/A from the Project CAD files and noise sources modeled for existing Larkspur Energy Facility and future Project equipment. The Project is assumed to operate 24-hours per day, so the average noise output (including variations due to startups and shutdowns) would be essentially constant regardless of time of day. This model uses the octave band sound power levels (SWL) of the major subcomponents to calculate the corresponding sound pressure levels (SPL) for the equipment.

The existing Larkspur Energy Facility, the Project site, and the surrounding areas were assumed to be flat so topographical features assist to reduce the sound propagating from the existing and proposed facilities to a receiver property. However, major buildings, tanks, and large equipment were included as barriers. Calculations were performed using linear octave band sound power levels as inputs to characterize existing and future noise sources of concern within the existing and proposed site boundary. The calculated results at receivers of interest are the octave band SPL and the total, A-weighted SPL.

The SWL data were obtained from two different source types: existing operating equipment that would continue to operate in the future (primarily CTG Units 1 and 2 plus ancillary equipment) and the new equipment to be installed as part of the Project (Unit 3). Additional data from equipment manufacturers that are critical to the analysis were provided to URS by Larkspur 3, LLC and supplemented by URS project experience with similar GE LM6000 installations, such as CTG units analyzed for the IID Niland AFC.

For the existing Larkspur Energy Facility equipment, the SPL were characterized from noise measurements with equipment operating under controlled conditions. On February 28, 2007 a series of far field, octave band noise measurements were conducted for a variety of operating conditions (including Unit 1 operating alone, Units 1 and 2 operating together, and Unit 2 operating alone). The SPL measurements were conducted at an elevation of 5 feet above the ground at horizontal distances ranging from 25 feet to 400 feet from Unit 2 and at various locations around the perimeter of the existing Larkspur Energy Facility. The SPL measurements conducted for the purpose of characterizing the noise emissions from the existing Larkspur Energy Facility equipment were taken at various monitoring locations with an emphasis on the eastern side of the existing facility using a Larson-Davis 824 ANSI Type 1 Spectral Analyzer (Serial Number A0427).

The SWL, type of source, and acoustic height of existing and proposed equipment components are provided in Table 3.7–5, Noise Model Parameters Existing Equipment and Table 3.7–6, Noise Model Parameters Project Equipment, respectively.

Table 3.7-7 shows the predicted sound pressure levels at property lines and closest residential and commercial areas as a result of the proposed development. The calculated hourly Leq and CNEL levels assumed that all three units would operate continuously 24 hours per day.

TABLE 3.7-5
NOISE MODEL PARAMETERS, EXISTING EQUIPMENT

Project Component	Type of Source	Sound Power Level (SWL) at Octave Band Center Frequency (Hz)									A-Weighted
		31.5	63	125	250	500	1000	2000	4000	8000	
Cooling Tower Source	Point	96	102	99	99	96	95	91	85	75	99.3
Exhaust Stack (Unit 1)	Point	123	120	107	96	85	80	77	77	79	96.9
Exhaust Stack (Unit 2)	Point	123	120	107	96	85	80	77	77	79	96.9
air_compressor_skid_(2)*	Area	101	109	105	110	105	102	103	96	91	108.9
ammonia_injec_(2)*	Area	81	88	86	81	84	82	80	75	70	86.9
aux_xfrmr (Unit 1) (2)*	Area	92	96	88	84	80	78	74	74	69	83.8
aux_xfrmr_(Unit 2)	Area	92	96	88	84	80	78	74	74	69	83.8
chiller	Area	110	111	112	110	104	96	92	90	89	105.8
compressor_xfrmr (2)*	Area	92	96	88	84	80	78	74	74	69	83.8
d.w.injec_booster_pump (4)*	Area	81	88	86	81	84	82	80	75	70	86.9
demin_water_pumps	Area	81	88	86	81	84	82	80	75	70	86.9
fuel_gas compressor_skid (2)*	Area	101	109	105	110	105	102	103	96	91	108.9
gtg_fan-E (2)*	Area	114	113	102	108	101	98	89	85	77	103.7
gtg_fan-W (2)*	Area	114	113	102	108	101	98	89	85	77	103.7
liq_fuel booster pump (2)*	Area	81	88	86	81	84	82	80	75	70	86.9
step-up_xfrmr (2)*	Area	92	96	88	84	80	78	74	74	69	83.8
aux_skid (2)*	Area	81	88	86	81	84	82	80	75	70	86.9
Gas Turbine Generator (2)*	Area	113	111	110	103	96	94	90	90	86	101.1
SCR Casing (2)*	Area	118	111	104	101	91	77	73	71	60	95.3
compressor_xfrmr	Area	92	96	88	84	80	78	74	74	69	83.8
fuel_gas compressor_skid	Area	101	109	105	110	105	102	103	96	91	108.9

Notes:
SWL = sound power level
HZ = hertz
Source: GE Aero Energy Products for LM6000 Main Unit Noise, Ancillaries, and SCR/CO Catalyst System Noise (2004)
* multiple units present, as indicated, modeled separately, source levels are for each unit.

TABLE 3.7-6
NOISE MODEL PARAMETERS, PROJECT EQUIPMENT

Project Component	Type of Source	Sound Power Level (SWL) at Octave Band Center Frequency (Hz)									A-Weighted
		31.5	63	125	250	500	1000	2000	4000	8000	
Exhaust Stack (Unit 3)	Point	123	120	107	96	85	80	77	77	79	96.9
ammonia_injec (Unit 3)	Area	81	88	86	81	84	82	80	75	70	86.9
aux_xfrmr (Unit 3)	Area	92	96	88	84	80	78	74	74	69	83.8
gtg_(Unit 3)_fan-E	Area	109	105	90	92	85	74	70	76	71	87.6
gtg_(Unit 3)_fan-W	Area	109	105	90	92	85	74	70	76	71	87.6
aux_skid_(Unit 3)	Area	81	88	86	81	84	82	80	75	70	86.9
Gas Turbine Generator (Unit 3)	Area	113	111	110	103	96	94	90	90	86	101.1
SCR Casing 300	Area	115	108	101	98	88	74	70	68	57	92.3
xfrmr/swgr (Unit 3)	Area	92	96	88	84	80	78	74	74	69	83.8
Fuel gas compressor skid (Unit 3)	Area	101	109	105	110	105	102	103	96	91	108.9
d.w.injec booster pump (Unit 3)-a	Area	81	88	86	81	84	82	80	75	70	86.9
d.w.injec booster pump (Unit 3)-b	Area	81	88	86	81	84	82	80	75	70	86.9
ammonia_atomizing_skid	Area	81	88	86	81	84	82	80	75	70	86.9
filter house shell east	Area	105	105	102	97	83	86	85	83	78	93.7
filter house shell west	Area	105	105	102	97	83	86	85	83	78	93.7

Notes:
SWL = sound power level
Hz = hertz
Source: GE Aero Energy Products for LM6000 Main Unit Noise, Ancillaries, and SCR/CO Catalyst System Noise (2004).

TABLE 3.7-7
CALCULATED SPL DUE TO PROJECT OPERATION

Receptor	Calculated Level, dBA	
	Hourly L_{eq}	CNEL
ML-1 (Commercial to East: closest commercial)	54	61
ML-2 (North Property Line)	66	73
ML-3(West Property Line)	62	69
ML-4 (South Property Line)	74	80
ML-6 (East Property Line)	73	80
LT-1 (Residence to East: closest residence)	45	52

Notes:
ML = short-term measurement location
LT = long term measurement location
CNEL = community noise equivalent level
dBA = A-weighted sound level
CNEL is generally Hourly Leq + 7 dBA
ML-5 was not used for calculated Project operation due to the proposed relocation of Project fenceline

Based on the calculation results given above, the Project, as an incremental addition to the existing Larkspur Energy Facility, will not result in noise impacts. The predicted continuous-operation noise levels are not predicted to exceed the 75 dBA ordinance standard (as discussed in Section 3.7.4) at any potion of the property line.

The predicted noise level for continuous facility operation at the closest residential property (45 dBA) is well below the existing measured ambient levels for all hourly equivalent sound level L_{eq} levels, 24-hour L_{eq}, and 24-hour L90 (A-weighted sound level exceeded 90-percent of the time). In addition, the predicted 24-hour CNEL level (52 dBA) (assuming continuous 24-hour operation) is well below the measured CNEL at that location of 67 dBA. The L_{dn} level at the closest resident resulting from plant operation would be approximately 51 dBA, well below the USEPA recommended level of 55 dBA, L_{dn}.

3.7.2.2 Construction

Construction activities at the Project site would result in a short-term temporary increase in the ambient noise level resulting from the operation of construction equipment. The increase in noise level would be primarily experienced close to the noise source during daytime periods. The magnitude of the noise effects would depend on the type of construction activity, noise level generated by various construction equipment, duration of the construction phase, and the distance between the noise source and receiver. Sound levels of typical construction equipment range from approximately 65 dBA to 95 dBA at 50 feet from the source, with an average level of 89 dBA at 50 feet during the noisiest activities (EPA1971). This analysis will use 89 dBA at 50 feet as the reference noise level for temporary Project construction noise. It is assumed that construction activities will be confined to daytime hours (between 7 AM and 7 PM) and that special high noise level construction activities, such as pile driving and blasting, will not be required.

Acoustical calculations were performed to estimate noise from construction activities at the closest residences. Noise from the activity was assumed to have point source acoustical characteristics. Strictly speaking, a point source sound decays at a rate of 6 dB per doubling of distance from the source. This is a logarithmic relationship describing the acoustical spreading of a pure, undisturbed spherical wave in air. The rule applies to the propagation of sound waves with no ground interaction. The calculations are based on the formula below (Harris 1991):

$$SPL_2 = SPL_1 - 20\log\left(\frac{d_2}{d_1}\right), \text{ where:}$$

SPL_1 = known sound level,
SPL_2 = desired sound level,
d_1 = known distance, and
d_2 = desired distance.

Approximately 1 decibel per 1,000 feet is also deducted for air absorption and anomalous excess attenuation. The closest off-site residential uses to the Project consist of single-family residences approximately 2,700 feet east. Based on the distance from Project components to be constructed, sound levels at the residences will average 52 dBA. Because of the intermittent nature of construction work, the average sound level for an 8-hour work day is expected to be substantially less than the calculation predicts. The calculated level is approximately 10 dB below the typical daytime L_{eq} level (61 to 68 dBA, $L_{eq,}$ at LT1). The predicted construction noise level is also well below the County's 75 dBA daytime limit (see Section 3.7.8).

3.7.2.3 Onsite Occupational Noise

Based upon the noise level data, the noise levels inside and very near the Project would be similar in magnitude to comparably sized power plants and other large industrial projects. These high noise levels may require the use of hearing protection as specified by federal OSHA and Cal/OSHA guidelines for worker noise exposure. Compliance with Cal/OSHA regulations will ensure that personnel are adequately protected from potential noise hazards. The noise exposure level to protect hearing of workers is regulated at 90 dBA over an 8-hour work shift. Areas above 85 dBA will be posted as high noise level areas and hearing protection will be required. The Project owners will implement a hearing conservation program for applicable employees as outlined in Cal/OSHA regulations.

3.7.3 Mitigation Measures

The Project includes several noise limiting/noise reducing features which result in lower noise emission levels relative to corresponding "standard equipment." These features include:

- Air Inlet Filter Face -- Acoustic Louvers
- LPC Bleed Air Vent Silenced Exhaust
- Turbine Enclosure Vent Exhaust Silencer
- Generator Cooling Air Exhaust Shell

- Combustion Exhaust Expansion Joint
- Combustion Exhaust System Stack Shell
- Combustion Exhaust Exit, Additional Silencer
- Auxiliary Skid – Enclosure
- Water Injection Skid – Enclosure
- New Noise Barrier for Existing Gas Compressor Skids

The reduced acoustical contribution of these components is reflected in the spectral source levels documented in Table 3.7-6, Noise Model Parameters, New Equipment. In addition to the items listed in Table 3.7-6, the Project would lengthen the 10-foot high masonry wall that currently runs along the existing Larkspur Energy Facility northern property line (along Otay Mesa Road) to extend along the northern boundary line of the Project site. The acoustical influence of the wall extension has been taken into account in the noise predictions. Also, in order to reduce existing and future noise levels at portions the south property line, two new component-specific sound barriers will be installed just south of each of the existing gas compressor skids, each approximately 10 feet high and 45 feet long (see Figure 2-2, Site Plan).

Aside from these noise reducing components, no other noise mitigation measures are required or recommended.

3.7.4 Consistency with LORS

The Project site and the existing Larkspur Energy Facility are located within the City of San Diego. The Project site and the properties immediately adjacent to the west, east, and south are zoned IH-2 (Industrial Heavy), with an applicable property line noise level limit of 75 dBA, L_{eq} for daytime and nighttime periods. The area immediately north of Otay Mesa Road is unincorporated San Diego County and zoned Industrial M56, for which property line limits are also 75 dBA, L_{eq} for daytime and nighttime periods. A summary of applicable LORS is presented in Table 3.7–8.

According to predicted noise levels discussed in Section 3.7.2.1 and presented in Table 3.7-7, the Project would be consistent with all applicable LORS.

TABLE 3.7-8
SUMMARY OF APPLICABLE NOISE LORS

LORS	Requirement	Conformance to Requirement	Administering Agency
Federal			
OSHA regulations	Levels over 85 dBA at 8-hr work station require hearing conservation	No impacts identified	OSHA
USEPA Guidelines	This guidelines contains goals for noise levels affecting residential land use of L_{dn} $\leq$55 dBA for exterior levels	On site hearing conservation program as required	USEPA
State			
CEC regulations	Increase over existing background noise level of 5 dBA or greater at noise-sensitive areas is significant (CEC). Levels over 85 dBA at 8-hr work station require hearing conservation (Cal-OSHA).	No impacts identified	CEC
Local			
City of San Diego Noise Policy	75 dBA, 1-hour L_{eq} at property Line (Heavy 2 Industrial), 65 dBA, CNEL at Residential Land Uses. Construction noise limit: 75 dBA at residential areas during daytime periods (7 AM to 7 PM).	No impacts identified	City of San Diego Planning Department
County of San Diego Noise Policy	75 dBA, 1-hour L_{eq} at property Line (M56 Industrial), 60 dBA, CNEL at Residential Land Uses. Construction noise limit: 75 dBA at residential areas during daytime periods (7 AM to 7 PM).	No impacts identified	County of San Diego Planning Department

3.7.5 References Cited

California Energy Commission. 2001. Larkspur Energy Facility Conditions of Certification. Located at http://www.energy.ca.gov/sitingcases/peakers/larkspur/documents/01_Larkspur_SA.PDF.

California Energy Commission. 1997. Rules of Practice and Procedure, Power Plant Site Certification Regulations.

City of San Diego. 1989. Noise Ordinance, Section 59.5.0401, Sound Level Limits.

County of San Diego. 2006. Noise Abatement and Control, Section 36.404, Sound Level Limits.

Harris, Cyril M. (ed.) 1991. Handbook of Acoustical Measurements and Noise Control. Third edition. McGraw-Hill, Inc. New York, NY.

International Standard Organization. 1996. Acoustics – Description and Measurement of Environmental Noise. Global Engineering Documents.

Noise Analysis, Wildflower Larkspur Project (for AFC submission), URS, March 2001.

Project correspondence, GE Energy (noise emission data for proposed power equipment).

U.S. Environmental Protection Agency (EPA). 1971. Noise from Construction Equipment and Operations, Building Equipment and Home Appliances. (Prepared under contract by Bolt, et al., Bolt, Beranek & Newman, Boston, Massachusetts.) Washington, D.C.

Wildflower Energy, Application for Certification Pursuant to the 21-Day Emergency Permitting Process Larkspur Energy Facility San Diego, California, March 7, 2001.

3.7.6 Conditions of Certification

This Amendment does not require changes to the conditions identified in the Noise section of the Larkspur Energy Facility Conditions of Certification (CEC 2001).