

NEPA COMPLIANCE SURVEY

~~XXXX~~ # 250

Project Information			
Project Title:	Geothermal Technologies Program – ORMAT Generator	Date:	10-22-09
DOE Code:	6730.020.61041	Contractor Code:	8067-731
Project Lead:	Lyle Johnson		
Project Overview 1. What are the environmental impacts? 2. What is the legal location? 3. What is the duration of the project? 4. What major equipment will be used if any (work over rig, drilling rig, etc.)?		This NEPA is for the existing ORMAT geothermal processing unit that was used for testing during CRADA No 2007-083. The Original project consisted of the installation and 1 year testing of the binary geothermal power unit at the Tensleep battery using the hot produced water source as the heat medium. The unit is connected to the field electrical system for dissipation of the produced energy that is metered and monitored for reliability and quality. It is planned for the unit to remain in place so that an additional approximately 2.5 years of testing can be conducted to evaluate if fouling, erosion, corrosion and any other factor that may affect the operation of the unit. No new construction or disturbance will be required. The original NEPA dated 12/20/2006 for CRADA no. 2007-003 is number 32 and consists of CX B5.1 exclusion. Prior to the conclusion of this 2.5 year test, further NEPA evaluation will be conducted.	

The table below is to be completed by the Project Lead and reviewed by the Environmental Specialist and the DOE NEPA Compliance Officer. NOTE: If Change of Scope occurs, Project Lead must submit a new NEPA Compliance Survey and contact the Technical Assurance Department.

	Impacts Anticipated?			If YES, then complete below
	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Water Quality				
Does the proposed project present potential for impacts on water resources or water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the project affect surface water quantity or quality under both normal operations and accident conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Discharge is to a tank and discharged to the Tensleep biotreatment ponds
Does the proposed project affect groundwater quantity or quality under both normal operations and accident conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Will the project area include "Waters of the State?"	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Will the project area require a Corps of Engineers permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

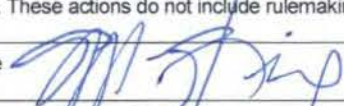

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Geology & Soils	Impacts Anticipated?			If YES, then complete below.
	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Does the proposed project present potential for impacts related to geology or soils?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the proposed project alter, excavate or otherwise disturb land area consistent with other land use and habitat area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the proposed project likely to impact local seismicity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If the project involved disturbance of surface soils, are erosion and storm water control measures addressed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Best Management Practices will be used to prevent soil and silt erosion.
Air Quality	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Does the proposed action present potential for impacts on ambient air quality under both normal and accident conditions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are potential emissions (gases and/or airborne particulates including dust) outside of the normal scope for oil field operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the project present risk to human health and the environment from exposure to radiation and hazardous chemicals in emissions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the project subject to New Source Performance Standards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the project subject to National Emissions Standards for Hazardous Air Pollutants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the project subject to emissions limitations in an Air Quality Control Region?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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	Impacts Anticipated?			If YES, then complete below.
	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Wildlife and Habitat				
Does the proposed action present potential for impacts on wildlife or habitat?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does the project impact state or federally listed threatened and endangered species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Human Health Effects				
Does the proposed project present potential for effects on human health? e.g.: Hanta virus, radiological exposure, or chemical exposure (must provide MSDS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Transportation				
Does the proposed project involve transportation of radiological sources or hazardous materials (including explosives)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Waste Management and Waste Minimization				
Are pollution prevention and waste minimization practices needed in the proposed project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Best Management Practices will be followed to prevent erosion. The area leading to and from the ORMAT will be reconditioned and seeded as required during the testing periods. Hazardous Materials will be stored in a chemical storage containment area
Does project plan establish procedures in compliance with local, state and/or federal laws and guidelines affecting the generation, transportation, treatment, storage or disposal of hazardous and other wastes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A JSA will be performed prior to beginning of the work each day. SOPs will be reviewed for compliance to state and local regulations. Hazardous Waste will be transferred to the Haz0waste yard for processing.
Cultural Impact				
Is there potential for impact on cultural (historic) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	This area was reviewed by an archeologist. No impact was determined.

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		Impacts Anticipated?			If YES, then complete below.
		Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Community Impact					
Will the proposed project introduce significantly adverse auditory, visual, or other impact?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Will the proposed project adversely affect the community's use of public land/resources?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Will the proposed project adversely affect the community's access to private land?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
NOTE: Topography Map and Wetlands Map are required to be attached. Attach applicable SOPs for Risk Assessment Level 2 & 3 and specific test procedures.					
Are permits required? If YES, list below:					Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Section below to be reviewed by Environmental Specialist and DOE NCO.					
Adequate Mitigation Measures Provided?			Adequate Mitigation Measures Provided?		
	Yes	No		Yes	No
Water Quality Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Transportation Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air Quality Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Waste Management Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wildlife and Habitat Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cultural Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Geology and Soils Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Community Impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Human Health Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Categorical Exclusion	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Approvals					
Comments and Conditions:	<p>The proposed action falls under the implementation of the Site Wide Environmental Assessment DOE -1583 and one or more of the categorical exclusions (CXes) listed in Appendix A or B of Subpart D of the DOE NEPA Implementing Procedures and would not violate applicable ES&H requirements or adversely affect environmentally sensitive resources. Additionally, the proposed action would not present any significant impact upon the human environment, and is not connected to other actions with potentially significant impacts.</p> <p>B3.6 <i>Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).</i></p> <p>B5.1 <i>Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.</i></p>				
Contractor ESS&H	S. Shire 			Date 10-23-09	
Comments and Conditions:	Based on my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1A), I have determined that the proposed action fits within the specified class of actions, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.				
DOE NEPA Compliance Officer				Date 10/26/09	
	CX5 B3.6+B5.1				



“Attendees at the RMOTC/ORMAT ribbon cutting gather by the impressive geothermal generator at RMOTC”

NEPA COMPLIANCE FORM

NEPA Compliance Survey

Project Information			
Title:	Ormat Low Temperature Geothermal Power Generation	Date:	12/18/2006
Project Lead:	Lyle Johnson		
Project Overview	The project would consist of the installation and testing of a binary geothermal power unit in the field, near the Tensleep battery, the hot produced water source. The unit would be interconnected into the field electrical system and the produced energy will be metered and monitored for reliability quality.		

The table below is to be completed by the Project Lead and reviewed with the DOE NEPA Compliance Officer.

	Impacts Anticipated?			
	Yes	No	NA	
Water Quality				If the anticipated impact might be unacceptable, recommend mitigation measures:
Does the proposed project present potential for impacts on water resources or water quality?		XX		
Does the project affect surface water quantity or quality under both normal operations and accident conditions?		XX		
Does the proposed project effect groundwater quantity or quality under both normal operations and accident conditions?		XX		
Will the project area include "waters of the State?"		XX		
Will the project area require a Corps of Engineers permit?		XX		

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	Impacts Anticipated?			If the anticipated impact might be unacceptable, recommend mitigation measures:
	Yes	No	NA	
Geology & Soils				
Does the proposed project present potential for impacts related to geology or soils?		XX		
Does the proposed project alter, excavate or otherwise disturb land area consistent with other land use and habitat area?		XX		Siting location is within a present treatment facility where the surface is already disturbed
Is the proposed project likely to impact local seismicity?		XX		
If the project involved disturbance of surface soils, are erosion and storm water control measures addressed?		XX		
Air Quality	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
Does the proposed action present potential for impacts on ambient air quality under both normal and accident conditions?		XX		
Are potential emissions (gases and/or airborne particulates including dust) outside of the normal scope for oil field operations?		XX		
Does the project present risk to human health and the environment from exposure to radiation and hazardous chemicals in emissions?		XX		
Is the project subject to New Source Performance Standards?		XX		
Is the project subject to National Emissions Standards for Hazardous Air Pollutants?		XX		

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<p>Is the project subject to emissions limitations in an Air Quality Control Region?</p>		XX		
		Impacts Anticipated?		
Wildlife and Habitat	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
<p>Does the proposed action present potential for impacts on wildlife or habitat?</p>		XX		
<p>Does the project impact state or federally listed threatened and endangered species?</p>		XX		
Human Health Effects	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
<p>Does the proposed project present potential for effects on human health? e.g.: Hanta virus, radiological exposure, or chemical exposure (must provide MSDS)</p>		XX		
Transportation	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
<p>Does the proposed project involve transportation of radiological sources or hazardous materials (including explosives)?</p>		XX		
Waste Management and Waste Minimization	Yes	No	NA	If the anticipated impact might be unacceptable, recommend mitigation measures:
<p>Are pollution prevention and waste minimization practices needed in the proposed project?</p>		XX		
<p>Does project plan establish procedures in compliance with local, state and/or federal laws and guidelines affecting the generation, transportation, treatment, storage or disposal of hazardous and other wastes?</p>		XX		

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	Impacts Anticipated?			
	Yes	No	NA	
Cultural Impact				If the anticipated impact might be unacceptable, recommend mitigation measures:
Is there potential for impact on cultural (historic) resources?		XX		
Community Impact				If the anticipated impact might be unacceptable, recommend mitigation measures:
Will the proposed project introduce significantly adverse auditory, visual, or other impact?		XX		
Will the proposed project adversely affect the community's use of public land/resources?		XX		
Will the proposed project adversely affect the community's access to private land?		XX		

NEPA Compliance Determination (to be completed by DOE NCO)					
	Yes	No		Yes	No
Water Quality Impacts		✓	Transportation Impacts		✓
Air Quality Impacts		✓	Waste Management Impacts		✓
Wildlife and Habitat Impacts		✓	Cultural Impacts		✓
Geology and Soils Impacts		✓	Community Impact		✓
Human Health Impacts		✓	Categorical Exclusion	✓	

Approvals			
Comments and Conditions:	<p><i>This is a pilot project, at the end of the project, approximately 15 years, the system will be evaluated for extended use. At this time the NEPA requirements will be reevaluated.</i></p> <p><i>The project site is a level area that has been previously disturbed. No significant environmental impacts from this pilot project are anticipated.</i></p> <p style="text-align: right;"><i>Ref Johnson 12/20/06</i> <i>Jim B. Stille 12/20/06</i></p>		
DOE NEPA Compliance Officer	<p><i>Michael J. L</i></p> <p><i>CX B 5.1</i></p>	<p><i>12/20/06</i></p>	Date