

## 4.9 PUBLIC HEALTH AND SAFETY

### ***Proposed Action***

#### **Direct Impacts**

Public health and safety issues from geothermal exploration generally include use of hazardous materials, wildfires, worker safety, and the safety of occasional visitors or members of the public.

Exploratory drilling would involve some hazardous materials at the drill sites. These materials would include, but would not be limited to, the use of drilling additives and mud, diesel fuel, lubricants, solvents, oil, equipment/vehicle emissions, geothermal water, and laboratory materials. The transport, use, or disposal of hazardous materials could impact workers, the public, and the environment; however, training, experience, and knowledge of the drilling crews combined with the use of BMPs (e.g. secondary containment) would reduce the impact.

Exploratory drilling activities (equipment sparks, welding, worker smoking) would increase the potential for a fire in the project area. While the Great Basin is known for its year-round dry climate and occurrence of wildfires from July through September, the project area is populated by sparse vegetation and has minimal fire history. Properly implemented standard operating procedures would minimize the risk of fire.

Drilling activities involve the use of heavy equipment and dangerous materials. These activities and materials pose risks to the workers. Proper installation and operation of equipment, personal protective equipment, and worker training would reduce the risk to worker safety.

#### **Indirect Impacts**

If a productive geothermal resource is discovered, additional deep exploration drilling which would be implemented. Additional drilling would involve additional activities of the same nature, additional amounts of the same types of materials and use of the same types of equipment. The risks to public health and safety would be the same.

Other indirect impacts involving hazardous materials would involve the routine transport, use, or disposal of hazardous materials. The hazardous materials associated with drilling are common and the packaging and transportation of the materials is routine.

#### **Indirect Impacts Based on a Reasonably Foreseeable Development Scenario**

Should the resource prove suitable a geothermal power plant could be constructed. The potential power plant has not been designed, however construction, operation, and maintenance activities can affect general public safety in staging areas and at the geothermal power plant. The construction would involve the use of heavy equipment and dangerous materials. These activities and materials pose risks to the workers and could affect public safety for any non-worker in the immediate vicinity of the activities.

Proper installation and operation of equipment, personal protective equipment, and worker training would reduce the risk to worker safety. Other precautions involving, for example, safe passage past construction sites, fencing around easily accessible and dangerous structures to prevent unauthorized access, and proper installation and operation of equipment to prevent electrical shock or fire would minimize impacts to public health and safety. The direct impacts of the construction and operation of a potential geothermal power plant to public health and safety would be low.

Subsequent NEPA analysis would determine the actual impact to public health and safety.

***No Action Alternative***

No impacts on public health and safety are expected from implementing the No Action Alternative.