3.1.13 Public Health and Safety

Effects related to blasting are discussed in Section 3.1.5, Noise and Vibration.

3.1.13.1 Affected Environment

The Project area is characterized by rugged terrain and mixed coastal sage scrub and semidesert chaparral vegetation. Large areas onsite are disturbed by previous and continuing mining operations. Surrounding land uses include surface mining and open space. Open space uses include recreation and preservation of natural resources. The nearest residence is located ¼ mile south of the Project. In addition, Agua Dulce Air Park, rural residences, and one RV park are located in the Project vicinity. Additional residential development has been proposed for the Bee Canyon area.

Current access to the Project area is limited because of the Project area terrain and current mining operations.

Regulatory Framework

Two major pieces of federal legislation govern the disposition of hazardous or solid wastes, as they affect public health: the Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC 6901 *et seq.*); and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended (42 USC 9615).

RCRA establishes guidelines and standards for hazardous waste generation, transportation, treatment, storage, and disposal. RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments (HSWA), which includes regulations on waste minimization, land disposal of hazardous wastes, and underground storage tanks. Under the RCRA Program, major HSWA provisions include:

- land disposition restrictions;
- ban on liquids in landfills;
- minimum technological requirements for landfills and surface impoundments;
- new regulation for solid waste management units (SWMUs);
- new regulation for underground storage tanks (USTs); and
- waste minimization requirements.

Under RCRA, there are three main groups that make up the RCRA regulated community:

- companies that generate hazardous waste from their industrial processes and other activities;
- companies that transport hazardous waste from one location to another;
- companies that subsequently manage generated hazardous waste by treatment, storage, or disposal.

RCRA hazardous waste would not be expected to be generated, treated or transported as a result of this project, therefore RCRA is not applicable to the project.

CERCLA regulates cleanup of hazardous waste sites, and is also known as "Superfund." CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). This Act establishes standards for cleanupp activities and also stipulates the conditions for offsite disposal of wastes. CERCLA is not applicable to this project because of the absence of hazardous waste on the site.

The proposed Project operations do fall within the requirements of 40 CFR, Part 112 and California H&S Code, Chapter 6.67, §25270, for a Spill Prevention, Control and Countermeasures Plan (SPCCP). The purpose of the SPCCP is to identify procedures and controls for aboveground storage tanks that prevent and minimize the release of petroleum products to navigable waters or adjoining shorelines. The plan covers the storage of diesel, hydraulic oil, motor oil, and waste oil in aboveground storage tanks with capacities greater than 55 gallons. No underground tanks are planned for the facility. Additional information on the SPCCP is included in Section 3.1.4, Water Quality.

Valley Fever

Valley Fever is primarily a disease of the lungs that occurs in the southwestern U.S. and northwestern Mexico. It is caused by the fungus *Coccidioides immitis*, which grows as a mold in soils that are sandy and high in salt, in areas of low rainfall, high summer temperatures, and moderate winter temperatures. These fungal spores become airborne when the soil is disturbed by winds, construction, farming, and other activities. In susceptible persons, infection occurs when a spore is inhaled. Within the lung, the spore changes into a larger, multicellular structure called a spherule. The spherule grows and bursts, releasing endospores. Each released endospore has the capacity to develop into mature spherules.

In California, the risk of infection is highest from June through November, and persons the most susceptible are those who work directly with the soil, including workers in construction, agricultural, archaeology, and others working with disturbed desert soils. The fungal spores are distributed unevenly in soil and are most abundant in soils around rodent burrows, Indian ruins, and burial grounds. It is also very important to note that the spores are usually found 4 to 12 inches below the surface of the soil, and typically in soils that have not been disturbed. In addition, the spores are susceptible to ultravoilet light and will not survive on the ground in direct sunshine (Valley Fever Center for Excellence, personal communication, 1999). These may be key in determining relative risk of the Project site as a contributor to Valley Fever (Galgianai 1993; Kirkland and Fierrer 1996; Snyder and Galgianai 1997).

Asthma

Asthma is a chronic disease caused by inflammation and swelling of the small airways in the lungs. When the airways become swollen and congested with mucus, muscle spasms around the airways block the normal flow of air, causing patients to cough, wheeze and have difficulty breathing.

For reasons not fully understood, the bronchi of some people are hypersensitive to certain environmental "triggers." Exposure to these triggers can cause asthma attacks in people with asthma. These are called asthma triggers. There are two basic types of asthma triggers, allergic triggers, also known as allergens, and non-allergic triggers. Allergic triggers include molds, animal dander, house dust mites, cockroaches, some food additives and some medications. Non-allergic triggers include tobacco and wood smoke, chemicals, perfumes, and outdoor air pollution.

Most exposures are believed to occur within the home and indoor environments. However, recent studies with children have found that children with asthma are more affected by severe air pollution than children without asthma.

Silcosis

Silicosis is a nonreversible lung disease caused by overexposure to respirable crystalline silica. Overexposure to dust that contains microscopic particles of crystalline silica can cause scar tissue to form in the lungs, with reduces the lungs' ability to extract oxygen from the air. Silica is the second most common mineral in the earth's crust and is a major component of sand, rock and mineral ores. However only a small fraction of this naturally occurring silica occurs as crystalline silica. Testing of the material at the Project site shows that the material to be mined contains less than 5 percent crystalline silica.

Since silicosis requires an overexposure to crystalline silica, it is almost exclusively limited to cases involving workers who work in high silica dust environments. Some examples of industrial activities which pose the greatest risk for worker exposure include abrasive blasting, mining activities involving cutting or drilling through sandstone and granite, grinding ceramics, clay and pottery, stone cutting, glass etching, and agricultural field operations. Even in these operations, silicosis is 100 percent preventable with the implementation of basic dust control measures to reduce worker exposure to less than the OSHA Permissable Exposure Limit (PEL) of 10 mg/m^3 of crystalline silica.

Conjunctivitis

Conjunctivitis is an inflammation of the conjunctiva, the thin, transparent layer that lines the inner eyelid and covers the white part of the eye. There are three main types of conjunctivitis, infections, allergic and chemical. The infectious type, commonly called "pink eye", is caused by a contagious virus or bacteria. Individual allergies to pollen, cosmetics, animals or fabrics can cause allergic conjunctivitis. Irritants like air pollution, fumes, and chlorine in swimming pools may produce the chemical form.

Common symptoms of conjunctivitis are red watery eyes, inflamed inner eyelids, and a scratchy feeling in the eyes. Mucus may be present in bacterial or viral infections, but is not reported as a sympton of allergic or chemical conjunctivitis. Allergic and chemical conjuctivitis exhibit symptoms similar to hay fever.

3.1.13.2 Environmental Effects

Significance Criteria

Impacts on public health and safety will be considered significant if the Project activities endanger property or life in the Project vicinity or if Project activities are not in compliance with applicable design codes or regulations.

Direct and Indirect Effects

Public Health Risks

The major environmental safety issues associated with the Project include public health risks associated with potential spills of fuels or hazardous materials and safety issues involving public access in and around the Project area. Fire suppression is discussed under Fire Protection Services in Section 3.1.6. The fire threat from the Project is not considered significant because removal of vegetation in the active mining area will reduce fire hazards in the area. Mitigation measures cited in Section 3.1.6 will further reduce risk from fire. Traffic safety issues are discussed in Section 3.1.11 (Traffic).

The Project includes two 6,000- to 10,000-gallon diesel aboveground storage tanks. Storage of fuel onsite will be required to comply with state and federal regulations, and storage and dispensing permits will be obtained as necessary. Any accidental release of fuel or hazardous material will be required to be immediately reported to local fire emergency personnel and appropriate county and state agencies. For any spill, the County Environmental Health Department and State Office of Emergency Services must be contacted. For a spill impacting any type of water, the EPA, among others, must be contacted. The SPCCP contains detailed emergency response measures that will be implemented to mitigate potential adverse impacts from accidental spills (see Mitigation Measures PHS1 and Appendix B2).

Mining operations may require occasional blasting onsite. However, no explosives will be stored onsite, and blasting will be conducted by an independent contractor with a valid California "Blaster License" pursuant to State of California Construction Safety Orders (Cal-OSHA) Article 8, Section 1550-1580. Explosives will be transported to the site by the licensed blasting company, and safety during transportation of blasting material will be ensured by the licensed blaster pursuant to Cal-OSHA Article 8, Section 1564 and the California Vehicle Code, Division 14 for requirements for vehicle transportation of explosives on public highways, streets, or roads. Any use of explosives onsite will be in accordance with the Mine Safety and Health Administration (MSHA) and other applicable regulations.

All mining operations will observe proper safety regulations in accordance with the MSHA. This includes the area of the existing high mine wall to be buttressed. Significant impacts are avoided through compliance with MSHA requirements (see Mitigation Measure PHS2).

Potential significant impacts on public safety would occur if anyone comes in contact with mining operations. Safety risks to recreationists will increase over time as the mine areas

increase in size. Public access will be restricted to reduce the potential for accidents. Mining areas will be fenced and signs will be posted restricting access to Project roads and mining sites. The facility will also be gated to control public access. Significant impacts are avoided through implementation of mitigation measures PHS3 and PHS4.

The operation of the Project includes compliance with all regulations and requirements of Occupational Safety and Health Administration (OSHA), MSHA, and all applicable County 1990 Uniform Fire Codes, including Article 77, Explosives and Blasting Agents, and Article 79, Flammable and Combustible Liquids (see Mitigation Measure PHS5). Upon compliance with these regulations, no significant impacts should occur.

Generation of Solid Waste

The Project will generate a minimal amount of solid wastes during construction and operations. Potentially, there will be five types of waste generated, including:

Construction wastes: There will be a minimal amount of waste generated by the construction of the facility. The waste will be the result of constructing:

- 55' x 62' maintenance building
- Two (2) 70' x 14' scales
- 10' x 22' scale house
- 55' x 35' office building

TMC does not anticipate generating any demolition waste during the construction phase.

Mining Operations wastes: Mining operations will not create wastes that will be sent to a landfill. The excess natural fines generated during processing of minerals at the facility will either be sold, stored onsite, or used for revegetation.

Green wastes: Green wastes will be generated when land is cleared for mining. TMC expects to clear 68 acres during the initial construction phase and will probably clear another 10 acres per year during the mining phase. However, because this site is sparsely vegetated, a significant amount of green waste will not be generated. All green waste will be retained onsite and composted for use in the proposed concurrent revegetation program.

The proposed facility is not designed to have landscaping that will generate green waste.

Employee waste: There will be 15 employees working at this site during Phase 1 and 30 employees during Phase 2. Most of these employees will be equipment operators and will only generate a small amount of waste from meals and the maintenance shop.

Office waste: Of the employees listed above, a few will be office employees who will generate office waste. The majority of office wastes are paper products and will be separated for recycling. There will be a minimal amount of waste set to a landfill.

The California Solid Waste Reuse and Recycling Access Act of 1991 requires recycling of solid wastes. The Project includes separation of recyclables consistent with the Act and generates a minimal amount of such wastes. Consequently, there are no significant adverse impacts of the Project and no mitigation measures are required.

Valley Fever

The TMC sand and gravel mining operation would be disturbing 187 acres of soil over approximately 20 years. The amount of surface disturbance during the life of the mining will be approximately 15 acres per year. Once the top 12 inches have been excavated, the active mining operations pose little risk to the public and site workers since it is extremely unlikely to find spore deeper than 12 inches below the surface. Further, the per year surface acreage to be disturbed at the Project site, when compared to other grading operations for development in the area, is significantly less than the projections for surface disturbance for individual area-wide residential developments.

Additionally, most of the area of surface disturbance is located on the south side of the ridge in areas which receive strong, direct sunshine and some of the mining will occur in an area of previous disturbance. Because spores are most likely to occur in undisturbed areas and are susceptible to ultravoilet light, these factors reduce the potential for the spores to occur on the TMC Project site.

Dispersion of Valley Fever is generally related to high wind or dust storms. The 1994 Northridge earthquake is associated with 170 cases found in Ventura County as a result of landslides triggered by the quake (Valley Fever Center for Excellence, personal communication, 1999). As discussed in Section 3.1.7, Air Quality, the TMC Project includes mitigation to control dust and is subject to SCAQMD rules and regulations which govern operations during windy conditions including a series of measures which must be implemented when wind speeds exceed 25 mph. These high wind measures are included in the submission of a "High Wind Fugitive Dust Control Plan" to be submitted by TMC to the SCAQMD for approval. The SCAQMD being the local regulatory and permitting agency with respect to air quality will then determine what additional measures must be followed or if operations are to be curtailed.

Given the Project's location, the proposed mitigation measures, and applicable SCAQMD rules, it is unlikely that occurrences of Valley Fever would be associated with the Project. The Project will comply with all applicable codes and regulations, and will not endanger human life due to Valley Fever risk. Accordingly, there are no significant impacts relating to Valley Fever for the Project.

Asthma

Ambient air quality standards are designed to protect public health and safety including sensitive receptors such as asthmatics. The Project has been found to be consistent with the AQMP and in conformance with the SIP. Therefore public health and safety will be protected by compliance with applicable regulations and consistency with these plans.

Silicosis

The modeling results for Phase 2 of the Project result in an average annual concentration of total PM-10 at the Project boundary of approximately 0.01 mg/m^3 (10 $\mu g/m^3$), which would result in a crystalline silica concentration of less than 0.0005 mg/m^3. This is 20 thousand times less that the PEL for crystalline silica. Thus impacts related to crystalline silica would not be significant.

Conjunctivitis

In most cases conjunctivitis is caused by bacterial or viral infections. The incidence of air pollution induced conjunctivitis is so low that it is not expected to be of any concern in the Project area.

3.1.13.3 Mitigation Measures

The proposed Mining Plan has been designed to mitigate for potential impacts on public safety. These Project measures include the following:

PHS1. Detailed emergency plans are presented in the SPCCP and will be strictly followed.

PHS2. All MSHA and other applicable regulations will be strictly enforced.

PHS3. Public access will be restricted to reduce the potential for accidents. Mining areas will be fenced, and signs will be posted restricting access to Project site.

PHS4. The facility will be gated to control public access.

PHS5. Compliance with all regulations and requirements of OSHA, MSHA, and all applicable County 1994 Uniform Fire Codes will be observed.

PHS6. TMC will not remove topsoil on high wind days.

3.1.13.4 Unavoidable Significant Adverse Effects

The measures proposed above can be feasibly implemented and will reduce the identified impacts to a less-than-significant level. No potential unavoidable significant adverse impacts will remain after mitigation.