4.7 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-Than- Significant With Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the proposal:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				

	Potentially Significant Impact	Less-Than- Significant With Mitigation Incorporated	Less-Than- Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				

ENVIRONMENTAL SETTING

Regional Setting

Any contamination associated with oil and gas production is the result of spills or other accidents from the use of hazardous materials during routine operations. For example, the gas compressors leak oil while in operation. Although the company has taken precautions to contain the oil, there could still be soil contamination beneath the compressor buildings. Testing after demolition will determine the extent (if any) of contamination present and remediation required.

Operating Industries Inc. Landfill

Currently EPA has designated as a Superfund site the Operating Industries Inc. (OII) Landfill that borders the main storage facility parcel and the Monterey Park parcel. The OII Landfill is currently shut down and is being remediated for contamination of the soil and groundwater beneath with hazardous chemicals. The EPA is regulating the clean up according to strict regulatory controls and monitoring.

Local Setting

The Montebello Gas Storage Facility (MGSF) has been operating since 1956 when Southern California Gas (SCG) began injecting natural gas in the Montebello Oil Field. Before 1956 the field was the site of extensive oil and gas production. In 1997, SCG ceased injecting gas into the storage facility, and have remained in a state of minimal gas withdrawal ever since. Prior to 1997, routine MGSF operations included the injection and removal of natural gas from wells located at the MGSF.

The MGSF are located in the cities of Montebello and Monterey Park in Southern California and are surrounded by residential communities. These SCG properties include the main facility site, the eastern site, the Monterey Park site, and the 14 "town sites". All of the buildings, equipment and associated assets will be demolished and/or removed from the property as a result of decommissioning the plant.

This section focuses on chemical hazards and physical hazards. Geohazards and hazards pertaining to natural gas emissions are discussed in the Geology section (4.6).

Hazardous Materials

Appendix F summarizes hazardous materials (including wastes) reported as being present at the Montebello Storage Field when storage operations ceased in 1997. These substances include, but are not limited to several chemicals listed within the State of California Government Code Section 65962.5. Some additional hazardous materials are found at the MGSF, but are used in quantities smaller than the 55-gallon (or 200 cubic feet for gases) reporting threshold.

Gasoline Storage Tank. The Montebello Fire Department permits a gasoline storage tank on the premises. Leakage detection systems required by law for this tank are installed and operational.

Hazardous Wastes

The following list identifies hazardous wastes typically generated at storage fields and the means through which SCG disposes of those wastes:

- Used engine oil: Sent via vacuum truck to Evergreen in northern California, where it is recycled; SCG purchases the recycled oil for use in its motor vehicles;
- Used antifreeze: Sent to American Environmental Services in Palo Alto where it, too, is recycled; SCG purchases the recycled antifreeze for use in its motor vehicles;
- Used fuel and oil filters: Sent to Kettleman Hills in the San Joaquin Valley, a landfill that accepts hazardous waste;
- Friable asbestos: Double bagged and placed in drums before being sent to Kettleman Hills, a landfill that accepts hazardous waste;
- Acids used in equipment to detect sulfur: Neutralized and stabilized, and sent to Kettleman Hills Landfill:
- Spent aerosol cans: Placed in drums and manifested to Ensco in Wilmington, Southern California; Ensco sends the waste to Arkansas for incineration;
- Oily rags, contaminated personal protective materials: Sent to Kettleman Hills Landfill;
- Off-spec grease for valve lubrication: Sent to ChemWaste/Osco in Azuza;
- Copper sulfate solution: Neutralized and sent to Kettleman Hills Landfill;
- Lead acetate tapes: Macro-encapsulated and sent to Kettleman Hills Landfill.

Soil Contamination. The MGSF, prior to 1956, was the location of extensive oil and gas production. Some soil contamination likely remains from those activities as well as from some minor spills during gas storage operations.

With respect to oil field contamination, DOGGR requires that soil contamination be remediated during well abandonment. Table 4.7-1 summarizes well abandonment remediation that has been performed at the MGSF within the past eight years.

Remediation of contamination within the past eight years resulting from storage field operations includes 255 tons of petroleum hydrocarbon-contaminated soil removed from the tank farm area.

Table 4.7-1: Well Abandonment Remediation

Well	Remediation Date	Activity
Bartlett-1	September 1992	Soil with TRPH (Total Recoverable Petroleum Hydrocarbons) concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The remediation report does not state volume of soil excavated nor how it was managed.
Travis-1	October 1992	Soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The report does not state volume of soil excavated nor how it was managed.
Wilcox No. 4	February 1993	Soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The report does not state volume of soil excavated nor how it was managed.
Dore No. 2	February 1993	Soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The report does not state volume of soil excavated nor how it was managed.
Howard & Smith, British American No. 2	February 1993	Soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The report does not state volume of soil excavated nor how it was managed.
Howard & Smith #8	September 1993	135 tons of soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The excavated soil was treated off-site by thermal desorption.
La Merced 34	December 1993	92 tons of soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The excavated soil was treated off-site by thermal desorption.
Montebello#2-16	December 1993	Sampling confirmed no remediation was required.
P.J. Howard #5	July 1994	158 tons of soil with TRPH concentration 100 ppm and greater was excavated and the area backfilled with clean soil. The excavated soil was treated off-site by thermal desorption.
Todd No. 1	November 1996	Sampling confirmed no remediation was required.
Howard & Smith #10	Current	Surface facilities have been removed; soil contamination, if any, will likely be removed within the next month.

SOURCE: Chambers 2000

Other areas of the MGSF lands may have contamination; however, no testing has confirmed or cleared this risk. These areas include, but are not necessarily limited to the areas around:

Main Facility -

- Blowdown stacks
- Former 1,200 gallon waste oil underground storage tank
- Dehydration units
- Tank farm
- · Separators behind well site wall
- Shallow Zone compressor

- · Former fire training pit
- Maintenance building

General MGSF Sites -

- Drill sites
- · Above and below ground piping
- Abandoned oil pipelines
- Sumps used for collection of waste liquids

PCB's, Asbestos, and Lead-Based Paint. Polychlorinated biphenyls (PCBs) and other hazardous hydrocarbons may be encountered within contaminated concrete foundations, soils beneath transformers and/or other rotating machinery, and abandoned sump pump sites.

Non-friable asbestos is found on the insulation for one of the dehydration rectifiers and in the boiler retention tank pipe insulation. Asbestos may also occur on two exhausts; however, no confirmation has been made.

Asbestos fibers enter air and water from the demolition or wearing down of man-made asbestos products. Small fibers and fiber-containing particles may be carried long distances by wind or water currents before settling. Asbestos fibers are not able to move through soil and are not broken down to other compounds in the environment.

Wastes from salvaging and abandonment activities include lead paint that may be in or on buildings, equipment and piping. Lead from lead-based paint can get into the environment through chipping or demolition of buildings and machinery (ATSDR 2000).

REGULATORY SETTING

The current regulatory framework relevant to hazards and human health encompasses process risk related to the use of hazardous materials and management of risks from hazardous materials that have been released to the environment. With respect to chemical hazards, the use, storage, and disposal of hazardous materials and wastes are regulated through a network of sometimes overlapping federal, state, and local laws and regulations. Various government agencies are responsible for implementing these laws and enforcing their requirements.

Federal and state laws require planning to ensure that hazardous materials are properly used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to reduce injuries to human health, safety, or the environment. Businesses must store hazardous materials appropriately and train employees to manage them safely. Hazardous waste laws impose "cradle-to-grave" liability, requiring generators of hazardous waste to handle it in a manner that protects human health and the environment to the extent possible. Both federal and state laws have established programs to identify hazardous waste sites, to require site remediation, and to recover the costs of site remediation from polluters. The following discussion briefly summarizes regulations that must be complied with regardless of ownership of the generating station.

Federal

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Commonly known as Superfund, this federal law defines reportable quantities for spilled materials and the process for investigation and cleanup of contaminated sites. CERCLA also establishes a National Priorities List and outlines a liability and response mechanism for releases of oil and hazardous materials.

Superfund Amendments and Reauthorization Act of 1986

This law establishes public reporting of the use of certain chemicals under Title III, also known as the Emergency Planning and Community Right-to-Know Act. In California, some of the provisions of SARA Title III are implemented locally by the city or county health department through the Business Plan and hazardous material inventory requirements

Clean Water Act (CWA)

The CWA sets up the framework through which permits to discharge waste to surface waters are authorized- The National Pollutant Discharge Elimination System (NPDES) permit typically has conditions specific to the permitted operation and may set limits on acidity (pH), chemical concentrations, oil and grease, dissolved and suspended solids, and temperature. The CWA also prohibits the discharge of pollutants to storm water.

Oil Pollution Act of 1990 (OPA)

OPA regulations supplement existing laws regulating the storage and handling of oil As defined in OPA, Spill Prevention Countermeasure and Control (SPCC) Plans are required for facilities storing bulk oil OPA also added requirements for facilities presenting a threat to navigable waters, including preparation of an FRP that readies a facility for response to potential worst-case spills. OPA includes employee training requirements related to prevention of and responses to releases.

Occupational Safety and Health Administration (OSHA)

OSHA regulations contained in Title 29 CFR and Cal-OSHA regulations codified in Title 8 contain employee safety provisions that attempt to minimize the hazards for employees in the workplace.

Asbestos Hazard Emergency Response Act (AHERA) and Clean Air Act (CAA)

The AHERA provides classification systems for asbestos-containing materials and specifies the type and quantity of required training or workers involved with asbestos projects. The CAA establishes requirements for removal of asbestos-containing materials.

Toxic Substances Control Act (TSCA)

The TSCA includes requirements for the storage, use, and disposal of PCB-containing materials.

Department of Transportation (DOT)

Physical hazards, storage field maintenance and operations within the MGSF are under the federal jurisdiction of the DOT. The DOT regulates the transportation of hazardous materials between states. Both federal and state agencies specify driver training requirements, load labeling procedures, and container specifications. The DOT also indirectly regulates the transportation of natural gas through pipelines according to the Natural Gas Pipeline Safety Act. The Act's requirements, including designing pipelines to maximize safety (e.g., installing corrosion protection), routinely inspecting pipelines, preparing for possible emergencies, and reporting injuries and physical damage caused by accident, have been adopted by the California Public Utilities Commission (CPUC).

State of California

Title 22 of the California Code of Regulations defines, categorizes, and lists hazardous materials and wastes. Title 22, defines a hazardous material as:

a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present of potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Hazardous wastes are categorized in Title 22 as either hazardous wastes as defined in the Resource Conservation and Recovery Act (RCRA) or non-RCRA hazardous wastes. Title 22 lists chemical compounds that are presumed to make a material or waste hazardous to the environment.

Hazardous Substances Account Act

This act is the Superfund equivalent for the State of California. It includes the same provisions as CERCLA but also provides for cleanup of hazardous waste sites not listed in the National Priorities List. The Department of Toxic Substances Control is charged with cleanup monitoring of sites identified by the HSAA.

California Water Code (CWC)

The CWC includes provisions of the federal CWA and water quality programs specific to California. The CWC requires reporting, investigation, and cleanup of hazardous material releases that could affect waters of the state (including stormwaters).

California Aboveground Petroleum Storage Act

The California Aboveground Petroleum Storage Act is implemented by the Regional Water Quality Control Boards (RWQCBs), regulates the storage of petroleum in ASTs and requires construction methods and monitoring to prevent petroleum releases.

California Health and Safety Code Section 25534 (CAH&SC)

This section of the CAH&SC requires businesses that handle amounts of Acutely Hazardous Materials (AHMs) in excess of certain quantities to develop a Risk Management Plan (RMP). The RMP encompasses process hazards; potential consequences

of releases; and documentation, auditing, and training relative to the AHMs above threshold quantities at the generating station. Regulated AHMs may include aqueous ammonia and sulfuric acid.

DOGGR and CPUC

Physical hazards, storage field maintenance and operations within the MGSF are under the jurisdiction of the Department of Oil Gas and Geothermal Resources (DOGGR) and the California Public Utilities Commission (CPUC). DOGGR regulates the operations and maintenance of natural gas storage fields and certain aboveground piping is regulated by the CPUC.

Storage Tanks

Hazardous materials are typically stored in underground or aboveground storage tanks. Laws and regulations regarding underground storage tanks used to store hazardous materials (including petroleum products) require that owners and operators register, install, monitor, and remove their tanks according to established standards and procedures. Releases are to be reported. Owners of above-ground storage tanks containing petroleum products are to prepare and implement spill prevention and response strategies, and to contribute to the Environmental Protection Trust Fund that is used to respond to some spills. Proper drainage, dikes and walls are required to prevent accidental discharge from endangering employees, facilities, or the environment.

Local

SCG has procedures and a program designed to prevent or to respond to accidents, injuries, and releases at the MGSF. Engineering measures are in place to prevent releases and to contain releases that may occur. The program is included within SCG's Consolidated Contingency Plan. The Contingency Plan includes the hazardous materials business plan, hazardous materials reporting requirements, emergency response plans and procedures, training procedures, emergency contacts, and a hazardous site map. The Consolidated Contingency plan is located in appendix F.

ENVIRONMENTAL IMPACTS

The following outlines the significance criteria utilized to assess potential environmental effects based on established regulatory framework or established science.

Significance Criteria

- Decommissioning and development of the storage facility would not create a significant hazard to the public through routine handling of hazardous materials
- Decommissioning the MGSF has a potential to create a significant hazard to the public or the environment through spills or accidents involving the release of hazardous materials
- Decommissioning and development of the MGSF lands would is not located within one-quarter of a mile of a school, or a public or private airstrip
- Decommissioning and abandonment of the MGSF properties occurs on sites containing hazardous materials pursuant to California Government Code Section 65962.5 that

- could create a significant hazard to the public or environment during any type of accident or spill
- Project interferes with the current emergency response plan enacted by SCG and the Montebello Fire Department
- Project exposes people or structures to a significant risk involving wildland fires at the Main and Eastern Sites.

Decommissioning and Sale

Checklist Question a) Decommissioning and abandonment of the Project sites and facilities will not create a significant hazard to the public through routine use, transport, or disposal of hazardous materials. The abandonment of the site is not routine and will not require routine acts therefore there is no impact or mitigation required.

Checklist Questions b) and d) In relation to the decommissioning and abandonment of the sites and facilities, hazards fall into two categories: geologic hazards and hazardous substances.

Geologic Hazards

As stated in Section 4.6, small amounts of storage gas have, in the past, seeped into shallower, non-Storage Zones, and from there, seeped to the surface via wells or other pathways. Hazards resulting from this issue are discussed in further detail in section 4.06.

Hazardous Materials and Wastes

Hazardous materials could be encountered during the removal of surface facilities and from investigation/ remediation of historic spills. Hazardous materials, including hazardous wastes, at the MGSF are of two types. First, there are inventories of materials used in operating the MGSF. During abandonment of the storage field, SCG will transfer these substances and products to another SCG facility following DOT regulations. These regulations require that hazardous materials weighing 1,000 pounds or more be manifested and transported by a registered hauler in a properly placarded truck. Hazardous materials weighing between 440 and 1,000 pounds may be sent with only a bill-of-lading, and hazardous materials weighing less than 440 pounds do not need shipping papers. These types of hazardous materials are listed in appendix F.

The second type of hazardous substance that may exist on the Montebello Properties at the time of decommissioning are hazardous wastes. Transportation of hazardous waste is subject to the same shipping regulations as described above for useful hazardous materials. Hazardous wastes will generally be of two types:

- Wastes resulting from operations or abandonment activities,
- Excavated soil that has been contaminated by historic spills of hydrocarbons or other substances used or resulting from former oil and gas production or storage field operations.

PCB's, Asbestos, and Lead-Based Paint. The typical hazardous waste for a gas or oil facility would result from remediation of historic spills resulting in soil contamination on the MGSF. This contamination could be the product of spilled chemicals listed under the State of California Government Code Section 6596.2 that are hazardous to the environment.

Polychlorinated biphenyls (PCBs) and other hazardous hydrocarbons may be encountered within contaminated concrete foundations or soils beneath transformers and/or other rotating machinery. The International Agency for Research on Cancer and the USEPA have determined PCBs to be probable carcinogens (ATSDR 2000). Sumps located in the vicinity of these operational areas have the potential to be contaminated as well.

Wastes from salvaging and abandonment activities include asbestos or lead paint that may be in or on buildings, equipment and piping. Asbestos may be found in pipe or building insulation, or ceiling or floor tiles. Although the asbestos is not currently friable, cutting or breaking the material during salvage operations could make it friable.

Potential human exposures to Asbestos-Containing Materials may occur by inhaling asbestos fibers suspended in the air. Fibers either are deposited in the air passages in the lungs or are removed from the lung by coughing. Asbestos fiber buildup in the deepest parts of the lung can lead to scar-like tissue buildup, resulting in difficult breathing and decreased blood flow to the lungs. This condition manifests itself over a number of years and can eventually lead to disability, cancer or death in people exposed to high levels of asbestos (ATSDR 2000).

Lead can affect almost every organ and system in the human body. The most sensitive is the central nervous system, particularly in children. Lead also damages the kidneys and the immune system. Lead from lead-based paint can get into the environment through chipping or demolition of buildings and machinery (ATSDR 2000).

Mitigations 4.7-1, 4.7-2, 4.7-4, and 4.7-5 address mitigation to prevent a hazard to the public created from hazardous materials and wastes.

Landfill

Groundwater plumes have been reported to migrate near or into the project area from the landfill that may contain hazardous contaminants. Mitigation 4.7-3 addresses actions to be taken to prevent any extra hazards derived from the landfill during decommissioning of the facility or future development of the land.

Checklist Questions c), e), and f) No schools or airstrips are located within close enough proximity to the project site that would be adversely affected by any hazardous materials located on that site. Therefore, there is no impact or mitigation required.

Checklist Question g) The current emergency response plan followed by SCG is designed for present operation of the facility. Mitigation 4.7-5 requires the plan to be updated to include precautions taken during decommissioning and abandonment of the facility.

Checklist Question h) Some abandonment and decommissioning activities would take place on the Main Facility and the East Site, which contains some flammable vegetation. These activities would increase a fire hazard in areas with flammable brush, grass, or trees, thus a significant impact would occur. Mitigations 4.7-6 address reducing the fire hazard during decommissioning.

Future Development

Checklist Question a) There will be no hazard created to the public or the environment during development after the abandonment and remediation of the SCG lands through routine transport, use, or disposal of materials.

Checklist Questions b) and d)

Storage Field and Lots Located Above Abandoned Wells

Any contamination created or discovered on the SCG lands will be remediated during abandonment of the gas storage facility and will not be an issue during future development.

Under terms of the project approval letter issued by DOGGR that authorizes the gas storage project in Montebello, the storage operator is responsible for monitoring all active and abandoned wells within the field. This responsibility currently is with SCG but would transfer to a new owner if the field were sold. Mitigation for future gas monitoring of abandoned wells is addressed in section 4.06 of this document.

Checklist Questions c), e), and f) No schools or airstrips are located within close enough proximity to the project site that would be adversely affected by any hazardous materials located on that site. Therefore, there is no impact or mitigation required.

Checklist Question g) The emergency response plan will be updated before development of the lots and therefore no mitigation is required.

Checklist Question h) Mitigation to reduce the fire hazard will be addressed during abandonment of the facility and wells before development will occur. Fire hazards associated with development over abandoned wells is addressed in section 4.06 of this document. Any other fire hazards associated with development of the lots will be addressed by the construction company that will perform the work.

MITIGATION MEASURES

Decommissioning and Abandonment

Mitigation Measure 4.7-1 - PCB's, Asbestos, and Lead Paint Contamination

Tests shall be conducted prior to the removal of equipment, piping insulation, or painted surfaces to determine if PCB's, asbestos, or lead paint are present. If PCB's, asbestos, or lead paint are detected, encapsulation and other appropriate removal methods should be employed to ensure the substances are not released into the environment. The waste generated by these activities must be disposed at an appropriate hazardous waste disposal site in accordance with applicable federal, state and local regulations.

Mitigation Measure 4.7-2 - Contamination of SCG Lands

If contamination is discovered during decommissioning, the required actions, required permits, and involved agencies would depend on the size and location of the soil contamination. Spills that have not migrated from the property and pose no imminent danger to humans or property may simply be excavated without a permit or other agency action. When there has been a release from the property, or when spills could pose danger

to humans or property, they are reported to the Department of Toxic Substances Control (DTSC). Remedial action shall be taken with the consent of the DTSC. Contaminated soil would be transported to TPS in Adelanto for thermal de-sorption or to Kettleman Hills Landfill for disposal.

Mitigation Measure 4.7-3 - Groundwater Contamination

Groundwater plumes are reported to migrate near or into the project area and may contain contaminants from the Operating Industries Inc. (OII) Landfill. Groundwater monitoring shall be conducted in order to assure that decommissioning does not influence groundwater migration along the northern portions of the project area, see below also. If a release of contaminants from decommissioning activities impacts groundwater, then it must be reported to, and cleaned up under direction of, the LARWQCB.

Mitigation Measure 4.7-4 - Well Contamination

Wells have been known to leak and may release contaminants to surrounding formations and alluvium. Groundwater and formation monitoring shall be conducted in order to assure that decommissioning does not influence releases or past releases.

Implementation of the above measures would avoid reasonably foreseeable potentially significant impacts with respect to hazards from abandonment and salvaging activities. The above measures would also reduce the risk of release or migration of hazardous substances to less than significant levels.

Mitigation Measure 4.7-5 - Surface Contamination

SCG shall revise the emergency response section of the Hazardous Waste and Materials Management Plan. The plan shall include mitigation as a result of foreseeable contamination due to the proposed abandonment. This mitigation shall define the disposition of hazardous wastes and materials.

Mitigation Measure 4.7-6-Fire Hazards

SCG shall also update its emergency response plan with comment and approval from the City of Montebello Fire Department to address any possible fires started during decommissioning of the facility. SCG shall maintain a clear vegetative barrier from the property line (and approved by the Montebello Fire Department) during decommissioning to prevent the spread of any fires. SCG shall also provide fire extinguishers on-site and on all vehicles operating within the two fire sensitive areas during decommissioning.

Future Development

Any mitigation required as a result of soil contamination shall be implemented during decommissioning of the facility and shall be remediated before development of the land.