**DRAFT 4**
City of Goleta
**May 2004**

# BACKGROUND REPORT NUMBER 19

# Hazardous Materials

This planning background report will focus on the hazards associated with the use, storage, or manufacturing of hazardous materials in or near the City of Goleta. The information included in this report will be addressed in the City's Safety Element. As noted herein, the information presented here is assembled information available from various sources. The content of this report was prepared for the City of Goleta by RBF Consulting with edits by the City.

## HAZARDOUS MATERIALS REGULATORY SETTING

*Federal and State Hazardous Waste Management*

The U.S. Environmental Protection Agency (EPA) and the California Department of Toxic Substance Control (DTSC) have developed and continue to update lists of hazardous waste subject to regulation. Regulation of hazardous wastes is provided on both the State and Federal levels.

The State of California defines a hazardous material as a substance that is toxic, ignitable or flammable, or reactive and/or corrosive. An extremely hazardous material is defined as a substance that shows high acute or chronic toxicity, carcinogenicity, bioaccumulative properties, persistence in the environment, or is water reactive (California Code of Regulations, Title 22).

*Regional Hazardous Waste Management*

The Santa Barbara County Air Pollution Control District (APCD) works with the California Air Resources Board (CARB) and is responsible for developing and implementing rules and regulations regarding air toxics on a local level. The APCD establishes permitting requirements, inspects emission sources, and enforces measures through educational programs and/or fines.

In response to the growing Statewide concern of hazardous waste management, State Assembly Bill 2948 (Tanner 1986) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to assure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within its jurisdiction.

## SETTING

The City of Goleta has a history of urban uses, including extensive and diverse industrial, commercial, agricultural and rural lands, and residential uses. The City has a history of known contaminant releases, which includes active remediation sites, some closed sites and a number of properties that can be considered high risk for contamination based on historic/current land uses. As a result of the history of industrial and commercial development, there are several sites within the City that have the potential to have been impacted by pervious or current releases of contaminated materials.

In more recent years, since the 1980s, hazardous materials have been governed by a variety of environmental regulations that require proper storage, handling, employee and public noticing, spill contingency planning, business/environmental management plans, and other emergency response measures necessary to ensure public safety and to minimize the risk of accidental releases or environmental impacts. While it is less likely for newer uses to have involved hazardous materials releases, the potential for accidental releases, while minimized under current regulations, is inherent to industrial areas.

## HAZARDOUS MATERIALS DISCLOSURE PROGRAM

The primary concern associated with the release of a hazardous material is the short-and long-term effects that exposure to a hazardous substance may have on the public. This is particularly true when a toxic gas is involved, because a gaseous toxic plume is more difficult to contain than a soil or liquid spill, and a gas can impact a larger portion of the population in a shorter time span.

All businesses that handle more than a specified amount of hazardous materials are required by both the federal and state governments to submit a business plan to their local administering agency. The specific quantities for acutely hazardous materials vary according to the substance. In the City of Goleta, the administering agencies are the Santa Barbara County Fire Protection Services Department (PSD) and the Santa Barbara County Office of Emergency Services (OES). Both agencies require a Hazardous Materials Business Plan (HMBP), however, the PSD administers the HMBPs. HMBP is a program that requires businesses handling or storing certain amounts of hazardous materials to prepare a plan, which includes an inventory of hazardous materials stored onsite, an emergency response plan, and an employee-training program.

HMBPs should contain a description of the physical and chemical properties of the substance for each hazardous and extremely hazardous material that is handled, and the symptoms that result from contact with the substance. The plan should also have a site map that shows where each hazardous material is

stored and handled, where emergency response equipment is located, and contain evacuation plans and procedures.

There are approximately 104 businesses in the City of Goleta that have a Hazardous Materials Business Plan (HMBP)[1]. These HMBPs are on file with the Santa Barbara County Fire Department. HMBPs are required for any business that handles or stores hazardous materials. Hazardous materials are usually associated with specific industries. There are 151 sites listed with the County of Santa Barbara Fire Department as hazardous waste generators located in the City of Goleta.

Business and industrial facilities located outside the City limits also may have the potential of causing a hazardous materials release incident that could impact Goleta. Hazardous materials stored in warehouses or in refineries have the potential of being released as toxic fumes during an earthquake or fire. The areas of the City that could be impacted by toxic fumes are in part dependent upon wind direction and other climatological controls. However, because of the risk, facilities that store hazardous materials that could pose a toxic-fume threat should not be located near predominantly residential neighborhoods and/or facilities that house immobile populations (i.e., schools, child care centers, convalescent homes, etc.).

One of the best ways to reduce the impact of a hazardous materials release is through regulation governing the storage, use, and manufacture of hazardous materials. Several regulations have been implemented to address the issue of hazardous substances; individual cities have the right to develop more stringent requirements than those established by the State.

## HAZARDOUS MATERIALS TRANSPORT

In addition to stationary land uses that have the potential to involve hazardous materials release, major transportation corridors are also a potential source of accidental releases or environmental incidents that could affect various areas of the City. Transportation of hazardous materials in the City of Goleta would occur along U.S. Highway 101 (HWY 101), State Route 217 (SR-217), Hollister Avenue, and the Southern Pacific Railroad (SPRR) tracks. Highway 101 traverses the entire east-west length of the City of Goleta. Hollister Avenue and Cathedral Oaks Road run parallel to HWY 101. State Route 217 extends on a northeast to southwest diagonal between HWY 101 and the University of California at Santa Barbara's campus. The California Highway Patrol (CHP) and Caltrans enforce federal and state regulations and respond to hazardous materials transportation emergencies.

[1] County of Santa Barbara Fire Department, December 9, 2003.

## HAZARDOUS MATERIALS INCIDENCE RESPONSE

Releases of hazardous materials may occur during a natural disaster, such as during an earthquake; improperly stored containers of hazardous substances may overturn or break, pipelines may rupture, and storage tanks may fail. Hazardous materials are also increasingly becoming considered to be potential targets for terrorism or sabotage. Containers may also explode if subject to high temperatures, such as those generated by a fire. If two or more chemicals, which are reactive when combined, make contact as a result of a spill, the hazard may be compounded. The 1996 Uniform Fire Code includes criteria designed to minimize the risk of an accident.

*Santa Barbara County Fire Protection Service Division (PSD)*

The Santa Barbara County Fire Protection Services Division (PSD) and Regional Water Quality Control Board (RWQCB) are the local enforcement agencies for the regulation of hazardous waste/materials. The Air Pollution Control District (APCD) also oversees regulation of airborne hazardous materials/waste issues.

The PSD is also responsible for administering the state's Leaking Underground Fuel Tank (LUFT) program. The purpose of the LUFT program is to oversee the proper assessment and remediation of contaminants released from underground storage tanks.

The PSD also administers the "Hazardous Materials Business Plan" (HMBP) program which requires businesses handling or storing certain amounts of hazardous materials to prepare a plan, which includes an inventory of hazardous materials stored onsite (above specific quantities), an emergency response plan, and an employee training program. Plans must be prepared prior to facility operation and are reviewed/updated biennially (of within 30 days of a change). Businesses that use, store, or handle 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas at standard temperature and pressure require HMBPs.

Businesses using "acutely hazardous materials" (AHM) must submit a Risk Management and Prevention Program (RMPP) detailing past AHM accidents, AHM equipment condition, maintenance and monitoring, and controls to minimize the risk of accident.

Hazardous waste producing businesses must obtain a Santa Barbara County Hazardous Waste Generator Permit and comply with State regulations. Permit applications must be made 30 days prior to beginning operation of a business that will generate hazardous wastes. The permit must be renewed annually.

The PSD also regulates and enforces State underground storage tank installation and monitoring requirements, including permitting and inspecting. The State

Water Resources Control Board (SWRCB), the State Department of Toxic Substances Control (DTSC), and PSD (soil and groundwater) enforce state site remediation regulations for groundwater contamination. Sites involving groundwater contamination are usually overseen by the Regional Water Quality Control Board. In addition to the LUFT program, Santa Barbara County has a similar program, the Site Mitigation Unit (SMU), to address all other releases that do not fall under the auspices of LUFT. Guidelines for assessment/remediation in SMUs are very similar, if not the same, as with LUFTs.

*State Departments*

The transportation of hazardous materials/wastes is regulated by California Code of Regulations, Title 26. The California Highway Patrol (CHP) and Caltrans enforce federal and state regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between federal, state, and local governmental authorities and private persons through a state mandated Emergency Response Plan.

*Federal Departments*

Airborne hazardous pollutants, such as asbestos fibers, are regulated by the Air Pollution Control District through federal and local legislation. Construction activities, which would disturb asbestos and release asbestos fibers, must be reported to the EPA.

## HAZARDOUS WASTE

Hazardous waste pertains to products that contain chemicals that are flammable, corrosive or poisonous. Examples of hazardous waste generated by businesses include aerosols, asbestos, batteries, fluorescent bulbs, mercury, motor oil and paint.

State and federal hazardous waste laws limit the use of hazardous waste collection facilities to businesses that qualify as a Conditionally Exempt Small Quantity Generator (CESQG). To qualify as a CESQG, a generator must not produce more than 100 kilograms (27 gallons or 220 pounds) of hazardous waste per month, including a maximum of 1 kilogram (1 quart or 2.2 pounds) of acutely hazardous waste. Businesses or individuals who generate more than this amount are required to use a licensed hazardous waste hauler to manifest and transport their waste.

Household Hazardous Wastes are materials commonly used in and around residential households that contain toxic substances. These include household cleaning products (drain cleaners, oven cleaners, floor and furniture polish); painting products (paints, stains, finishing products and thinners); automotive

products (motor oil, old gasoline, anti-freeze, car batteries, transmission, brake and steering fluids, solvents); garden products (fertilizers, pesticides, herbicides); hobby supplies (solvents, photochemicals); and pool supplies (Chlorine).

City of Goleta residents and businesses that qualify as a CESQG can dispose of hazardous waste items at the Community Hazardous Waste Collection Center located at University of California Santa Barbara (UCSB). The collection center is a joint project of the County of Santa Barbara Public Works Department, the Community Environmental Council (CEC) and UCSB.

Additionally, the County's Solid Waste Division obtains and administers state grants to assist residents in the proper disposal of used motor oil and oil filters. Certified Collection Centers throughout the County offer free collection services to residents.

## CRUDE OIL AND PETROLEUM PRODUCT PIPELINES

Owned by Venoco, the Ellwood Oil & Gas Processing Facility is located on 4.46 acres in the City of Goleta. The plant treats crude oil produced from Platform Holly, located approximately 2.5 miles offshore. The Processing Facility consists of the capability to separate oil and water, treat oil (hydrogen sulfide reduction), treat and discharge produced water, and the treatment of raw gas. The untreated crude and gas streams contain hydrogen sulfide ($H_2S$), a condition referred to as "sour". Seep gas from the offshore field is also collected and pipelined to the plant. According to the Quantitative Risk Assessment (QRA) (2000), the Ellwood Facility processes about 5,000 barrels per day of crude oil, 5 million standard cubic feet per day (SCFD) of gas and 15,000 gallons per day of natural gas liquids (NGL) and mixed liquefied petroleum gas (LPG).

The Ellwood Marine Terminal is located on 17 acres of property leased from the University of California Santa Barbara. The Marine Terminal has the capacity for onshore storage and pumping and has an offshore mooring terminal. In addition, the Marine Terminal transports the outputs. The pipeline system consists of a 10-inch diameter, then a 6-inch diameter oil pipeline from the Ellwood Onshore Facility to the Ellwood Marine Terminal. The pipeline length is 3.7 miles. The second line consists of a 12-inch, then 10-inch, diameter pipeline from the onshore transfer pumps at the Ellwood Marine Terminal to the offshore loading connection.

The principal hazardous effects of land uses located near the plant would be from toxicity of $H_2S$, fires from different hydrocarbon streams released under different scenarios and explosions form vapor clouds or boiling liquid expanding vapor explosions (BLEVEs). $H_2S$ is a toxic material with the potential to cause human fatalities given sufficient exposure duration and concentration. Fires include pool, jet and vapor cloud fires in addition to BLEVEs and fireballs. Pool

fires result from flammable liquid hydrocarbon releases (i.e., crude oil) that form a pool that is subsequently ignited. Jet fires result from ignition of a continuous release of pressurized flammable hydrocarbon gas (i.e., a NGL leak from piping). Both pool and jet fires are continuous sources of thermal radiation until the fuel is exhausted. Short-term vapor cloud fires result from delayed ignition of the flammable portion of vapor clouds dispersing following a hydrocarbon release. BLEVEs result from external fires causing a vessel containing volatile materials (i.e., LPG bullet) to rupture, which subsequently creates an ignited fireball and/or explosive overpressures, producing short-term thermal radiation. Fireballs can also result from ignition of any instantaneous release of pressurized hydrocarbons. Finally, delayed ignition of flammable vapor clouds may also produce an explosion, resulting in blast overpressures.

*Quantitative Risk Assessment (QRA) for Venoco's Platform Holly and Ellwood Facility*

The Santa Barbara County Fire Department required the Venoco Coproration to complete a quantitative risk assessment (QRA) for Platform Holly and the Ellwood Facility. The scope of the QRA was to evaluate the acute risk (i.e., fatalities or serious injuries) to the public associated with accidental gaseous releases from Platform Holly and the Ellwood Facility and to develop, if needed, measures that could reduce the level of public risk. Additionally, the scope included an analysis of the frequency of odorous releases from Platform Holly and the Ellwood Facility and to develop, if needed, measures that could reduce the frequency of odorous events. The facilities were evaluated based on the facilities that the County of Santa Barbara permitted in the early 1980s, even though some of these facilities are currently not in operation.

The County has established risk thresholds to determine the significance of a particular environmental effect. The County focuses on quantifying societal risk. Societal risk, illustrated as a risk spectrum, expresses a continuous variation in risk as a relationship of probability and consequence, the latter measuring the number of estimated fatalities and serious injuries.

The thresholds illustrated in Exhibit 1, *Santa Barbara Fatality Risk Thresholds* and Exhibit 2, *Santa Barbara Injury Risk Thresholds*, require quantitative risk analysis to determine the total societal risk attributable to the full set of possible accidents that can occur from the operation of a hazardous facility or undertaking of an activity that involves handling of hazardous materials. The thresholds provide three zones; green, amber and red for guiding the determination of significance or insignificance based on the estimated probability and consequence of an accident.

Impacts are categorized as follows:

Class I Impact. Class I applies to adverse impacts that the County considers to be unavoidable and significant. Regarding public safety, the County considers a societal risk spectrum that falls in the red or amber zones after application of all feasible mitigation to be an unavoidable significant impact on public safety.

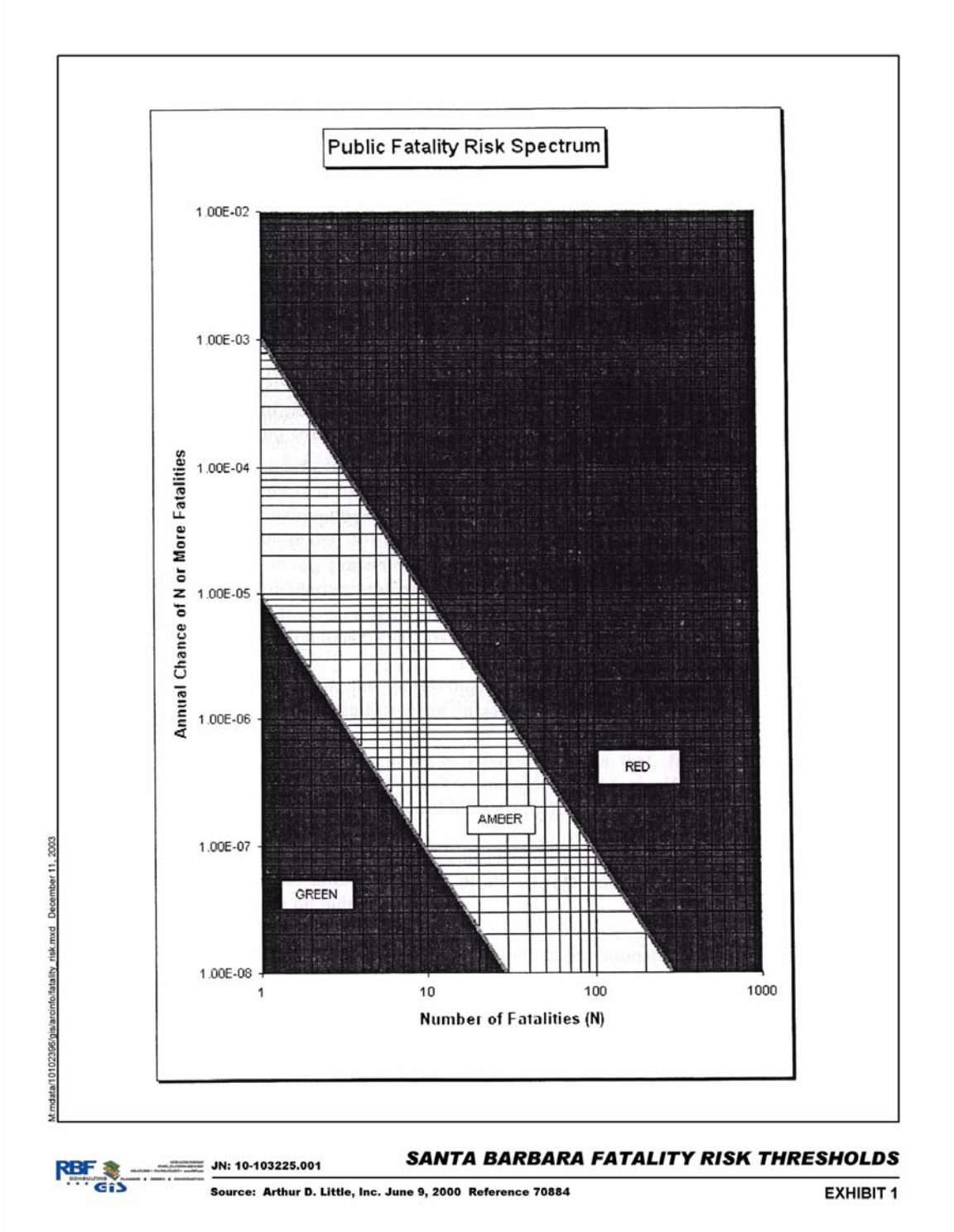
Class II Impact. Class II applies to adverse impacts that the County considers to be significant but avoidable through application of feasible mitigation. Regarding public safety, the County considers a societal risk spectrum that falls in either the red or amber zones to be a significant impact to public safety.

Class II Impact. Class III applies to adverse impacts that the County considers to be insignificant. Regarding public safety, the County considers a societal risk spectrum that falls completely in the green zone to be an insignificant impact to public safety.

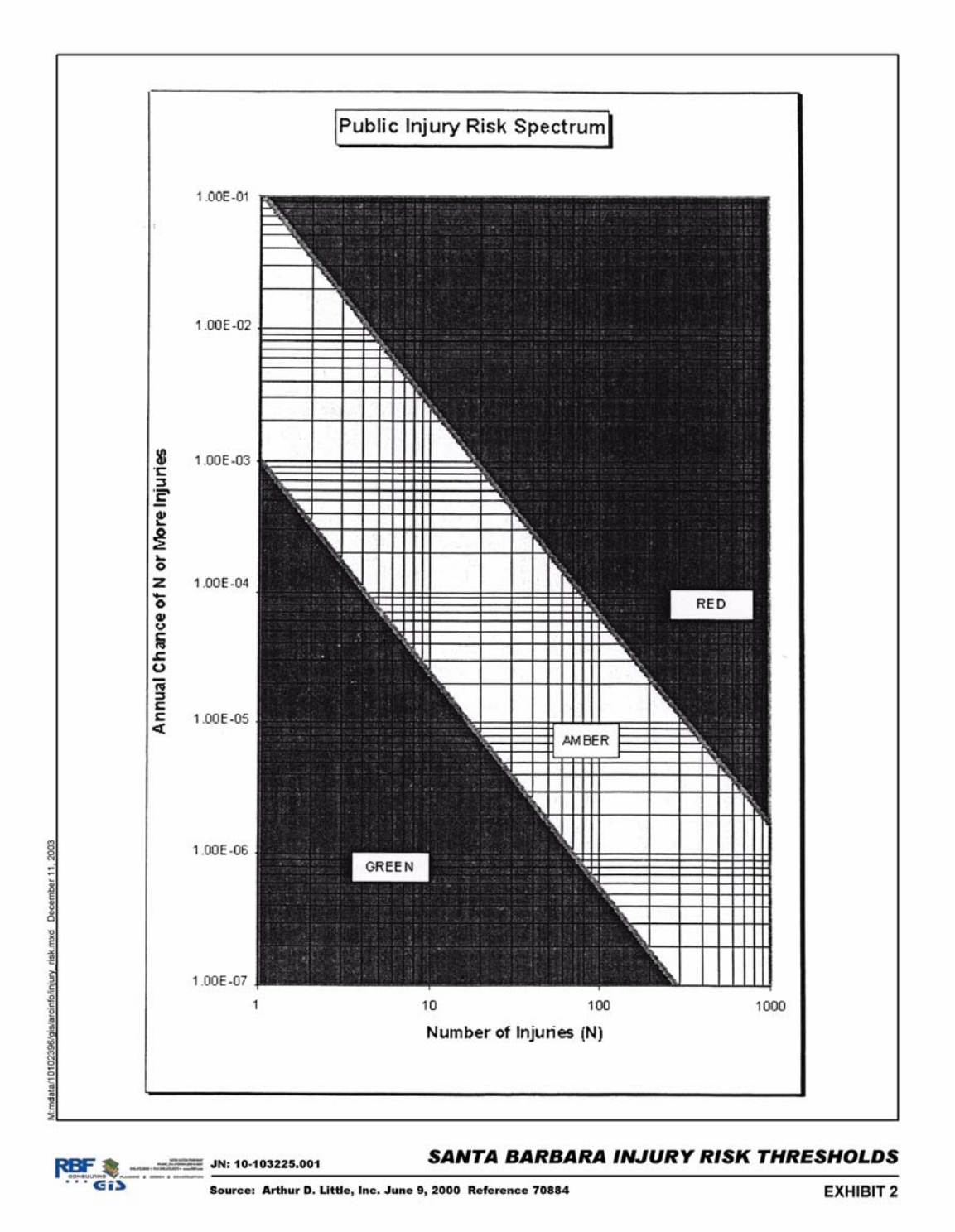
The main risk to the population from the Ellwood Facility is due to the separation and storage of liquefied petroleum gas (LPG) and natural gas liquids (NGL). These gas liquids produce large flame jets or BLEVEs (boiling liquid expanding vapor explosions) if released and can affect a large area. This, combined with the relatively high populations close to the facility (an estimated 2,800 people could be within 3,000 feet of the Ellwood Facility after a planned development is concluded with the closest residence being 1,200 feet from the Ellwood Facility) produces levels of risk that the County would classify as “unacceptable”. The risk of fatality due to $H_2S$ releases (i.e., toxic) from the Ellwood Facility is not a major driver in the overall risk. The toxic risk from the facility would be considered acceptable based upon the County’s Environmental Thresholds for Public Safety.

A number of risk reducing measures were developed to reduce the overall risk from the Ellwood Facility. The measures included items such as fireproofing the LPG and NGL tanks to reduce the rate of vessel failures due to fire impingement and the installation of remotely operated flow valves and flow orifices to reduce flows in the event of an equipment leak or rupture. The risk reducing measures identified in the QRA, if implemented, would serve to substantially reduce the level of risk associated with the Ellwood Facility. With the implementation of these measures, the public risk from the Ellwood Facility may not be considered unacceptable based upon the County’s Environmental Thresholds for Public Safety.

Insert Exhibit 1
*Santa Barbara Fatality Risk Thresholds*



Insert Exhibit 2
Santa Barbara Injury Risk Thresholds



Platform Holly does not store large quantities of flammable gas liquids and therefore has smaller hazard zones than the Ellwood Facility. This, combined with the low populations around Platform Holly (boats only), produces an acceptable level of risk. None of the serious injury or fatality hazard zones associated with Platform Holly extend onshore.

Odor releases (a release of gas that could produce an offsite odor) were estimated by examining the number of components at each facility combined with an estimated frequency of failures that could produce an odor release. In addition, releases from pressure relief valves that vent to the atmosphere were included based on the analysis in the hazards and operability studies (HAZOPs) and on maintenance procedures. It was estimated that an odor release could occur about five times per year from the Ellwood Facility. These are due mostly to the LOCAT (sulfur removal system) unit maintenance activities; vacuum truck operations and sump pump seals and associated sump maintenance. Mitigation measures for controlling odor release from the Ellwood Facility were developed, which included better maintenance procedures for the LOCAT sulfur areas and purging vessels and upgrading of the sump equipment including pump seals. With mitigation, the odor frequency is reduced to about one odor release every 1.3 years from the Ellwood Facility.

For Platform Holly, the odor release frequency is estimated to be once every 4.6 years. It should be noted that this analysis includes the installation of the flare system (May 1999). Since the installation of a flare system, causes of previous odor releases have been reduced substantially and no complaints have been associated with Platform Holly operation since that time. Releases to the atmosphere through the reboiler pressure relief devise (a low pressure relief that vents directly to the atmosphere) could be mitigated by installation of a low-pressure flare system. This could reduce the frequency of an odor release from Platform Holly to once every six years.

## ELECTROMAGNETIC FIELDS

Electromagnetic fields (EMF) are composed of both electric fields and magnetic fields. Electric and magnetic fields are invisible lines of force that surround any electrical device. Both types of fields occur in nature and in all living things. Electric fields are produced by voltage and increase in strength as the voltage increases. The electric field strength is measured in units of volts per meter (V/m). Magnetic fields result from the flow of current through wires or electrical devices and increase in strength as the current increases. Magnetic fields are measured in units of gauss (G) or tesla (T). Most electrical equipment has to be turned on, i.e., current must be flowing, for a magnetic field to be produced. Electric fields, however, are present even when the equipment is switched off, as long as it remains connected to the source of electric power.

Electric fields are shielded or weakened by materials that conduct electricity (including trees, buildings and human skin). Magnetic fields pass through most materials and are therefore more difficult to shield. Both electric and magnetic fields decrease as the distance from the source increases.

Power transmission and distribution lines are commonly associated with EMF, but household wiring, lighting and appliances also produce EMF. Frequencies generated by man-made mechanisms, measured in hertz (Hz), range from extremely low frequency (ELF) (60 Hz) associated with power transmission and electrical appliances, to $3 \times 10^{10}$ Hz associated with microwaves. Considerable controversy remains over the health effects of EMF, particularly ELF. Many studies show there is no link between electromagnetic fields and adverse health effects. However, a considerable body of observations has documented bio-effects of fields at the 1.0 milliguass level across the gamut from isolated cells, to animals and in humans. Epidemiological evidence points to human health hazards in exposures to ambient power frequency magnetic field environments exceeding 2.0 milliguass.

Located between Hollister Avenue and the Union Pacific Railroad, west of Ellwood School, the Reliant Peaking Facility is not a regular electrical substation, but generates electrical power for the Goleta Valley during emergencies and peak electrical use periods. Reliant Energy reserves the right to use the substation on a more continuous basis. Under normal energy demand conditions, it is not in use. The facility consists of two natural gas turbines capable of supplying 54 megawatts of electrical energy. When operating, the facility emits combustion products (nitrogen oxides, sulfur oxides, carbon monoxide and reactive organic compounds).

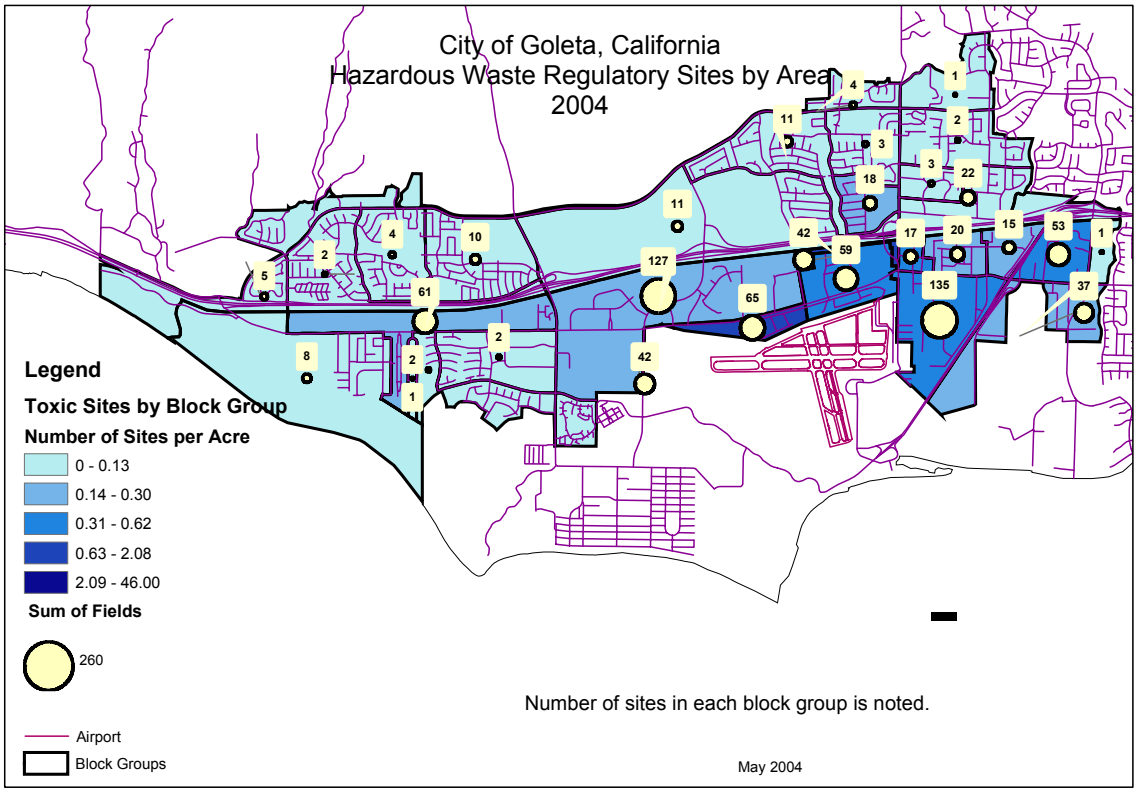
Southern California Edison (SCE) provides electricity service to the City of Goleta. Three substations serve the City: Hollister Avenue (35 Megawatt capacity), Isla Vista (12 Megawatt capacity) and the Camino Contigo substation (36 Megawatt capacity).

## REGULATORY INFORMATION

Governmental sources and databases have been searched by Environmental Data Resources (EDR) for listed regulatory sites within the City of Goleta. EDR provided the results of the research in a report dated October 2, 2003. RBF Consulting (RBF) makes no claims as to the completeness or accuracy of the referenced sources in the EDR report. RBF's review of EDR's findings may not represent all known or potential hazardous waste or contaminated sites. To reduce the potential for omitting possible hazardous material sites within the City, sites may be listed in this report if there is any doubt as to the location because of discrepancies in map location, zip code, address, or other information. Exhibit 3, *Regulatory Sites*, illustrates the location of these sites. Exhibit 3

includes areas on the northern part of the Santa Barabara Airport property adjacent to the City of Goleta.

Insert Exhibit 3
Regulatory Sites




The 1988 Federal Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS) list of potentially hazardous waste sites included one site within the City that was investigated by the Federal EPA. The CERCLIS inventory lists sites that have been identified as having a potential for releasing hazardous substances into the environment. According to information provided by EDR, there are no Federal National Priorities List (NPL) sites within the City. However, there is one hazardous waste site, Gibraltar Mining located at 6144 Calle Real within the City of Goleta (EDR Map ID #28), which is currently being reviewed/assessed for possible inclusion on the NPL.

## UNDERGROUND STORAGE TANKS

The EDR report indicated that there are 25 underground storage tanks (UST), 78 leaking underground storage tanks, and 88 historical underground storage tanks.

According to the Goleta Community Plan, 18 of these sites are leaking underground fuel tanks (LUFT), often associated with gas stations.

## CLOSED AND INACTIVE LANDFILLS

The County currently has one active solid waste landfill in the vicinity of the city, the Tajiguas Landfill. This landfill accepts Municipal Solid Waste, Clean Construction and Demolition Debris Loads, Hard to Handle Waste (i.e. large demolition material, large animals, and non-friable asbestos and grit), Dirt Loads, Cathode Ray Tubes (CRTs e.g. computer monitors and televisions), and Electronic Waste (non-CRTs e.g. audio, visual, office equipment). The landfill does not accept hazardous materials. These materials must be taken to alternative sites for disposal as specified by the County of Santa Barbara's Public Works Department. City of Goleta residents and businesses that qualify can dispose of hazardous waste items at the Community Hazardous Waste Collection Center, located at University of California Santa Barbara. Additionally, as of September 1, 2003, the County of Santa Barbara initiated a Mandatory Commercial Recycling Program for all businesses and multi-family dwellings in the unincorporated areas of Santa Barbara County. This Program was initiated to increase the amount of diverted (i.e. reused, recycled) waste in the County.

## OIL AND GAS WELL INVENTORY

For the purposes of this report, an oil well is defined as a hole drilled from the surface into the earth for prospecting for, or production of oil, natural gas, or other hydrocarbon substances. This definition also encompasses a well or a hole used for the subsurface injection into the earth of oil field waste, gases, water, or liquid substances, including any well or hole which has not been abandoned and is now in existence. The depth of an oil or gas well can range from a few hundred feet below ground surface (bgs) to more than 20,000 bgs.

Existing oil and gas operations in the Goleta Area include the Venoco/Ellwood oil and gas separation and treatment plant, the Ellwood Marine Terminal and the ARCO/Bishop processing facility.

The Division of Oils, Gas and Geothermal Resources (DOGGR) oversees the drilling, operation, maintenance and plugging and abandonment of oil, natural gas and geothermal resources in California. Records of all work done on wells, from installment to abandonment are maintained at the DOGGR. The County of Santa Barbara Energy Division oversees oil and gas activities in the Santa Barbara Channel and the Santa Maria Offshore Basin. Hydrocarbon and petrochemical contaminants are likely to be associated with past drilling activities, especially drilling that occurred during the first part of the century when

people were unaware of hazards of petroleum fuels. Contamination could occur from old wells, tanks, flowlines, or sumps.

*City of Goleta*

Portions of the City of Goleta are located within the boundaries of the Elwood, Glen Annie, and La Goleta Fields Oil and Gas Fields. Within these fields there are approximately 141 wells. Approximately 129 of these wells have been plugged and/or abandoned, seven have been complete and one remains idle. Additionally, there are approximately two wells that are currently used for drilling.

## PLANNING IMPLICATIONS FOR THE CITY OF GOLETA

A number of issues can be considered in the subsequent General Plan work efforts, including: 1) public safety related to hazardous materials; 2) public safety related to oil fields and lines; and 3) land use implications of hazardous sites.

### Public Safety Related to Hazardous Materials

There are a number of locations within the City that have been identified as handling, storing or transporting hazardous materials. The general plan should consider appropriate safety measures at the city, county, state and federal levels to protect the public from accidents involving the handling, use and transportation of hazardous materials.

### Public Safety Related to Oil Fields and Lines

The Ellwood Oil and Gas Process Facility is capable of causing fatalities or serious injuries to the public. The general plan should consider appropriate safety measures to protect the public from accidents associated with the facility and pipelines. The City should consider the facility's location in land use planning decisions.

### Land Use Implications of Hazardous Sites

There are a number of sites in Goleta with contaminated soils and/or groundwater, which have not yet received a closure status from the appropriate lead agency. These sites include, but are not limited to Santa Barbara Municipal Transit, McCormix Corporation, United Parcel Service, Inc., World Oil Co., Avis Rent a Car, Toyota of Santa Barbara, etc.; such sites should be remediated.

## REFERENCE MATERIALS


County of Santa Barbara Household Hazardous Wastes, http://www.lessismore.org

County of Santa Barbara Fire Department.

County of Santa Barbara Planning and Development, Energy Division, http://www.countyofsb.org/energy/.htm

County of Santa Barbara Solid Waste and Utilities, http://www.countyofsb.org/pwd/swud.htm

Department of Conservation, Division of Oil, Gas, and Geothermal Resources, http://www.consrv.ca.gov/dog/index/htm.

Goleta Community Plan, prepared by the County of Santa Barbara Resource Management Department, August 1993.

Goleta Community Plan Final Environmental Impact Report, prepared by the County of Santa Barbara, August 1992.

Goleta Old Town Revitalization Plan, Proposed Final Environmental Impact Report, prepared by the County of Santa Barbara Planning & Development, Comprehensive Planning Division, June 1997.

Goleta Old Town Revitalization Plan, Proposed Final Environmental Impact Report, prepared by the County of Santa Barbara Planning & Development, Comprehensive Planning Division, June 1998.

Phase I Environmental Site, Assessment Goleta Old Town Brownfields, Goleta, Santa Barbara County, California, prepared by Padre Associates, Inc., February 2003.

Phase I and II Environmental Site Assessments, Santa Barbara Municipal airport Properties, Santa Barbara, California, prepared by Rincon Consultants, Inc., August 11, 1997.

Phase II Environmental Site Assessment Goleta Old Town Brownfields Project, Goleta, California, prepared by Padre Associates, Inc., November 2000.

Quantitative Risk Assessment (QRA) for Venoco's Platform Holly and Ellwood Facility, prepared by Arthur D. Little, Inc., June 9, 2000.

The Goleta Valley Outlook, prepared by the Santa Barbara County Planning & Development, May 1998.

University of California Santa Barbara, 1978 Santa Barbara Earthquake, http://www.crustal.ucsb.edu

## LIST OF ABBREVIATIONS

| | |
|---|---|
| AHM | Acutely Hazardous Materials |
| APCD | Santa Barbara County Air Pollution Control District |
| CCR | California Code of Regulations |
| CERCLIS | Federal Comprehensive Environmental Response, Compensation and Liability Act Information System |
| CHP | California Highway Patrol |
| DTSC | State of California Department of Toxic Substances Control |
| EDR | Environmental Data Resources |
| EPA | United States Environmental Protection Agency |
| HMBP | Hazardous Materials Business Plan |
| LUFT | Leaking Underground Fuel Tank |
| NPL | National Priorities List |
| OES | Santa Barbara County Office of Emergency Services |
| PSD | Santa Barbara County Fire Protection Services Department |
| RMPP | Risk Management and Prevention Program |
| RWQCB | Regional Water Quality Control Board |
| SMU | Site Mitigation Unit |
| SWRCB | State of California Water Resources Control Board |
| UST | Underground Storage Tanks |