
Hazards and Hazardous Materials

This chapter of the EIR evaluates the potential impacts of Project-related hazardous materials and other hazards of CEQA concern. This chapter describes past on-site and nearby off-site storage and release of hazardous materials (including the presence and former presence of underground storage tanks), potential generation and discovery of hazardous materials and waste during Project construction activities, use of hazardous materials at the Project area, and potential future generation and disposal of hazardous materials and/or hazardous wastes. The chapter also describes the environmental and regulatory setting that is applicable to health and safety regarding hazards and hazardous materials. Potential impacts are discussed and evaluated, and appropriate mitigation measures are identified, as necessary.

Setting information is derived from the following primary sources:

- Environmental Data Resources, Inc. (EDR) was contracted to provide an electronic search of databases maintained by various federal and State regulatory agencies, containing records of environmental permits, records of properties generating, handling or storing hazardous materials, records of properties impacted by regulated compounds, and records of properties under investigation by the government for alleged violations of hazardous material regulations. The EDR Database Search Report is included in **Appendix 11A**.
- Historical topographic maps, Sanborn Maps, and historic aerial photographs were also reviewed during this study (including the review of this same information as presented in the prior 2007 MEIR), in an attempt to identify past site and vicinity property uses that may indicate a possible recognized environmental condition.
- Hazardous materials files and documents available from state, regional and local agencies were reviewed via the California Department of Toxic Substances Control (DTSC) EnviroStor website, and the California Regional Water Resources Control Board (SWRCB), San Francisco Bay Area Region GeoTracker website.
- Relevant information regarding hazardous materials use and disposal as contained in the prior 2007 MEIR and the 2012 SMEIR.

This chapter does not include information obtained by any interviews with previous or current property owners or occupants, does not include a site reconnaissance visit for individual sites within the Project area and does not include a City Directory Report or an Environmental Lien Search.

Definition of Hazardous Materials and Waste

A hazardous material is defined as “any material that, because of quantity, concentration or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment, if released into the workplace or the environment.”¹ The term “hazardous materials” refers to both hazardous substances and hazardous wastes. By convention, most hazardous materials are thought to

¹ State of California Health and Safety Code, Chapter 6.95, Section 25501(o)

be hazardous chemicals, but certain radioactive and biohazardous materials are also considered hazardous. Under federal and state laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such, or if it is toxic, ignitable, corrosive, or reactive, radioactive or bioactive. By statutory definition, biohazardous materials include biohazardous laboratory wastes and biologic specimens such as human or animal tissue (as defined by Section 117635 of the California Health and Safety Code).

Historical industrial or commercial activities on a site may have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. Hazardous materials may also be present in building materials, which can be released during building demolition activities. If improperly handled, hazardous materials and wastes can cause public health hazards when released to the soil, groundwater or air. The four basic exposure pathways through which an individual can be exposed to a hazardous material include inhalation, ingestion, bodily contact and injection. Exposure can occur from an accidental release of hazardous materials during transportation, storage or handling. Disturbance of contaminated soils during construction can also cause exposures to workers, the public or the environment through stockpiling, handling or transportation of soils.

A hazardous waste, for the purpose of this EIR, is any hazardous material that is abandoned, discarded or recycled, as defined in the State of California Health and Safety Code (Chapter 6.95, Section 25125). In addition, hazardous wastes may be generated by actions that change the composition of previously non-hazardous materials.

The transportation, use and disposal of hazardous materials, as well as the potential releases of hazardous waste to the environment, are closely regulated through many state and federal laws, as further described in the Regulatory Setting of this chapter.

Environmental Setting

This section describes the environmental setting that is applicable to health and safety regarding hazards and hazardous materials associated with the Project area.

Genentech's Use of and Disposal of Hazardous Materials

Genentech engages in the research, development, manufacture and marketing of biotechnology products for serious or life-threatening diseases including commercialization of those products. Research at Genentech focuses primarily on three areas of medicine: oncology, immunology, and tissue growth and repair.

Hazardous materials used by Genentech principally relate to research, development and manufacturing of biotechnology products, and could include the following:

- Solvents used for cleaning, extraction, or other laboratory and production activities
- Reagents (chemical starting materials)
- Chemical reaction products, which may have unknown compositions
- Radioisotopes (radioactive elements used to stimulate or trace chemical reactions)
- Infectious agents, including bacteria, viruses and other medical wastes
- Test samples (e.g., specimens such as blood, tissue, soil or water), prior to use in a testing procedure
- Waste water neutralization chemicals
- Chemicals used to clean process equipment

Genentech manufacturing processes use recombinant DNA (rDNA) technology to grow medicinal proteins from cells. Depending on the size and complexity of the protein, the manufacturing process uses biological

materials. Because of the low environmental and health risk associated with manufacturing proteins with biological materials, there are no regulatory requirements to manage biological wastes from the manufacturing process in a particular manner. Waste effluents containing biological materials at Genentech facilities are currently inactivated through either heat or chemical processes.

Genentech's small molecule and antibody conjugation research and development activities (which are common in the biopharma sector), frequently involve newly developed chemicals for which there is limited research and data regarding hazardous properties and effects. Genentech takes a conservative approach by managing these substances as toxic, even if they have not been proven toxic. Genentech incorporates specific containment and ventilation design features into laboratories intended for small molecule or antibody conjugate research, and provides appropriate personal protective equipment for lab workers in these areas.

Maintenance of the Genentech Campus, as well as future construction activities, also requires the use of hazardous materials. Examples of hazardous materials typically used for vehicle, grounds and building maintenance, or used on construction sites include:

- Fuels (gasoline and diesel)
- Oils and lubricants
- Antifreeze
- Cleaners, which may include solvents and corrosives in addition to soaps and detergents
- Paints and paint thinners (latex)
- Refrigerants
- Pesticides and herbicides

The following describes those hazardous materials used at the Project area in three broad categories: general chemicals, radioactive materials and biohazardous materials.

General Chemicals

Many chemical materials, some hazardous, are used for research and production activities, as well as facilities maintenance during the course of daily operations at Genentech. Virtually all of the buildings on the Genentech Campus contain commercial products (e.g., cleaners, copier toners, etc.) that could be considered "hazardous materials" under regulatory definitions. Non-household-type hazardous materials used in research laboratories include chemical re-agents and solvents.

Process equipment may be cleaned using chemicals such as potassium hydroxide and phosphoric acid. On-site wastewater neutralization systems may use sulfuric acid and sodium hydroxide. Diesel fuel is used across the Genentech Campus for emergency power generators. For certain product lines, Genentech uses tetra methyl ammonium chloride (TMAC) in the medicinal protein extraction process. Some forms of TMAC waste streams are considered to be hazardous in California, but not by other jurisdictions. Genentech also uses alcohol-based solvent products, primarily in analytical research equipment and for cleaning purposes. These products include alcohol wipes solution (70 percent alcohol/30 percent water) and reagent alcohol. The solvent types represented are ethanol, methanol and isopropanol.

Maintenance units, including grounds, custodian services, and pest management use a wide variety of commercial products formulated with hazardous materials. These include fuels, cleaners and degreasers, solvents, paints, lubricants, pesticides and herbicides, adhesives, and sealers.

Radioactive Materials

Radioactive substances contain atoms that spontaneously emit radiation from the transformation of unstable atomic nuclei, which result in chemically different substances that may or may not be radioactive.

Radioactive atoms are called “radionuclides” or “radioisotopes”. Because radioactive materials emit ionizing radiation, their presence can be detected easily. Researchers and healthcare professionals take advantage of this easy detectability by using radioactive materials to study various biochemical functions in animals and humans. Radiopharmaceuticals (radioisotopes or drugs containing radioisotopes) are also used in medicine and research. Limited types and quantities of radioisotopes are also used in research laboratories. All radioisotopes used on the Project site are stored in sealed containers designed to prevent release of radioactive materials to the environment.

Exposure to ionizing radiation can result in adverse human health effects that range from short-term mild symptoms (such as sunburn) to serious illness or death, depending upon the amount and concentration of the radioactive source and the duration of the exposure. The extent to which exposure would result in any adverse effects depends on the radioisotope and the amount and duration of exposure.

Genentech collects, prepares and packages all radioactive waste for appropriate shipment and disposal. For wastes that contain longer-lived radionuclides, the final disposal depends on the hazard class of the low-level radioactive waste (LLRW). Genentech generates radioactive waste classified as Class A waste. Class A is waste that is usually segregated from other waste classes at the disposal site. Genentech uses a licensed radioactive waste-broker to transport all radioactive waste to licensed disposal facilities. The two primary disposal facilities used by Genentech are the Energy Solutions facility in Salt Lake City, Utah and the Pecos facility located in Richland, Washington.

Biohazardous Materials

Genentech has developed programs, practices and procedures for monitoring, routine inspection, reporting, and waste management to reduce community and worker exposure to potential hazards associated with medical wastes and biological hazards. Activities that could create biohazardous aerosols are conducted in biosafety cabinets, which filter all released air to remove biohazardous materials. Biosafety cabinets are tested annually in accordance with regulatory requirements. The Medical Waste Management Act generally permits biohazardous waste to be stored onsite for up to seven days, or, for such waste stored at temperatures below 32 degrees Fahrenheit, up to 90 days (or longer with the written approval of the enforcement agency), and requires that such waste be properly packaged and labeled. Medical waste may also be rendered noninfectious through steam sterilization. Genentech does not store biohazardous waste onsite for more than seven days, incinerates the majority of its medical waste and ensures that any remaining residues are properly transported by a medical waste transporter for disposal at appropriate disposal facilities. On those occasions when Genentech sends its medical waste to an autoclave for steam sterilization, the waste is ground up and then is similarly transported and appropriately disposed.

Disposal of Hazardous Materials Generated On-Site

The Genentech Campus is registered with the US EPA as a generator of hazardous waste. Genentech does not store (for longer than 90 days) or dispose of hazardous chemical waste on-site. In most cases, hazardous wastes are collected in appropriate, properly labeled containers and separated from incompatible wastes and materials at or near the places where it is generated. From these locations, the hazardous wastes are removed to central waste accumulation areas where they may be further segregated. Wastes are packaged and labeled properly, which includes segregating incompatible materials and placing them in appropriate sealed containers. Hazardous wastes are further segregated by type and consolidated before a licensed hauler transports them from the Genentech Campus to appropriately permitted and regulated off-site facilities for incineration, treatment, recycling or disposal.

Hazardous Materials that May be Encountered during Demolition or Construction

Based on the historical industrial use of the entire East of 101 Area, it is possible that soil and/or groundwater contaminated with petroleum hydrocarbons, metals, solvents, or other industrial materials that have not been previously discovered, could be encountered during Project construction activities. Redevelopment within the Project area could include demolition of certain existing older structures that may have been constructed with hazardous building materials. These materials include lead-based paint, asbestos and polychlorinated biphenyls (PCBs). If disturbed, they could present a potential hazard to workers or the public.

Lead-Based Paint

Prior to the U.S. Environmental Protection Agency (USEPA) ban in 1978, lead-based paint was commonly used on interior and exterior surfaces of buildings throughout the United States. Through such disturbances as sanding and scraping activities, renovation work or gradual wear and tear, old peeling paint, or paint dust particulates have been found to contaminate surface soils or cause lead dust to migrate and affect indoor air quality. Exposure to residual lead can cause severe adverse health effects, especially in children.

Asbestos

Asbestos is a naturally occurring fibrous material that was extensively used as a fireproofing and insulating agent in building construction materials before such uses were banned by the USEPA in the 1970s. Asbestos was commonly used for insulation of heating ducts as well as ceiling and floor tiles to name a few typical types of materials. Similar to lead-based paint, when contained within the building materials, asbestos fibers present no significant health risk, but once the fibers are disturbed, they become airborne and create potential exposure pathways. The fibers are very small and cannot be seen with the naked eye. Once they are inhaled, they can become lodged in the lungs potentially causing lung disease or other pulmonary complications.

PCBs

PCBs are organic oils that were formerly used primarily as insulators in many types of electrical equipment including transformers and capacitors. After PCBs were determined to be a carcinogen in the mid to late 1970s, the USEPA banned PCB use in most new equipment and began a program to phase out certain existing PCB-containing equipment. Fluorescent lighting ballasts manufactured after January 1, 1978, do not contain PCBs and are required to have a label clearly stating that PCBs are not present in the unit.

Mercury

Elemental mercury is an insoluble, liquid inorganic metal. It is commonly used in laboratory and medical equipment such as thermometers and manometers (used for measuring pressure). Other uses include electrical equipment and some water pumps. Mercury liquid evaporates very slowly if exposed to air. At certain levels of exposure, mercury vapors are toxic and can cause kidney and liver damage. It is possible that elemental mercury may be present in research laboratory sink traps, in cupboard floor spaces, or in sewer pipes, if there have been any historical accidental spills or releases prior to the adoption of more stringent environmental regulations pertaining to hazardous waste disposal. If such spills or releases had occurred, exposure could result in the event of building renovation or demolition.

Contaminated Imported Fill Material

The Project Area is located on portions of South San Francisco which were historically wetlands and marshes associated with the Bay. Fill material was used to fill in these areas and provide stable land for construction. However, older fill materials may contain previously undocumented contaminants of concern (COCs). These COCs may be related to previously conducted site operations exclusive to the land on which they were

collected, or may be indicative of issues with the fill material used. Development activities within the Project area may encounter contaminated fill material during construction activities.

Other Concerns

Other environmental concerns that may be discovered or encountered during construction activities within the Project area include undocumented contamination from leaking, unknown underground storage tanks, and naturally occurring asbestos present in serpentine rock that exists in the Project Area.

Known Hazardous Sites

Definition of “Cortese List” Properties

In California, regulatory databases listing hazardous materials sites provided by numerous federal, state and local agencies are consolidated in the “Cortese List” pursuant to Government Code Section 65962.5. The Cortese List is located on the California Environmental Protection Agency’s (Cal EPA) website and is a compilation of the following lists:

- The DTSC portion of the Hazardous Waste and Substances Sites List, available on the DTSC EnviroStor database;
- The SWRCB/RWQCB portion of List, including leaking underground storage tanks (LUSTs), underground storage tanks (UST), and Spills, Leaks, Investigations and Cleanup (SLIC) sites as listed on the SWRCB GeoTracker database;
- Solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
- “Active” Cease and Desist Order (CDO) and Cleanup and Abatement Order (CAO) sites from the SWRCB; and
- Hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, as identified by DTSC and listed on the EnviroStor database.

The databases cited above identify sites with suspected and confirmed releases of hazardous materials to the subsurface soil and/or groundwater. The reporting and status of these sites change as identification, monitoring and cleanup of hazardous sites progress. Typically, sites are “closed” once it has been demonstrated that existing site uses combined with the levels of identified contamination present no significant risk to human health or the environment. These databases are updated periodically and would need to be revisited prior to construction pursuant to the Project.

Cortese List Sites within the Project Site

Open Sites

Open or active sites are those sites where an investigation and/or remediation is currently in progress, and where the SWRCB, RWQCB and/or DTSC are still actively involved, either as lead agency or in a support capacity. The only existing “Open” site within the Project Site is the O'Brien Corporation site (SWRCB Case #SL18341761) located at 450 East Grand Avenue (South Campus) - Cleanup Program Site with cleanup status “Open – Inactive” as of February 2017.² Additional detail about this site is provided in the impact analysis regarding Cortese List Sites in the analysis below.

² The O'Brien Corporation site at 450 East Grand Avenue was also listed under DTSC Case #CAD005130455 - DTSC Site Type: HAZ WASTE – RCRA. However, that DTSC case has a status of “Closed” since 1994.

Closed Sites

Typically, sites are identified as closed once it has been demonstrated that existing site uses, combined with the levels of identified contamination, present no significant risk to human health or the environment. Sites identified as “No Further Action” or “Case Closed” indicates that DTSC or the SWRCB has determined that, after an investigation, the property does not pose a problem to public health or the environment. Closed sites and sites requiring no further action within the Project Site include the following:

- The Tornberg Enterprises site at 1776 DNA Way (SWRCB Case #T0608100552) was a LUST Cleanup Site.³ Cleanup was completed, and the case was closed as of 1992.
- The Alquest Property Corporation site at 342 Allerton Avenue (SWRCB Case #T0608100674) was a LUST Cleanup Site. Cleanup was completed, and the case was closed as of 1994.
- The Alquest Property Corporation site at 410 Allerton Avenue (SWRCB Case #T0608100015) was a LUST Cleanup Site. Cleanup was completed and the case was closed as of 1994.
- The Hasbro site at 500 Forbes Boulevard (SWRCB Case #T0608177492) was a LUST Cleanup Site. Cleanup was completed, and the case was closed in 1999.
- Genentech’s Building 8, with a designated address at 1 DNA Way (SWRCB Case #T10000001481) was a SWRCB Cleanup Program Site.⁴ Cleanup was completed, and the case was closed as of 2010.
- Genentech’s facility located at 451 DNA Way (SWRCB Case #SL0608122130) was a SWRCB Cleanup Program Site. Cleanup was completed, and the case was closed in 2003.
- The SF AAA Battery 40 Site (DTSC Case #80000705) is located in Mid-Campus had a prior military evaluation, and now has a status of “No Further Action” as of 2011.

Cortese List Sites Adjacent to the Project Area

Open Sites

The Haskins Jamie Court site (SWRCB Case #SL1821a600) located at 500 Jamie Court is a separate but related site near the on-Campus O’Brien Corporation site. The Jamie Haskins Court site is a Cleanup Program Site with a status of “Open - Site Assessment” as of January 2000, and is adjacent to the O’Brien site. According to the SWRCB case file, when the former O’Brien site was operational, discharge from that facility affected the adjacent San Bruno channel. The Haskins Jamie Court property was created in the late 1960s and early 1970s by filling in a portion of the affected channel, also using questionable fill material. In the past, owners of both sites have worked together to clean up the channel. The Haskins Jamie Court site and the O’Brien Site are considered separate sites, with separate environmental records and separate ownership responsibilities.

Other open sites near or adjacent to the Project Site include properties identified as “Inactive - Action Required” (a non-active site where, through a Preliminary Endangerment Assessment (PEA) or other evaluation, removal or remedial action or further extensive investigation is required), and “Inactive - Needs Evaluation” (a non-active site where a PEA or other evaluation is still required).

³ Leaking Underground Storage Tank (LUST) Cleanup Sites includes all Underground Storage Tank (UST) sites that have had an unauthorized release (i.e. leak or spill) of a hazardous substance, usually fuel hydrocarbons, and are being (or have been) cleaned up.

⁴ Cleanup Program Sites includes all “non-federally owned” sites that are regulated under the State Water Resources Control Board’s Site Cleanup Program. Cleanup Program Sites are varied and include, but are not limited to pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, RCRA/CERCLA cleanups, and some brownfields.

- The Stelling Property at 485 Cabot (SWRCB T0608116637) is a Cleanup Program Site with status of “Open-Remediation”, located approximately 0.5 miles west of the Project Site. This site has an on-going monitoring well program, and a Remedial Action Plan was approved for this site by the San Mateo County Groundwater Protection Program in December 2017. Progress towards remediation is expected to limit on-going plume migration “in a timely manner.”⁵
- The ARE San Francisco No. 12 site at 249 East Grand Avenue (SWRCB Case #T10000001104) is approximately 0.3 miles to the west of the Project site. The site is a Cleanup Program Site with a status of “Open-Inactive” as of May 2015. According to the 2010 Site Assessment Report for this case, an abandoned fuel pipeline was discovered and removed in 2008, but oil appears to have impacted the surrounding soils at various locations along the length of the pipeline. The primary impacts appear to be limited to the approximately 500 linear feet of the former pipeline adjacent to and including the City-owned East Grand Avenue roadway and sidewalk.⁶
- Monfredini Property located at 477 Forbes (SWRCB Case #T0608100774) is a LUST Cleanup Site with status “Open-Site Assessment” as of September 2017. Monitoring wells are in place, and as of November 2018, the SFRWQCB issued a letter to the property owners requiring submittal of a Remedial Action Workplan to remove petroleum hydrocarbon contamination, facilitate site cleanup and achieve case closure status.

Other Recorded Sites

The United Parcel Service site located at 657 Forbes Boulevard (across Forbes from the Project Site) has an underground storage tank (UST) permitted by San Mateo County Environmental Health (SWRCB Facility ID: 41-000-017735).

Closed Sites

The Envirostor and Geotracker websites list a number of additional closed sites, or site with no further action required, that are in relatively close proximity to the Project Site. Their “Closed” or “NFA” status generally indicates that the cases on these properties present no significant risk to human health or the environment under current land uses. These properties include:

- United Parcel Service (SWRCB Case #T0608100560), located at 657 Forbes, South San Francisco - LUST Cleanup Site completed - Case closed as of 2000
- Yellow Freight System (SWRCB Case #T0608100628) located at 201 Haskins, South San Francisco - LUST Cleanup Site completed - Case closed as of 2002
- Dennis X Ray Co (DTSC Case Cal000073292) located at 301 Allerton Ave., South San Francisco - DTSC Site Type “HAZ WASTE – Standardized”, Case closed as of 1999
- Cortana Corporation (SWRCB Case #T0608100172) located at 468 Littlefield, South San Francisco - LUST Cleanup Site completed - Case closed as of 1993
- Georgia Pacific (SWRCB Case #T0608100233) located at 249 East Grand Avenue, South San Francisco - LUST Cleanup Site completed - Case closed as of 1998; and Georgia Pacific (SWRCB Case #SL0608128898) also located at 249 East Grand Avenue - Cleanup Program Site completed - Case closed as of 2009

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http://geotracker.waterboards.ca.gov/view_documents?global_id=T0608116637&enforcement_id=6344065&temptable=ENFORCEMENT

⁶ http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001104

- Columbus Salami Inc. (SWRCB Case #T0608100167) located at 429 Cabot, South San Francisco - LUST Cleanup Site completed - Case closed as of 1991
- Gallo Sales Co. (SWRCB Case #T0608100228) located at 440 Forbes, South San Francisco - LUST Cleanup Site completed - Case closed as of 2012
- California Water Service Company, Reservoir #1 (SWRCB Case #T10000002807) located at Grandview Drive, South San Francisco - Cleanup Program Site completed - Case closed as of 2012
- Stelling Property (SWRCB Case #T0608116637) located at 485 Cabot, South San Francisco – LUST Cleanup completed –Case closed as of 2014

EDR Report Summary

An Environmental Data Resources records check was conducted in December of 2017 (EDR report). The report meets the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) and the ASTM Standard Practice for Environmental Site Assessments (E 1527-13). The records check was completed based on the address of 1 DNA Way, and records were obtained for the entire boundary of the Project Site, as well as properties within the surrounding area within a one-half mile of the Project Site boundary (see **Figure 11-1**). The various record types that apply to the Project and/or its surroundings are briefly described below.

Federal Lists

No mapped sites were found in the EDR search of available ("reasonably ascertainable") government records either on the Project Site or within the search radius around the Project Site for listings on the Federal National Priorities List, the Proposed National Priority List sites or the Federal Superfund Liens sites.

The Resource Conservation and Recovery Act Corrective Action Activity list (RCRA CORRACT) is a list of nationally defined corrective action events that have occurred for every handler of hazardous material or hazardous waste that has had corrective action activity. The O'Brien site within the Project Site is included on this list. The RCRA Large Quantity Generators (LQGs) list includes those sites that generate, transport, store, treat and/or dispose of large quantities of hazardous waste. LQGs generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. The RCRA Small Quantity Generators (SQGs) list includes those sites that generate, transport, store, treat and/or dispose of small quantities of hazardous waste. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

The federal Emergency Response Notification System (ERNS) list includes those sites as reported by the US EPA as having a reported release of oil or hazardous substance.

State Lists

The California Response list (CA RESPONSE) identifies those sites with a confirmed release of hazardous substances, and where DTSC is or has been involved in remediation (either in a lead or oversight capacity). These confirmed release sites are generally high-priority and high potential risk. A review of the CA RESPONSE list as provided by EDR reveals that there are no such sites on or in the immediate vicinity of the Project Site, but that there are three such sites within approximately 1 mile of the Project Site.

The California Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program manages DTSC's EnviroStor database list (ENVIROSTOR). This list identifies sites that have known contamination, or sites for which there may be reasons to investigate further. The database includes sites also listed as National Priorities List, State Response, Voluntary Cleanup and School sites. EnviroStor site information generally identifies formerly contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites. One property (the O'Brien Corporation site as described above under "Cortese List" properties) is within the Project Site and included on this list.

The SWRCB maintains a data management system for sites that impact or have the potential to impact water quality (Geotracker), with an emphasis on groundwater. The Geotracker database includes Leaking Underground Storage Tank (CA LUST) sites and Cleanup Program Sites (formerly known as Spills, Leaks, Investigations and Cleanups [CA SLIC] sites). The SWRCB also maintains a separate database of sites with hazardous substance storage, such as sites that contain underground storage tanks (CA USTs) regulated under RCRA, as well as aboveground storage tanks and locations with petroleum storage tanks (CA AST).

Voluntary cleanup sites (CA VCP) is a list of properties that contain a low threat level from either confirmed or unconfirmed releases, and where the project proponents (or property owners) have requested that DTSC oversee investigation and/or cleanup activities.

Additional Records

Both the US EPA and the California Office of Emergency Services maintain records of emergency release reports. The Hazardous Materials Incident Report System (HMIRS) contains hazardous material spill incidents as reported to the Department of Transportation and maintained on the US EPA database, and the California Hazardous Material Incident Report System (CHMIRS) contains information of reported hazardous material incidents (i.e., accidental releases or spills) as reported to the California Office of Emergency Services.

San Mateo County maintains a list (CA San Mateo Co. BI) of all businesses that have filed a Hazardous Materials Business Plan, or that have been locally listed as a hazardous waste generator or that contain underground storage tanks.

The CA HAZNET data is extracted from copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments.

The Facility Index System list (FINDS) contains both facility information and "pointers" to other sources of information that contain more detail. These other sources of information include the Aerometric Information Retrieval System, the Federal Insecticide Fungicide Rodenticide Act, Enforcement Dockets used to manage and track information on civil judicial enforcement cases for all environmental statutes, the federal Underground Injection Control program, and the Chemicals in Commerce Information System. The Enforcement and Compliance History Online (ECHO) list provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide. The list of Formerly Used Defense Sites Properties (FUDS) includes properties where the US Army Corps of Engineers has, or is actively working to take necessary cleanup actions.

There are several record types no longer maintained, but still included in the EDR report. These include the California Historic list (CA HIST) of both known and potential hazardous substance sites (which has been replaced by ENVIROSTOR), and the Statewide Environmental Evaluation and Planning System (CA SWEEPS UST) list of underground storage tank listing.

Summary of Listed Records

Table 11-1 provides a summary of the EDR records check results, identifying those properties within the Project Site as well as outside the boundaries of the Project Site that are identified on these records. It should be noted that many individual properties or sites may be included on multiple records types, and that certain record types may have changed over time (e.g., a listed SQG may now be listed as a LQG,) and/or a previous UST may have been removed and replaced by an AST).

Table 11-1: Summary of EDR Records Search Results

<u>Record Type</u>	<u>Within Project Site</u>	<u>Within 1/8 Mile of Project Site</u>	<u>Within ¼ Mile of Project Site</u>	<u>Within ½ Mile of Project Site</u>
<u>Federal</u>				
Federal National Priorities List Sites	0	0	0	0
RCRA CORRACT Sites	1	0	0	1
RCRA Large Quantity Generators	8	10	3	-
RCRA Small Quantity Generators	7	7	17	-
Federal ERNS List	4	10	-	-
<u>State</u>				
Cal RESPONSE Sites	0	0	1	1
Envirostor Sites	1	2	2	5
CA LUST	6	8	9	26
CA SLIC	2	4	2	9
CA AST	9	6	5	-
CA UST	0	1	1	-
Voluntary Cleanup	0	0	1	-
<u>Additional Records</u>				
HMIRS and CHMIRS	29	695 ⁽¹⁾	-	-
FINDS	63	8	-	-
ECHO	20	5	-	-
San Mateo Co. BI	51	48	57	-
Others, not listed ⁽²⁾				

Notes:

1. The majority of these incident reports all relate to the UPS facility at 657 Forbes Blvd., and include incident reports that occurred throughout the region from the vehicle fleet housed at this location
2. "Others" include but are not limited to CA SWEEPS, Hist UST Sites, CA HAZNET, FUDS, etc.

Source: EDR Report (12/07/17), as amended to more accurately reflect those sites that are/are not within the Project Site boundaries

According to these records, there are seven existing above ground storage tanks within the Project site, primarily storing petroleum products.

Hazard vs. Risk⁷

Workers and the general public health are potentially at risk whenever hazardous materials have been used, or where an exposure to such materials could occur due to the presence of unidentified fill materials or historic uses of a site. Inherent in the Setting and analyses presented in this chapter of the EIR are the concepts of the "hazard" associated with these materials, and the "risk" they pose to human health and the environment. Exposure to some chemical substances may harm internal organs or systems in the human body, ranging from temporary effects to permanent disability or death. Hazardous materials that result in adverse effects are generally considered "toxic." Other chemical materials, however, may be corrosive or react with other substances to form other hazardous materials, but they are not considered toxic because organs or systems are not adversely affected. Because toxic materials can result in adverse health effects, they are considered hazardous materials, but not all hazardous materials are necessarily "toxic". For purposes of the information and analyses presented in this chapter of the EIR, the terms hazardous substances or hazardous materials are used interchangeably and include materials that are considered toxic.

Acute vs. Chronic Health Effect

Whether a person exposed to a hazardous substance would suffer adverse health effects depends upon a complex interaction of factors. These factors include the exposure pathway, the amount of material to which the person is exposed, the physical form (e.g., liquid, vapor) and characteristics (e.g., toxicity) of the material, the frequency and duration of exposure, and the individual's unique biological characteristics (such as age, gender, weight, and general health). Adverse health effects from exposure to hazardous materials may be short-term (acute) or long-term (chronic). Acute effects can include damage to organs or systems in the body, and possibly death. Chronic effects, which may result from long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage and cancer. In the case of pathogenic (disease-causing) organisms or biohazardous materials, for transmission to humans to occur, the pathogen must be present in sufficiently high numbers to cause infection, and contact with the organism must occur.

Other Hazard and Hazardous Materials Issues

Schools and Daycare Facilities

CEQA establishes special requirements for certain projects near schools to ensure that potential health impacts resulting from exposure to hazardous materials, wastes, and substances will be carefully examined and disclosed in a negative declaration or EIR, and that the lead agency will consult with other agencies in this regard.

There are no schools located within or near the Project Area, or within the entire East of 101 area. There are four daycare centers located within the East of 101 area, including:⁸

- Gateway Child Development Center at 559 Gateway Boulevard
- Genentech's Cabot 2nd Generation at 342 Allerton
- Genentech's 2nd Generation at 444 Allerton Ave

⁷ City of South San Francisco, Genentech Facilities Master Plan EIR, 2007

⁸ Genentech's 2nd Generation childcare facility at 850 Gateway Boulevard was closed with opening of the new Genentech childcare facility at 342 Allerton

- Early Years Preschool at 371 Allerton Avenue

Airports

Aviation safety hazards can result if projects are located near airports. The public airport located nearest to the Project Area is San Francisco International Airport (SFO), located approximately 1.5 miles south of the Project area. There are no private airstrips in the vicinity.

Wildland Fires

The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazard based on fuels, terrain, weather and other relevant factors (PRC 4201-4204 and Govt. Code 51175-89). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. The CAL FIRE San Mateo County Fire Hazard Severity Zone Map does not identify any very high or high zones of fire hazard severity in the Project Area.

Regulatory Setting

Adoption of and development pursuant to the Project is subject to government health and safety regulations applicable to the transportation, use, and disposal of hazardous materials. This section provides an overview of the health and safety regulatory framework that is applicable to the Project Area.

Federal

Hazardous Materials Management

The primary federal agencies with responsibility for hazardous materials management include the USEPA, U.S. Department of Labor Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation (DOT). Federal laws, regulations and responsible agencies are summarized below and are discussed in detail in this section.

The Emergency Planning and Community Right to Know Act of 1986 imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that materials are accidentally released.

Hazardous Materials Site Listings

The National Priorities List (NPL) is a compilation of over 1,200 sites for priority cleanup under the Federal Superfund Program. The Proposed National Priorities List identifies sites considered for NPL listing. The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) system contains data on potentially hazardous waste sites that have been reported to the USEPA by California. CERCLIS contains sites that are proposed or are on the NPL, and sites that are in the screening and assessment phase.

Hazardous Waste Handling

Under the Resource Conservation and Recovery Act (RCRA), the US EPA regulates the generation, transportation, treatment, storage and disposal of hazardous waste. The Hazardous and Solid Waste Act amended RCRA in 1984. The amendments specifically prohibit the use of certain techniques for the disposal of hazardous waste.

Hazardous Materials Transportation

The US Department of Transportation (DOT) has the regulatory responsibility for the safe transportation of hazardous materials. The DOT regulations govern all means of transportation except packages shipped by mail (49 CFR). The US Postal Service (USPS) regulations govern the transportation of hazardous materials shipped by mail.

Occupational Safety

The Occupational Safety and Health Act of 1970 (Fed/OSHA) sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR).

Structural and Building Components

The Toxic Substances Control Act (TSCA) regulates the use and management of PCBs in electrical equipment, and sets forth detailed safeguards to be followed during the disposal of such items. The US EPA monitors and regulates hazardous materials used as building components and their effects on human health.

State and local agencies often have either parallel or more stringent regulations than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or of a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the state or local agency section.

Aviation Safety and Aviation Hazards

As more fully described in the Land Use chapter, the Project Area is subject to Federal Aviation Regulations and the San Francisco International Airport Land Use Compatibility Plan (ALUCP), which provides further policies and regulations pertaining to land use that may affect, or be affected by airport operations. As indicated in the Land Use chapter, the Project Area is not located within an ALUCP-designated Safety Compatibility zone. These zones are established to restrict development of land uses that could pose particular hazards to the public or to vulnerable populations in case of an aircraft accident. The Project Area is located outside of the area subject to airport operations-related noise contours, but is subject to Federal Aviation Regulations that provide guidance for the height of objects that may affect normal aviation operations or that could create a safety hazard for aircraft.

State of California

Primary state agencies with jurisdiction over hazardous chemical materials management are the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB). Additional state agencies are also involved in hazardous materials management. These agencies include Cal/OSHA (which is part of the Department of Industrial Relations), State Office of Emergency Services (OES), California Air Resources Board (CARB), Bay Area Air Quality Management District (BAAQMD), California Department of Transportation (Caltrans), California Highway Patrol (CHP), State Office of Environmental Health Hazard Assessment (OEHHA) and the California Integrated Waste Management Board (CIWMB).

In January 1996, the California Environmental Protection Agency (Cal EPA) adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements:

- hazardous waste generators and hazardous waste on-site treatment;
- underground storage tanks;
- aboveground storage tanks;
- hazardous materials release response plans and inventories;

- risk management and prevention programs; and
- Unified Fire Code, hazardous materials management plans, and inventories

The Unified Program is implemented at the local level. The Certified Unified Program Agency (CUPA) is the local agency that is responsible for the implementation of the Unified Program. In South San Francisco, the San Mateo County Department of Environmental Health (SMCDEH) is the designated CUPA.

Hazardous Materials Management

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires that any business that handles hazardous materials prepare a business plan, which must include the following:

- details, including floor plans, of the facility and business conducted at the site;
- an inventory of hazardous materials that are handled or stored on site;
- an emergency response plan; and
- a training program for safety and emergency response for new employees, with annual refresher courses

The California Hazardous Materials Incident Report System (CHMIRS) provides information regarding spills and other incidents gathered from the California Office of Emergency Services.

Hazardous Waste Handling

The DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely.

Under the federal Resource Conservation and Recovery Act of 1976 (RCRA), individual states may implement their own hazardous waste programs in lieu of RCRA, as long as the state program is at least as stringent as federal RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste. The hazardous waste regulations establish criteria for identifying, packaging and labeling hazardous wastes; prescribe management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transportation

The State of California has adopted DOT regulations for the intrastate movement of hazardous materials. State regulations are contained in Title 26 of the California Code of Regulations (CCR), which includes requirements applicable to the transportation of hazardous waste originating in the State and passing through the State. The two state agencies that have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans).

Occupational Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in

Title 29 of the CFR. Cal/OSHA standards are sometimes, but not always, more stringent than federal regulations.

Cal/OSHA Title 8 regulations concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention planning. Cal/OSHA enforces regulations for hazard communication programs, which contain training and information requirements, including procedures for identifying and labeling hazardous substances, and communicating hazard information relating to hazardous substances and their handling. The hazard communication program also requires that Materials Safety Data Sheets (MSDS) be available to employees, and that employee information and training programs be documented. These regulations also require preparation of emergency action plans (escape and evacuation procedures, rescue and medical duties, alarm systems, and training in emergency evacuation).

Cal/OSHA (8 CCR), like Fed/OSHA (29 CFR), includes extensive, detailed requirements for worker protection applicable to any activity that could disturb asbestos-containing materials, including maintenance, renovation, and demolition. These regulations are also designed to ensure that persons working near the maintenance, renovation or demolition activity are not exposed to asbestos.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, CDFG, the San Francisco Bay RWQCB and the South San Francisco Fire Department (SSFFD). The SSFFD provides first response capabilities, if needed, for hazardous materials emergencies within the Project Area.

Genentech will continue to implement the plan at the Project area, in cooperation with the South San Francisco Fire Department.

Structural and Building Components

Adoption and development pursuant to the Project could include demolition of structures, which due to their age, may contain asbestos, PCBs, or lead and lead-based paint. In addition, removal of existing aboveground tanks or USTs may be required.

Asbestos

State laws, including the Clean Air Act, regulate asbestos as a hazardous air pollutant, which subjects it to regulation by BAAQMD under its Regulation 11, Rule 2. OSHA also regulates asbestos as a potential worker safety hazard. These regulations:

- prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities
- require medical examinations and monitoring of employees engaged in activities that could disturb asbestos
- specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers, and
- require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos

Asbestos represents a human health risk when asbestos fibers become airborne (friable) and are inhaled into the lungs. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants,

including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work. Cal/OSHA regulates the removal of asbestos to ensure the health and safety of workers, and Cal/OSHA must be notified in advance of any asbestos abatement activities.

Polychlorinated Biphenyls (PCBs)

PCBs are organic oils that were formerly placed in many types of electrical equipment and in fluorescent lighting ballasts. PCBs are highly persistent in the environment and are toxic. In 1979, the USEPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act (40 CFR). Fluorescent lighting ballasts that contain PCBs, regardless of size and quantity, are regulated as hazardous waste and must be transported and disposed of as hazardous waste.

Lead and Lead-Based Paint

The CCR, Title 22, considers waste soil with concentrations of lead to be hazardous if it exceeds a total concentration of 1,000 ppm and a soluble concentration of 5 ppm. Both the federal and California OSHAs regulate all worker exposure during construction activities that involve lead based paint. The Interim Final Rule found in 29 CFR Part 1926.62 covers construction work where employees may be exposed to lead during such activities as demolition, removal, surface preparation for re-painting, renovation, clean up and routine maintenance. The OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, training, etc.

Additional Regulatory Setting Specific to Biomedical Facilities

Microbiological, Biomedical and Animal Laboratories

The United States Department of Health and Human Services (USDHHS), Centers for Disease Control and Prevention, and National Institutes of Health prescribe containment and handling practices for use in microbiological, biomedical and animal laboratories. All Genentech laboratories follow the mandated hygienic practices. Based on the potential for transmitting biological agents, the rate of transmission of these agents, and the quality and concentrations of biological agents produced at a laboratory, Biosafety Levels are defined for four tiers of relative hazards. Bio-safety Level 1 is for the least hazardous biological agents, and Bio-safety Level 4 is for the most hazardous biological agents. Biosafety Levels for infectious agents are based on the characteristics of the agent (virulence, ability to cause disease, routes of exposure, biological stability and communicability), the quantity and concentration of the agent, the procedures to be followed in the laboratory, and the availability of therapeutic measures and vaccines.

Federal and state laws, such as the Animal Welfare Act, specify standards for record keeping and the registration, handling, care, treatment and transportation of animals. Such laws are enforced by the U.S. Department of Agriculture and the California Department of Health Services (DHS).

Genentech programs, practices and procedures for monitoring, routine inspection, reporting and waste management have been developed to reduce potential community and worker exposure to hazards associated with the use of animals in research.

Medical wastes must be managed as a biohazardous material, in accordance with Section 117635 of the California Health and Safety Code. The management of biohazardous materials must comply with USDHHS guidelines and DHS regulations pertaining to such materials. Biohazardous medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment and transportation. The DHS Medical Waste Management Program enforces the Medical Waste Management Act and related regulations.

Radioactive Materials Regulations

The Atomic Energy Act (42U.S.C. Sections 2011- 2259) (AEA) ensures the proper management of source, special nuclear, and by-product material. The AEA, and the statutes that amended it, delegate the control of nuclear energy primarily to the Department of Energy, the Nuclear Regulatory Commission and the United States Environmental Protection Agency (EPA). The California Radiation Control Law California Health & Safety Code Sections 114960-114985) is a regulatory program designed to provide for compatibility with the standards and regulatory programs of the federal government and integrate an effective system of regulation within the state. The program regulates sources of ionizing radiation and establishes procedures for performance of certain regulatory responsibilities with respect to the use and regulation of radiation sources. These laws and regulations govern the receipt, storage, use, transportation and disposal of sources of ionizing radiation (radioactive material) and protect the users of these materials and the public from radiation hazards.

The use of radioactive materials at the Genentech site is specifically subject to the conditions of a radioactive materials license issued and administered by the Radiologic Health Branch of the DHS. Genentech administers and monitors facility compliance with license requirements. Radioactive materials licensing requirements include routine inspection and monitoring of areas where radioactive materials are used, to ensure that surfaces are not contaminated with radioactivity above background levels. Under the radioactive materials license, renovation or demolition of facilities using radioactive material requires decommissioning of the facilities. This involves radiation testing and conducting decontamination and waste handling activities in accordance with applicable regulations.

Local

San Mateo County Health Department

The San Mateo County Health Department, Environmental Health Division is the primary local agency approved as the Certified Unified Program Agency (CUPA) with responsibility for implementing federal and state laws and regulations pertaining to hazardous materials management. The Unified Program is the consolidation of six state environmental regulatory programs into one program under the authority of a CUPA. A CUPA is a local agency that has been certified by CalEPA to implement the six state environmental programs within the local agency's jurisdiction. This program was established under the amendments to the California Health and Safety Code made by SB1082 in 1994. The six consolidated programs are:

- Hazardous Materials Release Response Plan and Inventory (Business Plans)
- California Accidental Release Program (CalARP)
- Hazardous Waste (including Tiered Permitting)
- Underground Storage Tanks
- Above Ground Storage Tanks, and
- Hazardous Materials Management Plan and Hazardous Materials Identification System

As the local CUPA, the San Mateo County Health Department, Environmental Health Division maintains the records regarding location and status of hazardous materials sites in the county, and administers programs that regulate and enforce the transport, use, storage, manufacturing and remediation of hazardous materials. By designating a CUPA, San Mateo County has accurate and adequate information to plan for emergencies and/or disasters, and to plan for public and firefighter safety.

A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction, on behalf of the CUPA. The City of South San Francisco Fire Department maintains a special program that regulates hazardous materials through disclosure and risk

management plans, as well as referrals to the County of San Mateo for above ground storage tanks. Thus, the City of South San Francisco Fire Department is a PA with the San Mateo County Health Department, Environmental Health Division as the CUPA.

South San Francisco General Plan (1999)

The City of South San Francisco General Plan describes goals and policies that address the patterns of urban and industrial development in South San Francisco that may pose risks to human health and property. The goals and policies of the General Plan Safety Element are intended to acknowledge and mitigate the risk posed by such hazards. Pertinent Safety Element policies are listed below:

- **Policy 8.3-G-2:** Minimize the risk to life and property from the generation, storage and transportation of hazardous materials and waste in South San Francisco. Comply with all applicable regulations and provisions for the storage, use and handling of hazardous substances as established by federal (EPA), State (DTSC, RWQCB, Cal OSHA, Cal EPA), and local (County of San Mateo, City of South San Francisco) regulations.
- **Policy 8.3-I-2:** Continue to maintain hazardous waste regulations in the City's Zoning Ordinance.
- **Policy 8.3-I-3:** Prepare a Geographic Information Systems (GIS) coverage for the sites included in the Cortese List of Hazardous Waste and Substances Sites.
- **Policy 8.3-I-4:** Establish an ordinance specifying routes for transporting hazardous materials.
- **Policy 8.4-I-3:** Require site design features, fire retardant building materials, and adequate access as conditions for approval of development or improvements to reduce the risk of fire within the City.
- **Policy 8.6-I-1:** Maintain and update the City's Emergency Response Plan, as required by State law, to minimize the risk to life and property of seismic and geologic hazards, flooding, hazardous materials and waste, and fire.
- **Policy 8.6-I-3:** Coordinate regular emergency drills with emergency organizations, including City and County Fire, Police, Emergency Medical Services, and Public Works; San Francisco International Airport; and California Environmental Protection Agency.
- **Policy 8.7-I-1:** Do not permit land uses that pose potential hazards to air navigation in the vicinity of SFO. These land uses include the following:
 1. Any use that would direct a steady or flashing light of white, red, green or amber color towards an aircraft engaged in an initial straight climb following takeoff or toward a landing, other than FAA-approved navigational lights
 2. Any use that would cause sunlight to be reflected toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing
 3. Any use that would generate smoke or rising columns of air
 4. Any use that would attract large concentrations of birds within approach and climb-out areas; and
 5. Any use that would engage electrical interference that may interfere with aircraft communications or aircraft instrumentation

East of 101 Area Plan (adopted 1994)

The Project Area is also located within the *East of 101 Area Plan* planning area, which provides a detailed implementation guide for the area. The East of 101 Area Plan is principally used to provide direction related

to project design and certain other facets of development in the area not otherwise covered in the General Plan or other City plans. Some of the policies in the East of 101 Area Plan related to hazards and hazardous concerns are listed below.

- **Policy L1U9:** Uses that emit loud noise or create hazardous materials, water contaminants or other pollutants shall only be allowed in the East of 101 Area after review by the Planning Commission. The Planning Commission must find, in addition to any other required findings, that a proposed use would include all feasible measures to mitigate such adverse impacts and that the use would also have mitigating benefits such as employment creation or revenue generation.
- **Policy L2U3:** Maximum heights of buildings in the East of 101 Area shall not exceed the maximum heights established by the Airport Land Use Commission based on Federal Aviation Regulations Part 77 Criteria.
- **Policy L3U1:** No new above ground, bulk fuel tanks are permitted after July 25 1994. Any above ground fuel tanks that lawfully existed prior to July 1994 may be maintained but may not be replaced or expanded.
- **Policy G5EO:** If hazardous fill such as garbage organics is encountered, it shall be appropriately disposed by a project developer during construction. This material shall not be used for either structural fill or grading fill. However, other uses may be possible such as landscaping around vegetation if the fill has a high organic content. If no acceptable use is found on-site, the hazardous fill should be properly disposed off-site.

South San Francisco Municipal Code

The South San Francisco Municipal Code includes regulatory requirements addressing use and disposal of hazardous materials and hazardous waste. These regulatory requirements include the following:

Chapter 8.16 Solid Waste—Scavenger Services

- **Section 8.16.125, Yard waste; construction and demolition debris; hazardous waste and household hazardous waste:** Yard waste removed from a residential, commercial and industrial or institutional property by a gardening, landscaping or tree trimming contractor as an incidental part of a comprehensive service offered by such contractor, rather than as a hauling service, may be disposed of by such contractor at any licensed landfill, transfer station or materials recovery facility. Construction debris and/or demolition debris removed from a residential, commercial and industrial or institutional property by a licensed construction or demolition contractor using its own employees and equipment as an incidental part of a comprehensive service offered by such contractor, rather than as a hauling service, may be disposed of by such contractor at any licensed transfer station or materials recovery facility. Hazardous waste and household hazardous waste may be disposed of in any lawful manner.

Chapter 14.04 Stormwater Management and Discharge Control

- **Section 14.04.320, Coordination with hazardous materials inventory and response program:** The first revision of a business plan for any facility subject to the city's hazardous materials inventory and response program shall include a program for compliance with this chapter, including the prohibitions on non-stormwater discharges and illicit discharges, and the requirement to reduce stormwater pollutants to the maximum extent practicable.

Chapter 14.08 Water Quality Control

- **Section 14.08.170, Reporting and recordkeeping requirements for permittee:** All industrial users discharging any substance which, if otherwise disposed of, would be a hazardous or acutely

hazardous waste under 40 CFR part 261, must comply with the notification requirements in 40 CFR 403.12(p)(1) and (3) unless exempted under the provisions of 40 CFR 403.12(p)(2). Any written notification required by this subsection shall be provided to the city, the EPA Regional Waste Management Division Director and state hazardous waste authorities. The industrial user shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical. The city may accept a copy of a hazardous waste reduction or minimization plan otherwise required by law, as compliance with this requirement.

- **Section 14.08.210, General discharge regulations:** It is unlawful to discharge or cause to be discharged directly or indirectly, any pollutant or wastewater into any storm sewer or into any sewage facility that will interfere with the operation or performance or pass through of the POTW. These general prohibitions apply to all users whether or not the user is subject to categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements. The discharge of the following is prohibited:
 1. wastes or wastewater containing any radioactive materials except in compliance with applicable state and federal regulations
 2. Any pesticides containing algacides, antibiotics, fungicides, herbicides, insecticides or any similar pesticides in amounts deleterious to any sewage treatment process or to the aquatic life of the waters receiving the effluent, and
 3. Any wastewater or pollutant that results in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker or public health or safety problems

Genentech Policies and Standards

Genentech has developed, and maintains and implements, a proactive Environment, Health and Safety Program that specifically includes procedures that ensure compliance with applicable laws, regulatory agency standards and corporate safety, health and environment directives. Genentech Environment, Health and Safety Program leadership is responsible for site compliance with safety legislation and ensuring that safety policies and practices are adopted and implemented. The Environment Health and Safety Program also includes planning, implementation, monitoring and review of practices and procedures that include protective and preventive safety measures. Examples of Genentech's practices and programs that are in place to ensure ongoing compliance with regulatory requirements governing the management of hazardous materials include the following:

- Genentech has Storm Water Pollution Prevention Plans and Spill Prevention Control and Countermeasure Plans to manage the potential risks associated with an accidental release of hazardous materials to storm drains. Stormwater is monitored regularly, consistent with regulatory requirements.
- The Genentech Chemical Hygiene Plan describes the company's laboratory safety program, and applies to all employees engaged in the use of hazardous chemicals in laboratories. The Chemical Hygiene Plan sets forth requirements and accountability for the proper labeling of all laboratory chemicals, the provision of appropriate training for lab personnel, the provision of appropriate protective equipment, and the implementation of periodic inspections.
- Genentech has a comprehensive Biosafety Program designed to protect employees against potential occupationally acquired infections, to prevent environmental releases of biohazardous materials and wastes, and to ensure compliance with regulations and guidelines applicable to biological materials. The Biosafety Program consists of several components including the Genentech Institutional

Biosafety Committee, the Biosafety Manual, the Medical Surveillance Program and the Blood-borne Pathogens Program (including Exposure Control Plan).

- Genentech has a comprehensive Laboratory Waste Management Guide providing detailed information and resources to laboratory personnel regarding the precise protocols for management of laboratory waste streams that may be hazardous, including radioactive waste, biohazardous waste, laboratory chemical waste and non-chemical solid wastes.
- Genentech has an Institutional Biosafety Committee and a Radiation Safety Committee to oversee compliance efforts and practices where biohazardous and radioactive materials may be used, as well as a Research and Process Development Oversight Committee to oversee all issues pertaining to research laboratory and process development activities.
- Genentech has an Injury & Illness Prevention Program, as well as a Hazard Communication Program to ensure that employees are aware of any workplace hazards, as well as the applicable hazardous materials management requirements. Training courses are provided to employees based on their job duties and responsibilities pertaining to hazardous materials and/or wastes.
- Genentech maintains a company intranet on which all relevant company programs, procedures, standards and general information and resources for employees are maintained.
- Genentech has a database of all chemicals used on-site that is accessible by all employees.
- Genentech has a Medical Surveillance Program to identify individuals and/or health conditions that warrant special attention for work exposures, and to detect early possible effects of potentially harmful work exposure. Personal monitoring devices (such as dosimetry badges, finger-rings, organic vapor monitors, sampling tubes and cartridges, and direct reading instruments) are employed to conduct work area and employee monitoring.

Impacts and Mitigation Measures

Analytic Method

The analysis in this section focuses on the use, generation, disposal, transport or management of hazardous or potentially hazardous materials at the Genentech Campus. This includes disposal options, the probability for risk of upset, and the severity of consequences to people or property associated with the increased use, handling, transport and/or disposal of hazardous materials associated with construction and ongoing implementation of the Project.

Thresholds of Significance

The following thresholds of significance are based on Appendix G of the CEQA Guidelines, established City of South San Francisco standards and practices, and the prior 2007 MEIR and its 2012 SMEIR. For purposes of this EIR, implementation of the Project could result in potentially significant impacts related to hazardous materials and waste, or other hazards, if the Project would result in any of the following:

1. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
2. 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.
3. Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

4. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
5. 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, if the project results in a safety hazard or excessive noise for people residing or working in the project area.
6. Impair implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

Routine Transport, Use, Disposal or Storage of Hazardous Materials

Hazards 1: Implementation of the Project would not expose Genentech employees or the nearby public to significant hazards due to the routine transport, use, disposal or storage of hazardous materials (including chemical, radioactive and biohazardous waste). **(Less than Significant with Regulatory Compliance)**

Implementation of the Project would result in development of additional laboratories and other research facilities that are likely to use, store or require the transportation and disposal of hazardous materials. The amount and type of hazardous materials may vary over time, with changes in research and additions to hazardous materials lists. However, the general range and type of hazardous materials used on-site can be expected to be similar to those materials that are currently used, some of which are considered hazardous, during the course of daily operations. These hazardous materials include inorganic and organic chemicals, chemical reagents and reaction products, solvents, mercury, lead, asbestos, radioisotopes, biohazards, fuels, oils, paints, cleansers, and pesticides.

The Project would also result in an increase in the number of people that work and visit the Project area, increasing the number of individuals potentially exposed to hazardous materials. The individuals most at risk would be those employees who work at locations where hazardous materials are found (laboratories, production and maintenance facilities and construction sites). Whether a person exposed to a hazardous substance at one of these locations may suffer adverse health effects depends upon a complex interaction of factors. Factors that determine the effects of exposure to hazardous materials include the exposure pathway (the route by which a hazardous material enters the body), the amount of material to which the person is exposed, the physical form (e.g., liquid, vapor) and characteristics (e.g., toxicity) of the material, the frequency and duration of exposure, and the individual's unique biological characteristics (e.g., age, gender, weight, and general health). Adverse health effects from exposure to hazardous materials may be short-term (acute) or long-term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic effects, which may result from long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage and cancer.

Off-site hazardous materials exposure could occur through limited circumstances, such as accidental spills or release during transport or use.

Regulatory Requirements

Genentech must comply with the safety procedures mandated by applicable federal, state and local laws and regulations (e.g., RCRA, California Hazardous Waste Control Law and principles prescribed by the US Department of Health Services) to ensure that risks resulting from the routine use of hazardous materials and disposal of hazardous wastes remain less than significant. Genentech has established programs, practices and

procedures, and safety standards in compliance with these regulations related to use, disposal and transport of hazardous materials and wastes.

Safety programs will reduce the risk of exposure to biohazardous and chemical hazardous materials through established protocols to safely handle and store hazardous substances. Genentech ensures that their facilities comply with the California Code of Regulations (Title 17) and the conditions of its radioactive materials license. Radiation use authorizations and ongoing training regarding radiation safety also reduce the risks from radiation-related use or disposal on-site. Federal and state laws, as well as all Genentech procedures for handling hazardous wastes, will be extended to all new facilities developed under the Project, as applicable. The potential impact of increased hazardous chemical, biohazardous and radioactive material use at Genentech would remain less than significant.

Regulatory Requirements Hazards 1A - Use of Chemical Materials: Genentech shall comply with all State, federal and local regulations, and Genentech programs, practices and procedures that ensure the potential for worker and/or public exposure to hazardous chemicals from improper or unsafe activities or from accidents is less than significant.

- 1) To reduce the potential for exposure to airborne chemicals, workers shall take standard precautions such as working under fume hoods when using chemicals that could present exposure hazards. The chemical fume hood is a critical health and safety control in the laboratory setting, ensuring an adequate level of protection from possible harmful effects of chemicals. Proper use of fume hoods keeps exposure to toxic air contaminant levels within indoor laboratories below levels required by Cal/OSHA (Permissible Exposure Levels).
- 2) To prevent exposure through skin contact, Genentech shall require that protective clothing such as laboratory coats, gloves and safety glasses, be worn while handling hazardous materials. Proper washing after handling chemicals is required. Eating, drinking and smoking are prohibited in laboratories and other areas where hazardous materials are used. These procedures are disclosed to all staff that work with hazardous materials. By training staff, Genentech increases the safety awareness of Genentech employees and further reduces the risks of exposure to hazardous chemicals through inhalation, absorption, ingestion and injection. Should an accident occur that could cause exposure of an individual to hazardous materials, required emergency equipment (e.g., fire extinguishers, eyewashes and safety showers) is also available.
- 3) Cal/OSHA requires all institutions that use hazardous materials to implement a Hazard Communication Program and to train employees that use hazardous chemicals in the safe use of those materials. Genentech implements all safety procedures and conducts safety programs to ensure that these OSHA safety procedures are consistently followed. Genentech will continue to implement these (or equivalent) programs, practices and procedures, and will expand these programs as needed. Title 8 of the California Code of Regulations (Section 3203 of the General Industry Safety Orders) also requires every California employer to have a written Injury and Illness Prevention Program to provide a safe and healthful workplace. OSHA mandates methods of documenting, investigating and controlling accidents that result in skin penetration. Evidence presented during OSHA rule-making procedures indicates that these programs and methods are effective in reducing the number and severity of injuries and illness in the workplace.

Regulatory Requirements Hazards 1B - Use of Radioactive Materials: The use of radioactive materials at the Genentech site is specifically subject to the conditions of a radioactive materials license issued and administered by the Radiologic Health Branch of the DHS. Genentech administers and monitors facility compliance with license requirements. Radioactive materials licensing requirements include routine inspection and monitoring of areas where radioactive materials are used, to ensure that surfaces are not contaminated with radioactivity above background levels. Under the radioactive materials license, renovation or demolition of facilities using radioactive material requires

decommissioning of the facilities. This involves radiation testing and conducting decontamination and waste handling activities in accordance with applicable regulations.

- 1) Use of radioactive materials at Genentech is monitored to ensure consistency with requirements of Genentech's radioactive materials license as issued and administered by the Radiologic Health Branch of the DHS. These licensing requirements articulate standards to maintain radiation exposure levels below applicable legal standards, thereby protecting users of radioactive materials.
- 2) Like all hazardous materials, the effects of the routine use of radioactive materials are limited to areas where exposure may occur and decreases substantially with distance. For this reason, the individuals most at risk would be those specially trained in the use of radioactive materials, thereby reducing the likelihood for accidental exposure through improper handling techniques. All individuals who handle radioactive waste are required to wear a personal monitor that determines their cumulative exposure to radiation. If the monitor indicates that established safety levels might be exceeded, the individual is prevented from being exposed to potential sources of radiation until the monitor indicates that safety levels can be maintained.

Regulatory Requirements Hazards 1C - Use of Biohazardous Materials: Genentech complies with guidelines promulgated by the United States Department of Health and Human Services (USDHHS), Centers for Disease Control and Prevention, and National Institutes of Health that determine the level of safety precautions that must be used for four tiers of relative hazards. Biosafety Level 1 is for the least hazardous biological agents, and Biosafety Level 4 is for the most hazardous biological agents. Biosafety Levels for infectious agents are based on the characteristics of the agent (virulence, ability to cause disease, routes of exposure, biological stability and communicability), the quantity and concentration of the agent, the procedures to be followed in the laboratory, and the availability of therapeutic measures and vaccines. Biosafety Level 1 agents pose minimal or no known potential hazards to individuals and the environment. Biosafety Level 2 agents are considered to be of ordinary potential hazard and may produce varying degrees of disease through accidental inoculation, but may be effectively contained by ordinary laboratory techniques and specific laboratory equipment. Biosafety Level 3 agents pose a more substantial risk, and work with these agents must be conducted in contained facilities for which airflow is directed into the laboratory and access is controlled separately from public areas.

- 1) Occupational and public safety is protected by selecting the appropriate biological and physical containment levels for each biological material handled. Standard microbiological practices, such as limiting facility access, washing hands after handling, de-contaminating work surfaces, wearing gloves and other safety equipment, using biosafety cabinets, and proper disposal reduce risks resulting from exposure to biohazardous materials.
- 2) Current state testing, monitoring and disposal regulations, and Genentech's own programs pertaining to the management of biohazardous materials (including infectious agents), further ensure that risks associated with use of biohazardous substances remain less than significant.
- 3) Medical wastes are managed by Genentech as a biohazardous material, in accordance with Section 117635 of the California Health and Safety Code and with USDHHS guidelines and DHS regulations. Biohazardous medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, transportation and disposal.

Regulatory Requirements Hazards 1D - Disposal of Hazardous Materials: Genentech disposes of hazardous wastes in compliance with Titles 8, 14, 17 and 22 of the California Code of Regulations.

- 1) Spent hazardous materials generated on a daily basis in research, production and maintenance facilities are placed in special containers and are kept in specially designated and ventilated accumulation areas. These hazardous wastes are collected and accumulated in designated and secured areas designed to prevent accidental release to the environment. Wastes are transported off-site by licensed hazardous waste transporters to permitted hazardous waste disposal facilities, and emergency response procedures for all on-site storage sites are included in the Genentech Hazardous Waste Contingency Plan. Biohazardous wastes are managed in the same way, though separately.
- 2) In accordance with strict regulatory guidelines of the Department of Energy, the Nuclear Regulatory Commission, the US EPA and the California Radiation Control Law (California Health & Safety Code Sections 114960-114985), Genentech collects, prepares and packages its radioactive waste. Radioactive waste is then transported by a radioactive waste broker to a licensed radioactive waste disposal facility.

Regulatory Requirements Hazards 1E – Hazardous Materials Transport: The CHP and US DOT strictly regulate the transportation of hazardous materials to and from the site. Procedures mandated by federal and state laws and regulations include driver training and licensing, standardized hazard warning placards for vehicles, shipping manifest requirements and standards for classifying, handling and packaging hazardous materials. Continuation of existing (or equivalent) Genentech programs, practices and procedures, will ensure that the use, transport or disposal of hazardous materials does not expose employees, visitors or the nearby public to significant health or safety risks.

Mitigation Measures

No mitigation is required.

Mandatory compliance with all applicable federal, State and local regulations pertaining to the safe use, storage, transport and disposal of hazardous materials (including chemical, radioactive, and biohazardous waste used at Genentech facilities) will ensure that the exposure of Genentech employees or the nearby public will be reduced to levels determined by these regulations to be less than significant.

Reasonably Foreseeable Upset and Accident Conditions

Hazards 2: Implementation of the Project would not 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. **(Less than Significant with Regulatory Compliance)**

The following discussion focuses on the potential nature and magnitude of risks associated with accidental release of those types of hazardous materials typically used on site.

Hazardous waste shipments may occur as frequently as several times per week. The transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire or explosion.

In addition to transport of hazardous materials to and from the Genentech facility, the movement of hazardous materials also occurs within buildings at the Genentech facility. Accidents could occur as these materials are moved about the facility, and exposure of employees could occur through fire or explosion. The consequences of an on-site spill depend on whether hazardous materials are released, the specific hazards associated with the material, the facility design and the availability of emergency response equipment. In addition to health impacts associated with direct contact from an accidental spill, indirect impacts could also occur. Spills that occur on permeable surfaces may be difficult to decontaminate and may require complete removal of the surface. In areas without adequate ventilation, including partially enclosed outdoor areas, vapors from released volatile materials could be trapped in stagnant air pockets and persons entering these areas after such a spill could be subject to health hazards associated with such vapors.

Hazardous materials are stored in laboratories in designated secured areas designed to prevent accidental release to the environment. Hazardous materials used for research are generally stored in laboratories in small, individual containers. In the unlikely event of an accidental release, these small storage volumes limit potential consequences to the individual laboratory in which they are stored.

For those employees that work with hazardous materials, the amount of hazardous materials that are handled at any one time is relatively small, reducing the potential consequences of an accident during handling. Major hazardous materials accidents are extremely infrequent and additional emergency response capabilities are not anticipated to be necessary to respond to the potential incremental increase in the number of incidents that could result from implementation of the Project.

Regulatory Requirements

Regulatory Requirements Hazards 2A - Off-Site Transportation of Hazardous Materials: The USDOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the Code of Federal Regulations, and implemented by Title 13 of the California Code of Regulations. Transportation of hazardous materials along any City or state roadways within or near Genentech is also subject to all hazardous materials transportation regulations established by the California Highway Patrol pursuant to the California Vehicle Code and the South San Francisco Fire Department (SSFFD).

- 1) In compliance with these regulations, Genentech's programs, practices and procedures specifically govern receipt of hazardous materials. Licensed vendors bring hazardous materials to and from the facility, and manifests are completed and maintained by Genentech for all hazardous waste that is transported. The DTSC maintains copies of Genentech's waste manifests. In conformance with additional legal requirements, incoming radioactive material is monitored and recorded for each acquisition. Genentech processes and delivers all incoming radioactive materials to end users.
- 2) Section 31303 of the California Code of Regulations requires that when hazardous materials are transported on state or interstate highways, the highways that offer the shortest overall transit time possible shall be used. As required by federal and state laws, all other hazardous materials transportation regulations must be followed, including USDOT regulations for packaging and handling hazardous materials to prevent accidental spills of hazardous materials during transit.

Compliance with all applicable federal and state laws, as well as all Genentech programs, practices and procedures related to the transportation of hazardous materials will continue to reduce the likelihood and severity of accidents during transit.

Regulatory Requirements Hazards 2B - Hazardous Materials Use, Storage and On-Site Transportation:

Management of risk and minimizing the potential for upset and accident conditions involving the release of hazardous materials is regulated by numerous federal, State and local laws and regulations.

- 1) The Cal EPA's regulations pursuant to the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program addresses (among other matters) a number of programs specifically designed to minimize such risks. These programs require all businesses that handle hazardous materials to prepare a Hazardous Materials Release Response Plan and inventory, a Risk Management and Prevention program, and compliance with Unified Fire Code requirements. These programs are implemented at the local level, and in South San Francisco, the San Mateo County Department of Environmental Health (SMCDEH) is the designated Certified Unified Program Agency (CUPA) responsible for implementation of these programs.

- 2) The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires that any business that handles hazardous materials prepare a Business Plan. That Business Plan must include details of the facility and business conducted at the site, an inventory of hazardous materials that are handled or stored on site, an emergency response plan and a training program for safety and emergency response for new employees, with annual refresher courses.
- 3) The USDHHS, CDC, NIH and DHS all prescribe containment and handling practices for use in microbiological, biomedical and animal laboratories. Medical wastes must be managed as a biohazardous material, in accordance with Section 117635 of the California Health and Safety Code, and the management of biohazardous materials must comply with USDHHS guidelines and DHS regulations.
- 4) The Atomic Energy Act ensures the proper management of source, special nuclear, and by-product material. The California Radiation Control Law California Health & Safety Code Sections 114960-114985) is a regulatory program designed to provide for compatibility with the standards and regulatory programs of the federal government and integrate an effective system of regulation within the state. These laws and regulations govern the receipt, storage, use, transportation and disposal of sources of ionizing radiation (radioactive material), and protect the users of these materials and the public from radiation hazards.

Genentech complies with all of these applicable federal, State and local laws and regulations via Genentech programs, practices and procedures related to the storage and use of hazardous materials. Safe storage of hazardous materials will continue to be implemented to maximize containment through safe handling and storage practices, and to provide for prompt and effective cleanup if an accidental release occurs. Genentech will also continue to comply with federal and state laws and existing Genentech programs, practices and procedures to eliminate or reduce the consequence of hazardous materials accidents, should they occur. Staff members who work around hazardous materials will continue to wear appropriate protective equipment, and safety equipment will continue to be available in all areas where hazardous materials are used.

Genentech will also continue to implement all applicable federal and State laws and existing Genentech programs, practices and procedures to prevent against the risks of accidental spills or releases of hazardous materials during internal transfers and movement of these materials, and the cleanup of hazardous materials in the event of an accidental release. These laws, regulations, programs, practices and procedures include training regarding the handling of hazardous wastes, and fully developed Emergency Response Programs. If a spill occurs, the Genentech First Alert Team will be immediately notified, and if required, the area of potential affect will be isolated and evacuated as appropriate in accordance with Genentech's Integrated Contingency Plan to reduce the potential for human exposure and to allow for prompt and effective cleanup. In such instances, all individuals will be evacuated from the affected area until vapors dissipate to safe levels.

Mitigation Measures

None required. Continued compliance with all applicable federal, state and local laws and regulations pertaining to the transport, use, disposal, and handling of hazardous waste, as well as implementation of Genentech's programs, practices and procedures, will ensure that impacts related to accidental spills and upset involving hazardous materials remains less than significant.

Cortese List Sites

Hazards 3: Although some Project area facilities are included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, implementation of the Project would not

create a significant hazard to the public or the environment due to the presence of these listed facilities. **(Less than Significant with Regulatory Compliance)**

Certain Genentech facilities and other sites within the Project area are included on lists and databases compiled by applicable federal, state and local agencies pursuant to Government Code Section 65962.5. For the most part, these sites consist of registered facilities that generate, transport, store, treat and/or dispose of hazardous waste, registered active or inactive underground storage tanks (USTs), and registered hazardous materials storage locations, rather than contaminated sites (e.g., soil or groundwater) that may create a significant hazard to the public or the environment.

As indicated in the Setting section of this chapter of the EIR, there is one open (or active) contaminated site within the Project Area where an investigation and/or remediation is in progress and where a regulatory agency is still actively involved. This site is the O'Brien Corporation site located at 450 East Grand Avenue on the South Campus. This site is designated by the DTSC as a "Closed Case" but with Corrective Action.⁹ The O'Brien site is also designated by the SWRCB as a Cleanup Program Site with cleanup status "Open – Inactive" as of February 2017.¹⁰

The O'Brien site is part of the former Fuller O'Brien paint manufacturing property, and historic site activities associated with Fuller O'Brien included manufacturing of varnish for coating horseless carriages, production of vinyl baking finishes, baking enamels, water-thinned latex paints, water-based latex paints, solvent paints (oils and alkyds), lacquers and thinner solvents. The hazardous wastes generated from these prior processes were managed in surface impoundments (ponds). These ponds, a storage area, two storage tanks and other associated facilities were evaluated pursuant to the federal Resource Conservation Recovery Act (RCRA). The Facility Assessment identified nineteen solid waste management units and six areas of concern. The main hazardous waste constituent of concern was lead. Other constituents of concern included metals, total petroleum hydrocarbons (TPH), volatile organic compounds and semi-volatile compounds. Documented regulatory actions for this site are summarized as follows:¹¹

- In December 1987, a RCRA Facility Assessment was completed under authority of US EPA, which identified hazardous waste and hazardous waste constituents of concern, including lead and other metals, volatile organic compounds, semi-volatile organic compounds (benzo(a)anthracene and benzo(b)fluoranthene), arsenic, and total petroleum hydrocarbons. The US EPA separated the subsequent site investigations into two parts; US EPA retained lead agency status for soil remediation, and DTSC took lead agency status for groundwater investigations and remediation.
- April 2000: The US EPA approved a soil remedy plan including soil removal and capping, and that soil remedy plan was subsequently implemented.
- October 2000: Because soil with concentrations exceeding cleanup standards remained below the cap following all remedial actions, institutional controls (a deed restriction on future land uses) were imposed. The Deed Restriction was filed with San Mateo County to restrict the property to industrial use, with provisions for exceptions subject to DTSC approval.
- 2001: Groundwater investigations continued.
- 2005: DTSC approved a revised soil remedy, a methane mitigation system was implemented and the RCRA Facility Investigation, which was initiated in 1987, concluded. A "No Further Action" letter was issued for soil contamination

⁹ https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001530

¹⁰ http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL18341761

¹¹ California DTSC, accessed at: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001530

- 2008: Deed restriction was amended to allow a portion of the site to have unrestricted use.
- March 2008: An Agreement for Operation and Maintenance was recorded by DTSC.
- August 2008: DTSC issued a “Corrective Action Completion with Controls” determination. On-site and off-site risks related to groundwater contamination were deemed acceptable by DTSC for all media and receptors.
- August 2011: A request was made to cease monitoring of the passive methane mitigation systems at the site, DTSC approved this request in March 2012 and the methane mitigation monitoring activities were discontinued.
- June 2014: DTSC issued a “Remedy Construction Complete” report, which deemed that the environmental indicators for human health and groundwater had been met, and remedies were complete.
- 2016: Genentech acquired this property and initiated construction of a new building (Building 40). DTSC records pertain primarily to Genentech’s construction efforts related to Building 40, and compliance with the Deed Restrictions and Site Management Plan to minimize potential exposure and contamination during construction (i.e., dust control monitoring, pipe grouting, soil disturbance for construction of bio-swales, and notifications for other subsurface work).
- 2017: Genentech began utilities trenching and other work associated with construction of Building B40 at the site and expansion of a cafeteria within Building B42, both partially within the capped portion of the property. At DTSC's request, Genentech implemented a Dust Control Monitoring Plan to demonstrate that the B40 construction activities were not generating dust above local air board requirements.

The B40 construction project is anticipated to end later in 2019, and DTSC and Genentech are currently discussing how these activities will be documented, and whether existing site plans for managing future activities need to be updated.

Regulatory Requirements

Future development of any site that has a documented release of hazardous materials and that is listed in a regulatory database (such as any additional work within the bounds of the O’Brien site) is subject to site clean-up regulations as required by the lead regulatory agency.

Regulatory Requirement Hazards 3 – DTSC Deed Restrictions and Enforcement Plan: The O’Brien site is still subject to deed restrictions and the Agreement for Operations and Maintenance (which includes a requirement to comply with the Land Use Covenant Implementation Enforcement Plan). As a result, the following regulatory controls remain applicable to this site:

- 1) Activities that may disturb existing groundwater monitoring wells shall not be permitted without prior review and approval by DTSC.
- 2) The capped portion of the site may be variously occupied by buildings, paved with either concrete or asphalt or covered with landscaping or other vegetative cover, clean soil imported from an off-site location, or with other suitable cover to mitigate direct exposure.
- 3) Engineering controls such as wind erosion control and dust suppression must be implemented during construction activities to minimize or mitigate potential exposure of contaminated soil.
- 4) Any contaminated soils that may be brought to the surface by future grading, excavation, trenching, backfilling or other activity shall be managed in accordance with all applicable provisions of state and federal laws and regulations, including the DTSC-approved Site Management Plan and Health and Safety Plan.

- 5) The Site Management Plan includes administrative controls for construction workers (including designation of regulated areas, employee training and personal hygiene practices). Controls include personal protective respiratory equipment for construction workers, air monitoring to verify the effectiveness of hazard controls and to document emissions, training of construction employees or persons who may handle or come in contact with potentially hazardous materials, and collection and analysis of surface soil samples from areas not covered with structures or a paved surface to verify the integrity of a clean soil cap.

Mitigation Measures

None required. Implementation of these regulatory requirements will ensure that any impacts that may result from future disturbance of the soil cap at this site will be mitigated to less than significant levels.

Construction-Related Hazardous Materials

Hazards 4: New construction activities pursuant to the Project could expose construction workers or Genentech employees to a significant hazard through the renovation or demolition of buildings, or relocation of underground utilities that contain hazardous materials. **(Less than Significant with Regulatory Requirements and Mitigation)**

Based on the historical industrial use of the area, it is possible that currently unknown or non-listed underground storage tanks or sites with soil and/or groundwater contaminated with petroleum hydrocarbons, metals, solvents or other industrial materials could be encountered during construction activities associated with future Project implementation. Potential contamination may include leaks from underground storage tanks and low concentrations of ammonia.¹² Naturally occurring asbestos in serpentine rock is known to be present in the central portions of the Project area, and may be present in other locations as well. It is also possible that contamination could exist in localized areas as the result of pesticide or herbicide use during routine landscape/turf maintenance practices, or in association with the removal or disturbance of older underground utilities or unidentified buried debris.

If required during construction activities, dewatering could result in the withdrawal of contaminated groundwater. If the groundwater contains contaminants above regulatory levels, the water could present a hazard to people or the environment unless properly managed.

Demolition of existing structures within the Project Area may expose construction workers, the public or the environment to hazardous materials such as lead-based paint, asbestos and PCBs. The level of potential impact is dependent upon the age, construction and building materials in each area of the building. Asbestos-containing materials that may be present at the site, if disturbed, could expose workers and the public during demolition. Any activity that involves cutting, grinding or drilling during building renovation or demolition, or relocation of underground utilities, could release friable asbestos fibers and/or lead dust, unless proper precautions are taken.

Regulatory Requirements

Potential exposure to hazardous building materials would be reduced through appropriate identification, removal and disposal according to applicable regulations.

Regulatory Requirement Hazards 4A – Discovery of Underground Storage Tanks: All known on-site storage tanks are above ground and conform to applicable federal, state and local regulations and are registered and permitted by the South San Francisco Fire Department. In the event that previously

¹² Low concentrations of ammonia were previously discovered in soil and groundwater in the Lower Campus. These contaminants were removed, and the Regional Water Quality Control Board issued a "No Further Action" letter in 2003.

unknown USTs are uncovered or disturbed, they will be properly closed in place or removed. While removal could pose health and safety risks, such as the exposure of workers and the public to tank contents or vapors, these potential risks will be reduced by managing the tank closure process according to established regulatory guidelines for investigation and closure of USTs, and for cleanup of sites contaminated by leaking USTs. These regulatory guidelines are established pursuant to the California EPA's adopted Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, as implemented at the local level by the San Mateo County Department of Environmental Health.

Regulatory Requirement Hazards 4B – Asbestos: Asbestos-containing materials are regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. Any asbestos-containing materials in structures slated for demolition must be abated in accordance with State and federal regulations, prior to the start of demolition or renovation activities.

- 1) Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.
- 2) The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work.
- 3) State regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 must be followed where there is asbestos-related work involving 100 square feet or more of asbestos-containing material. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California.
- 4) The owner of the property where abatement is to occur must have a hazardous waste generator number assigned by and registered with the DTSC. The site owner or responsible party and the transporter of the waste are required to file a hazardous waste manifest that details the transportation of the material from the site and its disposal.

Genentech has a comprehensive asbestos management program that includes regular surveys, annual notifications and signage in appropriate locations, as well as making information regarding the locations of asbestos on its campus available to all employees through the company's intranet.

Regulatory Requirement Hazards 4C – Lead-Based Paint: Both the federal OSHA and Cal-OSHA regulate worker exposure during construction activities that may disturb lead-based paint. The Interim Final Rule found in 29 CFR 1926.62 covers construction work in which employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, cleanup and routine maintenance. The OSHA-specified compliance includes respiratory protection, protective clothing, housekeeping, special high-efficiency filtered vacuums, hygiene facilities, medical surveillance and training. No minimum level of lead is specified to activate the provisions of this regulation.

Regulatory Requirement Hazards 4D- PCBs: Fluorescent lighting ballasts manufactured prior to 1978, and electrical transformers, capacitors and generators manufactured prior to 1977 may contain PCBs. In accordance with the Toxic Substances Control Act and other federal and state regulations, construction or demolition activities that may involve such materials must properly handle and dispose of electrical equipment and lighting ballasts that contain PCBs.

Regulatory Requirement Hazards 4E – Construction Dewatering: Pursuant to Section 13263 of the California Water Code, the Regional Water Quality Control Board issues Waste Discharge Requirements to

control discharges (including dewatering during construction) to land or water. Pursuant to these requirements, permits require contractors to implement best management practices during construction dewatering to avoid exposure of employees or construction workers to potentially contaminated groundwater. These BMPs may include, but are not limited to groundwater testing, containment of contaminated groundwater in storage tanks for subsequent treatment and/or disposal, and the provision of release response information. In the unlikely event that contaminated groundwater is discovered during construction activities, Genentech's contractors will follow specific procedures to reduce the risk of exposure.

Regulatory Requirement Hazards 4F – Building Demolition: Buildings demolished during construction activities could have contained biohazardous materials, including medical wastes, prior to demolition. Genentech's programs, practices and procedures, and current state testing, monitoring and disposal regulations pertaining to the management of biohazardous materials (including medical waste) will eliminate or reduce the potential for biohazardous substances to be present in fixtures or building materials removed during demolition. Genentech's radioactive materials license requires testing and implementation of decontamination and waste handling activities in accordance with applicable regulations when facilities using radioactive materials are decommissioned for purposes of renovation or demolition.

Mitigation Measures

The regulatory requirements listed above apply to all new construction activities within the Project that could expose construction workers or Genentech employees to a significant hazard from hazardous materials through the renovation or demolition of buildings, or relocation of underground utilities. However, the presence of hazardous materials at any particular location is not always known. Therefore, in addition to all regulatory requirements identified above, the following mitigation measure shall be implemented prior to initiation of ground-disturbing grading activities or construction activities associated with the Project:

Mitigation Measure Hazards 4: Site Assessment: If previously unknown contamination, underground tanks, containers or stained or odorous soils are discovered during construction activities, the construction contractor(s) shall stop work and appropriate investigation, sampling and comparison of data collected with health-based screening levels and/or consultation with a regulatory oversight agency shall be conducted to determine if the discovered materials pose a significant risk to the public or construction workers.

- a) If any such materials are discovered that exceed human health screening levels as noted in DTSC's HERO HHRA Note 3 criteria for California Human Health Screening Levels (CHHSLs) and/or Environmental Screening Levels (ESLs), a remediation plan shall be prepared and submitted to the appropriate regulatory agency in compliance with all applicable legal requirements, and to ensure the proper handling and management.
- b) Soil remediation methods may include, but are not limited to excavation and on-site treatment, excavation and off-site treatment, or disposal and/or treatment without excavation.
- c) Remediation alternatives for cleanup of contaminated groundwater could include, but are not limited to on-site treatment, extraction and off-site treatment, and/or disposal.
- d) Construction schedules may need to be modified or delayed to ensure that construction will not inhibit remediation activities and will not expose the public or construction workers to significant risks associated with hazardous conditions.

Resulting Level of Significance

Continued compliance with federal and state health and safety laws and regulations, as well as existing (or equivalent) Genentech programs, practices, and procedures, would ensure that potential exposure to known

hazardous building materials would be reduced to levels of less than significant. Individual site assessments for construction activities that may encounter currently unknown soil or groundwater contamination pursuant to the mitigation measure identified above would also ensure that potential exposure of construction workers, employees and the public are reduced to a level of less than significant.

Emissions of Hazardous Materials near a School

Hazards 5: The Project will not emit hazardous emissions nor handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school, but may handle such substances within one-quarter mile of a childcare facility. **(Less than Significant with Regulatory Requirements)**

There are no existing schools within one-quarter mile of the Project Area. The Project Area is located within an area zoned for industrial uses, only. Thus, no school can be proposed within one-quarter mile of the Project Area. However, there are three childcare facilities operating at or within one-quarter mile of the Project Area, including the Genentech-operated Cabot 2nd Generation at 342 Allerton Avenue and the 2nd Generation at 444 Allerton Avenue, as well as the private Early Years Preschool at 371 Allerton Avenue. Thus, although there are no schools within one-quarter mile, this section nevertheless analyzes the potential impact to the childcare facilities.

Pursuant to South San Francisco Municipal Code section 20.110.002, daycare or childcare centers are considered a public or semi-public use permitted within areas of the City (such as the Genentech Campus) that are zoned as Business and Technology Park (BTP). Childcare centers are required to obtain a license from the State of California Department of Social Services, provide a secure and screened outdoor play area, may only operate between the hours of 6:00 a.m. to 7:00 p.m., Monday through Friday, and must have an approved pick-up/drop-off plan. As discussed above regarding construction-related hazards, new construction activities pursuant to the Project could expose children and workers at these childcare centers to hazards associated with renovation or demolition of buildings, relocation of underground utilities that contain hazardous materials, discovery of unknown or non-listed underground storage tanks or sites with soil and/or groundwater contaminated with petroleum hydrocarbons, metals, solvents or other industrial materials. Additionally, children and childcare workers could potentially be exposed to hazards related to the routine transport, use, disposal or storage of hazardous materials.

Regulatory Requirements

During any construction activities near these childcare facilities, all regulatory requirements pertaining to known hazardous materials sites (see discussion under Impact Hazards 3, above) will apply. Additionally, all regulatory requirements pursuant to construction activities that could expose the public to a significant hazard from hazardous materials through the renovation or demolition of buildings, or relocation of underground utilities (see discussion under Impact Hazards 4, above) will also apply. Compliance with these regulations will ensure that impacts related to use or discovery of hazardous materials during construction remain less than significant.

All of the regulatory requirements listed pursuant to the routine transport, use, disposal or storage of hazardous materials (see discussion under Impact Hazards 1, above) ensure that the exposure of Genentech employees or the nearby public (including nearby childcare facilities) will be reduced to levels determined by these regulations to be less than significant. Similarly, all of the regulatory requirements listed pursuant to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (see discussion under Impact Hazards 2, above) will ensure that impacts related to accidental spills and upset involving hazardous materials remains less than significant.

Mitigation Measures

No additional mitigation is required.

Safety Hazards Related to a Public or Private Airport or Airstrip

Hazards 6: The Project is located within the Airport Land Use Plan boundaries of San Francisco International Airport (SFO), but the Project would not result in a safety hazard for people residing or working in the Project area. The Project is not located near a private airstrip. (**Less than Significant with Regulatory Compliance**)

The Project Area is entirely within the SFO Airport Influence Area (AIA) and as such, the compatibility criteria contained within the ALUCP are applicable to development within the Project Area. The *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport* (ALUCP) is used by the City/County Association of Governments of San Mateo County (C/CAG) to promote compatibility between SFO and surrounding land uses. The ALUCP compatibility criteria, as derived from the Federal Aviation Administration (FAA), are used to safeguarding the general welfare of the public. As more fully discussed in the land Use chapter of this EIR, the Project is consistent with the noise, land use safety and building height criteria of the ALUCP, and would not conflict with plans and policies intended to protect and promote airport operations safety and/or airspace protection.

Safety Zones

The ALUCP defines five safety zones within its AIA, and land use compatibility standards are established to restrict development of certain types of land uses that could pose particular hazards to the public or to vulnerable populations in case of an aircraft accident. None of the five safety zones associated with SFO apply to the Project Area, and the ALUCP's criteria for land use safety do not apply to the Project.

Airspace Protection

The ALUCP also includes plans and policies related to the compatibility of proposed land uses and airspace protection. The purposes of these policies include protecting the public health, safety and welfare by minimizing the public's exposure to potential safety hazards that could be created through the construction of tall structures. The criteria used in establishing these policies is based on the Code of Federal Regulations (CFR) 14, Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace (Part 77), which governs the FAA's review of proposed construction exceeding certain height limits, defines airspace obstruction criteria, and provides for FAA aeronautical studies of proposed construction.

- Part 77 Subpart C establishes obstruction standards for the airspace around airports including approach zones, conical zones, transitional zones and horizontal zones known as "imaginary surfaces." The FAA considers any objects that penetrate these imaginary surfaces as potential obstructions to air navigation. Obstructions may occur without compromising safe air navigation, but they must be marked, lighted and noted on aeronautical publications to ensure that pilots can see and avoid them.
- The ALUC also identifies "critical aeronautical surfaces" that protect the airspace required for multiple types of flight procedures. These critical aeronautical surfaces depict the lowest elevations from all FAA-required obstacle clearance criteria to ensure safe separation of aircraft. Any proposed structures penetrating these critical surfaces are likely to receive a Determinations of Hazard from the FAA, and these surfaces indicate the maximum height at which structures can be considered compatible with Airport operations.

Regulatory Requirement

Regulatory Requirement Hazards 6: FAA Building Height Criteria: Pursuant to the Project, the maximum heights of new buildings within the Project Area shall comply with the height regulations and restrictions as established by FAA criteria.

- 1) Pursuant to these height regulations, new buildings exceeding the FAA Part 77 “imaginary surface” height limits will be subject to FAA review and may be required to provide marking and/or lighting, or may not be found acceptable to the FAA if determined to have impacts to the safety or efficiency of operations at SFO.
- 2) No new structures will exceed heights that penetrate “critical aeronautical surfaces”.

Mitigation Measures

No mitigation measures are required. Compliance with FAA building height regulations would ensure that the Project does not result in new buildings that exceed applicable ALUCP building height limits, and thus will be protective of public health, safety and welfare by minimizing the public’s exposure to potential safety hazards that could be created through the construction of tall structures.

Impairment or Interference with an Emergency Response or Evacuation Plan

Hazards 7: Implementation of the Project could impair implementation of, or physically interfere with an adopted emergency response or emergency evacuation plan. Implementation of mitigation measures will ensure this impact remains less than significant. **(Less than Significant with Mitigation)**

As more fully discussed above, Genentech complies with all applicable federal, State and local laws and regulations, and existing Genentech programs, practices and procedures, to prevent against the risks of accidental spills or releases of hazardous materials, and the cleanup of hazardous materials in the event of an accidental release. Pursuant to the California Hazardous Materials Release Response Plans and Inventory Law of 1985, Genentech maintains and updates a Business Plan that includes details of all facilities and activities that use hazardous materials at the site, including an emergency response plan and a training program for safety and emergency response for new employees. Pursuant to Cal EPA regulations under the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, Genentech also maintains and updates a Hazardous Materials Release Response Plan that is coordinated with the San Mateo County DEH and the South San Francisco Fire Department. These Genentech plans are an integral part of, rather than an impairment of, coordinated emergency response and evacuation planning.

It is possible that construction and certain operational activities associated with the Project could potentially affect emergency response or evacuation plans due to temporary construction barricades or other roadway obstructions that could impede emergency access on-site.

Mitigation Measures

The following mitigation measures shall be implemented throughout the planning horizon of the Project:

Mitigation Measure Hazards 7A – Adequate Roadway Access: To the extent feasible, the Project applicant shall maintain at least one unobstructed lane in both directions on the site's roadways. At any time only a single lane is available, Genentech shall provide a temporary flag-person or other appropriate traffic control to allow travel in both directions. If construction activities require the complete closure of a roadway segment, Genentech shall provide appropriate signage indicating alternative routes.

Mitigation Measure Hazards 7B – Lane Closure Request: To ensure adequate access for emergency vehicles when construction projects may result in temporary lane or roadway closures, Genentech shall consult with the South San Francisco Police and Fire Departments to disclose any such temporary lane or roadway closures and to identify appropriate alternative travel routes.

Resulting Level of Significance

Continued regulatory compliance and coordinated planning between Genentech, the San Mateo County DEH and the South San Francisco Fire Department, will ensure that the Project will not impair or interfere with coordinated emergency response and evacuation planning. On-going coordination between Genentech and local agencies pursuant to the mitigation measures identified above would also ensure that roadway or travel lane closures are coordinated with emergency response personnel. This coordination will ensure that individual development projects pursuant to the Project will not impair implementation of, or physically interfere with emergency response and evacuation efforts, and the impact will be reduced to a level of less than significant.

Wildland Fires

Hazard-8: The Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. **(No Impact)**

The Project Area is a highly developed industrial area, and no wildlands are intermixed within this industrial area. The Project Area is bordered by developed industrial lands to the north, east and south, San Francisco Bay is to the east and no wildlands are adjacent to the Project area. The closest wildlands area is San Bruno Mountain County Park located approximately one mile away. The Project would not exacerbate wildfire risks of any nature, would not substantially impair and adopted emergency evacuation plan or emergency response plan, and it not located in or near a Local or State Responsibility area with a Very High Fire Hazard Severity Zone designation. The project is not susceptible to significant risk of loss, injury or death involving wildland fires.

Mitigation Measures

None required.

Cumulative Hazards Risks

The Project, when combined with other past, present, existing, approved, pending and reasonably foreseeable development in the vicinity, would not result in significant cumulative hazards. With implementation of applicable regulatory requirements, cumulative impacts related to hazards and hazardous materials would be less than significant, and the Project would not result in a cumulatively considerable contribution to a significant cumulative hazard or hazardous materials impact. Cumulative health and safety impacts could occur if off-site hazards related to the Project were to interact with, or combine with similar effect of other cumulative development within the East of 101 Area. These impacts could only occur through limited mechanisms: air emissions, transport of hazardous materials and waste, inadvertent release of hazardous materials to the sewer or non-hazardous waste landfill, and potential accidents that require hazardous materials emergency response capabilities.

Because cumulative land use in the East of 101 Area relies on the same roads to be used by the Project, the Project would contribute to a cumulative increase in the amount of hazardous materials transported to and from the area. Cumulative increases in the transportation of hazardous materials and wastes would not be significant because the probability of accidents is relatively low due to stringent regulations that apply to transport, use and storage of hazardous materials. The Project, in combination with other development in the East of 101 Area would add to cumulative traffic congestion on those roadways used for evacuation.

Traffic congestion during an evacuation is inevitable, and the roadway system in the East of 101 Area allows for multiple possible evacuation routes in the case of an emergency.

Development of the Project would contribute to a cumulative increase in the demand for emergency response capabilities. Any growth involving increased use of hazardous materials has the potential to increase the demand for emergency response capabilities. First response capabilities and hazardous materials emergency response capabilities are currently available and sufficient for all cumulative projects. Substantive hazardous materials accidents within the Project site or its vicinity are expected to be rare, and if such incidents were to occur, only one such incident would be expected at any one time (except during major catastrophes).

The Project, as well as other future development in the East of 101 Area is subject to all regulatory requirements cited above regarding use, transport and disposal of hazardous substances, which provide for the transport of hazardous materials safely to and from the entire East of 101 Area. These regulatory requirements will keep cumulative impacts related to hazards and hazardous materials at a less than significant level.