

H. Public Health and Safety

This section discusses the public health and safety considerations related to the existence of hazardous materials associated with the project site, project construction, and project operations. This section provides an overview of the regulatory setting that is applicable to health and safety at the project site and introduces Kaiser's current health and safety policies and procedures. Potential project impacts and appropriate mitigation measures or standard conditions, as necessary.

Introduction

Kaiser uses hazardous materials and generates hazardous and medical wastes in its operation and maintenance activities and during patient care procedures. Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in the State Health and Safety Code (Chapter 6.95, Section 25501[o]) 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.

A hazardous waste, for the purpose of this EIR, is any hazardous material that is abandoned, discarded, or recycled, as defined in the State Health and Safety Code (Chapter 6.95, Section 25125). The transportation, use, and disposal of hazardous materials, as well as the potential releases of hazardous materials to the environment, are closely regulated through many state and federal laws.

Medical waste is generated or produced as a result of diagnosis, treatment, or immunization of human beings or animals, the production or testing of biologicals,¹ and can be described as biohazardous waste or a sharps² waste. Cultures, blood and blood products, tissues, and body parts are all considered medical waste. The transportation and disposal of medical waste is closely regulated under Section 118215 of the California Medical Waste Management Program (CMWMP).

Setting

Kaiser Facility Hazardous Chemicals and Waste

Table IV.H-1 presents the quantities of the primary, solid, and gaseous chemicals that are currently present at the existing Kaiser facility and used in quantities greater than about two gallons of liquid or about ten pounds of solid in any year. These chemicals and other materials are

¹ The term "biologicals" means medicinal preparations made from living organisms and their products, including but not limited to, serums, vaccines, antigens and anti-toxins (CMWMP, 2000).

² The term "sharps waste" refers to any device having acute rigid corners, edges, or proturbences capable of cutting or piercing, including, but not limited to, hypodermic needles and broken glass items (such as pipettes and vials) contaminated with biohazardous waste (CMWMP, 2000).

primarily used during patient care, laboratory testing and medical diagnostics, and equipment maintenance. Other chemicals are used, but these are generally in smaller quantities. Compressed gases are listed regardless of the quantity used. Kaiser’s existing hospital facilities store and use petroleum-based fuel in underground storage tanks (USTs) and above ground storage tanks (ASTs).

Hazardous materials are currently used in Kaiser operations and as a consequence, Kaiser generates hazardous waste. Any hazardous material that is not consumed and can no longer be used is designated as a hazardous waste material. A breakdown of the current hazardous waste generation is also shown in **Table IV.H-1**.

**TABLE IV.H-1
EXISTING HAZARDOUS MATERIALS AND WASTE GENERATION
(REPORTED AUGUST 2004)**

| Chemical/Product | Estimated Average Annual Use | Estimated Annual Waste |
|-------------------------------|------------------------------|------------------------|
| Liquid Oxygen (ASTs) | 1.3M gal. | - |
| Diesel Fuel (USTs) | 7.3K gal. | - |
| Compressed Gas ^a | 9.9M cu.yds. | - |
| Liquid Chemicals ^b | 104K gal. | - |
| Motor Oil | 20K gal. | - |
| Refrigerant | 930K liquid lbs. | - |
| Waste Chemicals ^c | 6K gal. | 7.6K gal. |
| Sterile Waste ^d | - | 99.8 tons |

NOTE: Shown are primarily chemicals and materials used during patient care, laboratory testing and medical diagnostics, and equipment maintenance (hospital and medical services).

^a Includes Oxygen, Nitrous Oxide, Carbon Dioxide, Helium, Ethyne/Acetylene/Ethinc, Nitrogen, and Ethylene Oxide.

^b Includes Formaldehyde 4%, Xylene, Denatured Alcohol, and Liquid Nitrogen.

^c Includes photographic fixer solution, waste flammable liquids, waste oil, water and gasoline low BTU.

^d Sterilized biohazardous waste and sharps.

SOURCE: Kaiser Permanente OMC Hazardous Materials Business Plan and Emergency Reporting Report, 2004

Hazardous Materials Associated with Acquisition Properties

Implementation of the Kaiser Permanente OMC Master Plan would include acquisition of several adjoining properties and the subsequent demolition or renovation of several existing structures on the project site. The current uses of the acquisition properties include a grocery store, auto sales and service, a dry cleaners, medical offices, parking, and private residences. Some of these structures are decades old, and like many older buildings, may contain building materials that are considered to be hazardous to people and the environment. These materials include lead-based paint, asbestos, and polychlorinated biphenyls (PCBs).

Prior to the EPA ban in 1978, lead-based paint was commonly used on interior and exterior surfaces of buildings. Old peeling paint has been found to contaminate near surface soil and exposure to residual lead has resulted in illness in children. Asbestos is a naturally occurring

fibrous material that was extensively used as a fireproofing and insulating agent in building construction before such uses were banned by the U.S. Environmental Protection Agency (US EPA) in the 1970s. Asbestos can lead to lung disease by inhaling its tiny fibers. 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 1970's, the US EPA 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. Additional information about these materials is provided in the Regulatory Setting Section below.

Past hazardous material use at the certain acquisition properties or adjacent areas is known to have impacted local soil or groundwater. The recognized areas of soil and groundwater contamination are discussed below.

Kaiser has acquired the property at 3701-3757 Broadway, which was previously occupied by Val Strough Honda until mid 2005. Prior to Val Strough Honda, a gasoline service station operated at 3701 Broadway from approximately 1924-1988. The parcel at 3735-3757 Broadway was occupied by a car washing facility, which used USTs for fuel storage and an above-ground sump for rinsate containment. Considering the former uses of these properties, an investigation to assess the subsurface soil and groundwater conditions (referred to as a Phase II Environmental Site Assessment) was conducted on these parcels in February 2004 (SECOR, 2004c). Collection of soil, soil vapor, and groundwater samples during the Phase II investigation revealed that former site operations impacted the soil and groundwater with petroleum compounds associated with gasoline and motor oil. The concentrations of petroleum constituents indicated that soil and groundwater in some areas exceed state and federal screening levels while other areas fall below established screening levels.³ The majority of petroleum contamination exceeding screening levels was discovered near the former USTs and fuel dispensers, while high concentrations of metals were found in the soils beneath the floor of 3741 Broadway.

A preliminary site assessment report (commonly referred to as a Phase I) prepared for 3799 Broadway (Midas Muffler) reports evidence of onsite petroleum and waste storage, the possibility of PCBs, and given the age of the structure, asbestos and lead paint. (SECOR, 2004a)

A Phase II Environmental Site Assessment was similarly conducted at the MacArthur/Broadway (M/B) Center revealing evidence of subsurface contamination resulting from prior auto service and repair uses, including auto body and paint operations, as well as a service station. (SECOR, 1997).

³ The U.S. Environmental Protection Agency established Preliminary Remediation Goals (PRGs), which are tools for evaluating and cleaning up contaminated sites. They are used to streamline and standardize all stages of the risk decision-making process. PRGs are not regulatory clean-up levels. California has established Environmental Screening Levels (ESLs) to determine whether shallow soils can represent a threat to underlying groundwater. While ESLs are not regulatory clean levels, they can serve to determine the level of potential risk and need for remediation.

Other properties being acquired for the project that currently use or store hazardous materials have not yet been assessed for potential soil or groundwater impacts. These potentially hazardous materials include oil stored in USTs, suspected lead paint and asbestos in the residential apartment building at 3459 Piedmont Avenue, and potentially hazardous materials in other properties, such as the commercial buildings at 3500 to 3522 Broadway, which contains a car rental agency, barber college, and dry cleaner⁴ (SECOR, 2004b). In addition to these potential onsite sources of soil or groundwater contamination, the project site is located in close proximity to several contaminated sites not associated with the Kaiser's campus or proposed project site.

Regulatory Context

Kaiser is subject to government health and safety regulations applicable to the transportation, use, and disposal of hazardous materials and bio-medical wastes. This section provides an overview of the regulatory setting that is applicable to health and safety at the project site and introduces Kaiser's current health and safety policies and procedures.

Federal

Hazardous Materials Management

The primary federal agencies with responsibility for hazardous materials management include the US EPA, U.S. Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the U.S. Department of Transportation (DOT). Federal laws, regulations, and responsible agencies are summarized in **Table IV.H-1** and are discussed in detail in this section.

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.

⁴ Property owner indicates no cleaning operations occur onsite; no environmental assessment has been conducted to date.

**TABLE IV.H-2
FEDERAL LAWS AND REGULATIONS RELATED TO
HAZARDOUS MATERIALS MANAGEMENT**

| Classification | Law or Responsible Federal Agency | Description |
|---|--|--|
| Hazardous Materials Management | Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA)) | 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 such materials are accidentally released. |
| Hazardous Waste Handling | Resource Conservation and Recovery Act of 1976 (RCRA) | Under RCRA, the EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from "cradle to grave." |
| | Hazardous and Solid Waste Act | Amended RCRA in 1984, affirming and extending the "cradle to grave" system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes. |
| Hazardous Materials Transportation | U.S. 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 CRF). |
| | U.S. Postal Service (USPS) | USPS regulations govern the transportation of hazardous materials shipped by mail. |
| Occupational Safety | 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). |
| Radioactive Materials ^a | Atomic Energy Act | Administered by the Nuclear Regulatory Commission, the act regulates the use and control of radioactive material. ^b |
| Biosafety Standards ^c | The National Institutes of Health, and the Centers for Disease Control and Prevention (CDC) | Operated under the U.S. Department of Health and Human Services, these agencies establish standards for working with biohazardous materials. |
| Structural and Building Components (Lead-based paint, PCBs, and asbestos) | 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. |
| | U.S. EPA | The EPA monitors and regulates hazardous materials used structural and building components and affects on human health. |

^a U.S. Nuclear Regulatory Commission, Atomic Energy Act of 1954, as amended, <http://www.nrc.gov/who-we-are/governing-laws.html>, accessed November 15, 2002.

^b Radioactive material is any material or combination of materials that spontaneously emit ionizing radiation.

^c A hazardous biologic material is any potentially harmful biologic material (including infectious agents, oncogenic viruses, and recombinant DNA) or any material contaminated with a potentially harmful biologic material.

SOURCE: Environmental Science Associates, 2005

State

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

plan 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 (Cal EPA, 2002). In Oakland, the Oakland Fire Department is the designated CUPA for all businesses.

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 safety and emergency response training program for new employees with annual refresher courses

Hazardous Waste Handling

The Cal EPA Department of Toxic Substances Control (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), whose responsibilities are described in **Table IV.H-2**, 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). In addition, the State of California regulates the transportation of hazardous waste originating in the state and passing through the state (26 CCR). Both regulatory programs apply in California. 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).

Medical Waste

Within the regulatory framework of the Medical Waste Management Act, the Medical Waste Management Program of the California Department of Health Services (CDHS) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste offsite treatment facilities and transfer stations throughout the state. The CDHS also oversees all medical waste transporters. The Medical Waste Management Program provides support and oversight to the ACDEH, which enforces the Medical Waste Management Act locally.

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 Code of Federal Regulations (CFR). Cal/OSHA standards are generally more stringent than federal regulations.

Cal/OSHA regulations (8 CCR) 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 plan preparation. Cal/OSHA enforces hazard communication program regulations, 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 (MSDSs) 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).

State laws, like federal laws, include special provisions for hazard communication to employees in research laboratories, including training in chemical work practices. Specific, more detailed training and monitoring is required for the use of carcinogens, ethylene oxide, lead, asbestos, and certain other chemicals listed in 29 CFR. Emergency equipment and supplies, such as fire extinguishers, safety showers, and eye washes, must also be provided and maintained in accessible places.

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.

Radioactive Materials

Pursuant to the federal Atomic Energy Act requiring states to assume responsibility for the use, transportation, and disposal of low-level radioactive material and for the protection of the public from radiation hazards, the Radiological Health Branch (RHB) of the CDHS administers the

state's Radiation Control Law, which governs the storage, use, transportation, and disposal of sources of ionizing radiation (radioactive material and radiation-producing equipment). Radioactive material regulations require registration of sources of ionizing radiation, licensing of radioactive material, and protection against radiation exposure. The RHB also regulates the transportation of radioactive materials and disposal of radioactive waste. Users of radioactive materials must maintain detailed records regarding the receipt, storage, transfer, and disposal of such materials (RHB, 2005). State regulations concerning radioactive substances are included in 17 CCR. The regulations specify appropriate use and disposal methods for radioactive substances, as well as worker safety precautions and worker health monitoring programs. Kaiser does not produce radioactive materials or waste but does use and transport such materials.

Biosafety Standards

Similar to federal laws, state laws establish standards for working with biohazardous (infectious) materials and wastes. A hazardous biologic material is any potentially harmful biologic material (including infectious agents, oncogenic viruses, and recombinant DNA) or any material contaminated with a potentially harmful biologic material. The National Institutes of Health (NIH), and the Centers for Disease Control and Prevention (CDC) operate under the U.S. Department of Health and Human Services and establish standards for working with biohazardous materials. Kaiser handles wastes that are considered biological hazards.

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, the Department of Fish and Game, the San Francisco Bay Regional Water Quality Control Board, the Oakland Fire Department. The Oakland Fire Department provides first response capabilities, if needed, for hazardous materials emergencies within the project area.

Structural and Building Components

Implementation of the project would include demolition of structures which, due to their age, may contain asbestos, polychlorinated biphenyls (PCBs), or lead and lead-based paint. In addition, removal of existing aboveground or underground storage tanks may be required.

Asbestos

State laws and 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 Bay Area Air Management District (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 asbestos removal to ensure the health and safety of workers removing asbestos containing materials and also must be notified of asbestos abatement activities.

Polychlorinated Biphenyls (PCBs)

As previously discussed, 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 U.S. EPA 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 California Code of Regulations, Title 22, considers waste soil with concentrations of lead to be hazardous if it exceeds a total concentration of 1,000 parts per million (ppm) and a soluble⁵ 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.

Aboveground and Underground Storage Tanks

The State Regional Water Quality Control Board (SWRCB) administers the AST Program. Facilities that store petroleum in a single tank greater than 1,320 gallons or facilities that store petroleum in ASTs or containers with a cumulative storage capacity of greater than 1,320 gallons are subject to SWRCB regulations. The AST Program requires that the owners or operators file a storage statement, pay a facility fee, and prepare and implement a federal Spill Prevention Control and Countermeasure (SPCC) Plan. The SPCC Plan must discuss the procedures, methods, and equipment in place at the facility to prevent discharges of petroleum from reaching navigable waters. AST oversight is provided by the Oakland Fire Department.

State laws governing USTs specify requirements for permitting, construction, installation, leak detection monitoring, repairs, release monitoring, corrective actions, cleanup, and closure. ACDEH and the Oakland Fire Department are the local agencies designated to permit and inspect USTs and to implement applicable regulations.

⁵ Capable of being dissolved, especially in water.

California Office of Statewide Health Planning and Development

The Office of Statewide Health Planning and Development (OSHPD) is a department of the California Health and Human Services Agency. OSHPD serves as the regulatory building agency for all hospitals and nursing homes in California. Its primary goal in this regard is to ensure that patients in these facilities are safe in the event of an earthquake or other disaster, and to ensure that the facilities remain functional after such an event in order to meet the needs of the community affected by the disaster. Refer to Section IV.F, Geology, Soils, and Seismic Safety, for more information regarding the OSHPD.

Local

Soil and Groundwater Contamination

In Alameda County, remediation of contaminated sites is performed under the oversight of the ACDEH and the SFBRWQCB. The ACDEH implements a local oversight program under contract with the SWRCB to provide regulatory oversight of the investigation and cleanup of soil and groundwater contamination from leaking petroleum USTs and ASTs. At sites where contamination is suspected or known to have occurred, the project sponsor is required to perform a site investigation and prepare a remediation plan, if necessary. For typical development projects, actual site remediation is completed either before or during the construction phase of the project. Site remediation or development may be subject to regulation by other agencies. As noted above, several properties slated for acquisition have contaminated soil and groundwater which is currently subject to oversight by ACDEH. Future investigation and remediation of soil or groundwater contamination that is known, or has not yet been identified, would be subject to oversight by ACDEH.

Alameda County Hazardous Waste Management Program

Assembly Bill (AB) 2948 requires counties and cities either to adopt a county hazardous waste management plan as part of their general plan, or enact an ordinance requiring that all applicable zoning subdivision, conditional use permit, and variance decisions be consistent with the county hazardous waste management plan. Once each County had its Hazardous Waste Management Program approved by the State, each city had 180 days to either 1) adopt a City Hazardous Waste Management Plan containing specified elements consistent with the approved County Hazardous Waste Management Plan, 2) incorporate the applicable portions of the approved Plan, by reference, into the City's General Plan, or 3) enact an ordinance which requires that all applicable zoning, subdivision, conditional use permits, and variance decisions be consistent with the specified portions of the plan. Alameda County has adopted a Hazardous Waste Management Program that addresses procedures for hazardous materials incidents and the City of Oakland has adopted the applicable portions of the County program.

Under the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, the Oakland Fire Department is certified by the DTSC to implement the following programs:

- Hazardous materials management plan and inventory (HMMP) and the hazardous materials business plan (HMBP)

- Risk management program (RMP)
- Underground storage tank (UST) program
- Spill prevention, control and countermeasure plan (SPCC) for ASTs
- Hazardous waste generators
- On-site hazardous waste treatment (Tiered Permit).

Submittal of updated HMMP and HMBP to the Oakland Fire Department in accordance with changes to hazardous materials storage and disposal locations and volumes in association with implementation of the project and future operation of Kaiser would be required. Potential removal or installation of USTs or ASTs under the project would also be subject to oversight by Oakland Fire Department.

Kaiser Permanente Hospital Safety Program

Environmental Health & Safety Program

Kaiser Permanente OMC currently implements the Environmental Health and Safety Hazardous Materials and Waste Management Program, which was reviewed and revised in August 2004 (Kaiser, 2004). The purpose of the program is identify, and whenever feasible, reduce the types and quantity of hazardous materials and wastes, and to recognize and reduce risks associated with their storage, handling, use, and disposal within Kaiser OMC facility.

The Program specifies levels of responsibility within Kaiser management for the following actions:

- Developing specific departmental policies and procedures for managing hazardous materials and wastes from the point of entry into the Kaiser facility to the point of final disposition;
- ensuring accurate inventory and documentation of hazardous materials used and generated and employee exposure to such materials;
- Ensuring staff awareness of applicable policies and procedures;
- Ensuring the annual review of hazardous materials use and disposal, with the intent of decreasing volumes and risks;
- Ensuring that wastes generated are stored, packaged, labeled, handled, and disposed of in accordance with all applicable laws and regulations; and
- Assuring completeness and compliance of all policies and procedures with applicable laws, ordinances, and standards.

The program also outlines Emergency Action Plan procedures (immediate action, clean-up, reporting), Waste Disposal procedures, Record Keeping/Documentation procedures, and Program Evaluation procedures.

Hazardous Materials Business Plan and Emergency Reporting

Kaiser Permanente OMC holds a Unified Program Consolidated Permit issued by ACDEH, the designated CUPA for Oakland. As required by the Business Plan Act, Kaiser has prepared a Hazardous Materials Business Plan that includes an Emergency Response Plan/Contingency Plan, an Emergency Response Employee Training Program, Emergency Evacuation Plans of all Kaiser facilities, and a hazardous materials and waste inventory.

Impacts and Mitigation Measures

Medical and administrative activities at the proposed project site would use hazardous chemicals common in medical care, office and support settings. These chemicals would include familiar materials, such as toners, paints, lubricants, kitchen and restroom cleaners, and other maintenance materials as well as chemicals used during patient care, laboratory testing and medical diagnostics. These common consumer products would be used for the same purposes as in any office or support setting, including residences. A medical facility cannot reasonably be expected to predict in advance every possible chemical or combination of chemicals it might conceivably use. However, estimated hazardous material use, storage, and disposal that would result from the project are provided in the discussion that follows. These estimates represent projected use based on Kaiser's current operations.

Significance Criteria

A project would generally be considered to have a significant adverse impact on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- 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, create a significant hazard to the public or the environment.
- Result in a safety hazard for people residing or working in the project area for a project within the vicinity of a private airstrip.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Local Plans and Policies

Oakland General Plan policies and other applicable plans and policies that pertain to public health and safety with regard to hazardous materials and related effects, and that apply to the project, are identified and discussed in Section IV.A, Land Use, Plans, and Policies. General Plan policies that are also significance criteria or contain a regulatory threshold which the project must meet are addressed in this section.

Public Health and Safety Impacts

Construction-Related Impacts

Impact H.1: Demolition or renovation of existing structures that contain hazardous building materials, such as lead-based paint, asbestos, and PCBs could expose workers, the public, or the environment to these hazardous materials and would generate hazardous waste. (Potentially Significant)

Demolition or renovation of existing structures on the project site 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 building. A survey to determine the potential presence of these substances in buildings slated for demolition or renovation has not yet been completed. This potential hazards associated with these substances results in a potentially significant impact associated with the project.

As would be required for all projects involving the demolition of existing structures, the project is required to comply with the following uniformly-applied standard conditions of approval of the City, which would reduce Impact H.1 to a less-than-significant level:

Standard Condition H.1a: Future demolition or renovation activities shall require an assessment for the potential presence of lead-based paint or coatings, asbestos, or PCB-containing equipment be prepared prior to commencing these activities.

In accordance with California laws regulating the management and disposal of hazardous building materials, Kaiser shall determine the potential presence and extent of lead-based paint, asbestos, or PCBs in existing structures prior to initiation of demolition or renovation activities. Based on the results of the pre-demolition surveys, the following standard conditions shall be implemented for the identified structures.

Standard Condition H.1b: If the assessment required by Standard Condition H.1a finds presence of lead-based paint, asbestos, and/or PCBs, the project sponsor shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition or renovation of affected structures.

Standard Condition H.1c: If the assessment required by Standard Condition H.1a finds presence of lead-based paint, the project sponsor shall develop and implement a lead-based paint removal plan. The plan shall specify, but not be limited to, the following elements for implementation:

- **Develop a removal specification approved by a Certified Lead Project Designer.**
- **Ensure that all removal workers are properly trained.**
- **Contain all work areas to prohibit off-site migration of paint chip debris.**
- **Remove all peeling and stratified lead-based paint on building and non-building surfaces to the degree necessary to safely and properly complete demolition activities according to recommendations of the survey. The demolition contractor shall be responsible for the proper containment and disposal of intact lead-based paint on all equipment to be cut and/or removed during the demolition.**
- **Provide on-site personnel and area air monitoring during all removal activities to ensure that workers and the environment are adequately protected by the control measures used.**
- **Clean up and/or vacuum paint chips with a high efficiency particulate air (HEPA) filter.**
- **Collect, segregate, and profile waste for disposal determination.**
- **Properly dispose of all waste.**

Both the federal OSHA and Cal-OSHA regulate worker exposure during construction activities that 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.

Standard Condition H.1d: If the assessment required by Standard Condition H.1a finds presence of asbestos, the project sponsor shall ensure that asbestos abatement shall be conducted prior to building demolition or renovation.

Exposure to asbestos, and the resulting adverse health effects, is possible throughout the demolition and renovation phases if materials that contain asbestos are present. As previously discussed, asbestos is likely to be present in some structures slated for acquisition, as well as existing Kaiser facilities. In structures slated for demolition or renovation under the project, any asbestos-containing materials would be abated in accordance with state and federal regulations prior to the start of demolition or renovation activities.

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. 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.

Notification includes the names and addresses of operations and persons responsible; description and location of the structure to be demolished/alterd including size, age, and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet Bay Area Air Quality Management District (BAAQMD) requirements; and the name and location of the waste disposal site to be used. The BAAQMD randomly inspects asbestos removal operations and will inspect any removal operation about which a complaint has been received.

Asbestos abatement contractors must follow state regulations contained in 8 CCR 1529 and 8 CCR 341.6 through 341.14 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. The owner of the property where abatement is to occur must have a hazardous waste generator number assigned by and registered with the DTSC in Sacramento. Kaiser 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.

Compliance with these regulations and procedures would ensure that any potential impacts due to asbestos are less-than-significant.

Standard Condition H.1e: If the assessment required by Standard Condition H.1a finds presence of PCBs, the project sponsor shall ensure that PCB abatement shall be conducted prior to building demolition or renovation.

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, Kaiser would be required to properly handle and dispose of electrical equipment and lighting ballasts that contain PCBs, reducing potential impacts to a less-than-significant level.

Significance after Implementation of Standard Conditions: Less than Significant

Impact H.2: Implementation of the project would disturb soil and groundwater impacted by historic hazardous material use, which could expose construction workers, the public, or the environment to adverse conditions related to hazardous materials handling. (Potentially Significant)

As discussed above, the proposed project would include the acquisition of properties that are known to, or may have, impacted soil or groundwater from historic hazardous material use. Construction activities would include demolition of existing buildings and subsequent excavation and trenching could potentially intercept and disturb impacted soil and/or groundwater.

The project would involve excavation for installation of building substructures and subgrade utilities and would involve grading that could be substantial in certain areas. Soil disturbance during construction could disperse existing contamination into the environment and expose construction workers and the public to contaminants. Significant undetected levels of contamination in soils could result in various short-term health effects such as nausea, vomiting, headache, dizziness, or burns.

Based on the confirmed and not-yet-confirmed environmental site conditions reported in the Phase I and Phase II documents available for this EIR assessment (cited throughout), the presence of residual contaminants pose an environmental risk and potential health risk during construction and to future occupants of project buildings. This would result in a potentially significant impact.

As would be required for all development projects that would disturb soil and groundwater impacted by hazardous materials use, the project is required to comply with the following uniformly-applied standard conditions of approval of the City, which would reduce Impact H.2 to a less-than-significant level:

Standard Condition H.2a: The project applicant shall ensure that environmental assessment and remediation would either be performed under the oversight of the ACDEH or other agencies, (e.g. RWQCB and DTSC) or be conducted by qualified professionals with experience in soil and groundwater contamination remediation. In cases where regulatory involvement is not necessary, soil and groundwater removal and disposal would still occur to mitigate the potential hazards that could result from removal of soil and/or groundwater during construction.

Standard Condition H.2b: To reduce environmental risks associated with encountering contaminated soil that is discovered during grading and construction, the project applicant shall ensure that impacted soil is handled in accordance with Kaiser's Soil Management Plan, which shall be prepared to outline required procedures for handling and disposing impacted soil. All disposal and transportation of contaminated soil shall be done in accordance with state and federal agencies and under federal (RCRA) and state laws. All contaminated soil determined to be hazardous or non-hazardous waste must be adequately profiled for acceptable disposal before it can be removed from the site.

Standard Condition H.2c: Groundwater pumped from the subsurface would be contained onsite prior to treatment and disposal to ensure environmental and health issues are resolved pursuant to oversight agencies (Refer to Impact G.2). Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.

Standard Conditions G.1a and G.1b (NPDES and grading permit compliance and Creek Protection Permit compliance), and Standard Condition G.1a (Temporary Bypass Culvert) address potentially significant construction-related impacts to water quality. These conditions and mitigations require compliance with all City of Oakland permitting requirements and practices and all RWQCB permit requirements and regulations that would (among other benefits) reduce impacts to water quality that result from erosion of contaminated soils or groundwater discharge. (See Section IV.G, Hydrology and Water Quality, in this EIR.)

Mitigation after Implementation of Standard Conditions: Less than Significant

Hazardous Materials Use, Storage, and Disposal

Impact H.3: The project would involve the transportation, use, and storage of hazardous chemicals, which could present increased public health and/or safety risks to Kaiser workers, patients and visitors, and the surrounding area. (Less than Significant)

Activities at Kaiser are expected to continue to involve a wide range of chemical compounds and products. Among these would be a substantial number of hazardous materials and some extremely hazardous materials. Exposure to hazardous chemicals could cause acute or chronic health effects to workers and visitors.

The project would continue to implement the regulatory guidelines and procedures that are currently in use at Kaiser. At the proposed project site, areas where hazardous chemicals would be stored regularly would be equipped with proper ventilation and secondary containment. Most of the flammable materials stored indoors would be kept in fire safety cabinets when not in use.

Handling and use of these hazardous materials and the disposal of the resulting hazardous wastes would be required to follow the applicable laws and regulations, as described in *Regulatory Setting* above. The net result of good compliance would be the reduction of risks and hazards to workers, the public, and the environment to levels that are considered acceptable, for all hazardous materials proposed for use on the project site.

Hazardous materials would typically be stored in their original containers prior to use. As required, the hazardous materials would be stored in each building, in locations according to compatibility and in storage enclosures (i.e., flammable material storage cabinets and biological safety cabinets) or in areas or rooms specially designed, protected, and contained for such storage, in accordance with applicable regulations. Hazardous materials would be handled and used in accordance with applicable regulations by personnel that have been trained in the handling and use of the material and that have received proper hazard-communication training. Hazardous materials reporting (i.e., California Hazardous Materials Business Planning, California Proposition 65 notification, and Emergency Planning and Community-Right-to-Know Act reporting) would be completed as required.

Hazardous Materials

Any hazardous material that is not consumed and can no longer be used would be designated as a hazardous waste material. While the actual generation of hazardous materials as a result of the project would be dependent upon actual operations, the project is not projected to increase the per employee rate of hazardous materials waste generated from the site. Therefore, the projected increase in hazardous materials waste volume from existing conditions would be comparable to the projected 44 percent increase in the peak number of Kaiser employees (after Phase 3)⁶. The proportions of hazardous materials used are not expected to change from existing conditions as a result of the project.

On Site 7 (Phase 1), a small above ground "day tank" (approximately 400 gallons) would be required for the emergency generator for the proposed West Broadway MSB. The mechanical facilities associated with the Replacement Hospital and central utility plant would include fuel oil storage and sewage storage tanks onsite, similar to the existing hospital, for a total of approximately 12 UST. On Site 2 (Phase 3), existing USTs located near the existing hospital loading dock (along Broadway) would be removed and replaced in a new location to accommodate development of the Central Administration MSB, however, no new tanks would be required for the Phase 2 development on Site 2. The new or relocated AST or UST facilities on the project site would not pose increased risk compared to the existing conditions, particularly with continued implementation of regulatory guidelines and procedures currently in place. Current federal and state regulations for installation and operation of above and below ground fuel storage tanks require leak prevention and detection devices such as leak monitoring, secondary containment, and inventory controls. Because of the current laws regulating fuel storage tanks, the potential is low for inadvertent fuel releases to occur that could cause temporary safety hazards or significant adverse impacts to the environment.

Biohazardous Wastes and Sterile Waste

Various types of biological waste materials would be used at the project site and Kaiser employees would continue to be appropriately trained to work with (i.e., handle and dispose of) these biological materials. The use of biohazardous waste materials at the project site could include cultures, blood and blood products, and tissues.

Liquid biohazardous waste would continue to be disinfected on the benchtop and disposed of in the sanitary sewer system in accordance with local wastewater discharge regulations. This waste may vary, but typically, could consist of absorbents, tissue cultures, and cell plates potentially contaminated with infectious agents. This waste would typically be collected in plastic biohazard waste bags and pails and then autoclaved onsite. When sterilized, the autoclaved waste would then be discarded into the regular facility trash as non-hazardous waste. Consistent with the

⁶ Peak employment from the proposed project would increase about 44 percent. Peak employment is a conservative measure as it includes the number of physicians, non-physician providers, e.g., nurse practitioners, physician assistants, psychologists, social workers, and their support staff. Also, total solid waste is similarly projected to increase by 35 percent by 2017 (based on 0.3 tons per full time employees [FTE]), as discussed in Section IV.M, Utilities, Services Systems, and Energy, of this EIR.

estimated increase in hazardous waste, the volume of biohazardous waste (including sterile waste, e.g., sharps, etc.) is conservatively projected to increase by approximately 35 percent at full operation. This increase is comparable to the total increase in total solid waste projected at Phase 3 buildout (see Section IV.M, Utilities, Service Systems, and Energy, in this EIR).

Potentially infectious sharps, including razor blades, syringes, and needles would also be collected in plastic biohazard containers. These materials would be collected and autoclaved daily. Non-infectious sharps would be collected from chemistry laboratories also. All sharps, once noninfectious, would then be shredded onsite so that the material is rendered unrecognizable and then consolidated into the general trash waste stream.

Hazardous Materials and Hazardous Waste Transport

All hazardous materials would be transported to the site in accordance with applicable hazardous materials shipping regulations. Chemical and biohazardous waste and radioactive materials, and other packages for laboratories would be delivered to the materials management department, which manages incoming shipments and distribution within Kaiser. Chemical and biohazardous waste would be picked up on a regular basis (typically at least every six weeks) and transported by a properly licensed commercial waste transporter and disposed of or recycled at a properly licensed and permitted off-site disposal and/or recycling facility.

Required compliance with applicable regulatory requirements would minimize hazards to workers, visitors, the public, and the environment from waste products.

Mitigation: None required.

Impact H.4: Hazardous materials used onsite during construction activities (i.e. solvents) could be spilled through improper handling or storage, potentially increasing public health and/or safety risks to Kaiser workers, patients and visitors, and the surrounding area. (Less than Significant)

Construction activities would require the use of certain hazardous materials such as fuels, oils, solvents, and glues. Inadvertent release of large quantities of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. The use of construction best management practices typically implemented as part of construction would minimize the potential adverse effects to groundwater and soils. These could include the following:

- Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction;
- Avoid overtopping construction equipment fuel gas tanks;
- During routine maintenance of construction equipment, properly contain and remove grease and oils.

- Properly dispose of discarded containers of fuels and other chemicals.

Construction projects, such as the one that would be undertaken for the proposed project, would require certain hazardous materials (fuels, adhesives, solvents), that, if improperly used and inadvertently released, could result in a temporary hazard to workers, the public, or the environment. However, the hazardous materials typically used on a construction site are brought onto the site packaged in consumer quantities and used in accordance with manufacturer recommendations. The overall quantities of these materials on the site at one time does not result in large bulk amounts that, if spilled, could cause a significant soil or groundwater contamination issue. Spills of hazardous materials on construction sites are typically localized and are cleaned up in a timely manner. In most cases, the individual construction contractors are responsible for their hazardous materials and are required under their contract with Kaiser to properly store and dispose of these materials in compliance with state and federal laws. Given the quantities of hazardous materials typically needed for large construction projects and the use of best management practices by the individual construction contractors, the threat of exposure to the public or contamination to soil and groundwater from construction-related hazardous materials is considered a less than significant impact.

Mitigation: None required.

Impact H.5: The proposed project could increase the volume of hazardous materials and hazardous waste at Kaiser, subsequently increasing the risk of spillage and/or accidental release of hazardous substances. (Less than Significant)

The proposed project would increase the risk of spillage and/or accidental release of hazardous substances due to an overall increase in materials that would be used onsite. Several plans are in place to address these issues: the California Office of Emergency Services administers the California Emergency Response Plan, which coordinates emergency services provided by federal, state, and local governmental agencies and private persons; response to hazardous materials releases is one part of this plan. As required under the Hazardous Materials Release Response Inventory Law of 1985, the project sponsor currently maintains and would update as appropriate, a Hazardous Material Business Plan. Compliance with applicable regulations would ensure protection against hazardous materials spillage and effective containment and cleanup facilities and procedures for accidental spills. The project sponsor would be required to comply with all federal and state laws regulating hazardous materials. Therefore, impacts associated with the release of hazardous materials would be considered less than significant.

Mitigation: None required.

Cumulative Impacts

Impact H.6: Hazards at the project site could contribute to cumulative hazards in the vicinity of the project site. (Less than Significant)

Cumulative health and safety effects could occur if activities at the project site and other existing and proposed development, together, could increase risks in the neighborhood. However, most routine hazardous materials activities at the project site would be located indoors. Any indoor health or safety effects of routine hazardous materials use would be limited to the specific individuals using the materials and anyone in the immediate vicinity of the use. No interaction would occur between these routine activities and similar activities at different sites.

Cumulative health and safety impacts could occur if project-related outdoor or offsite hazards were to interact or combine with those of other existing and proposed development. This could occur through limited mechanisms: air emissions, transport of hazardous materials and waste to or from the project site, inadvertent release of hazardous materials to the sewer or non-hazardous waste landfill, and potential accidents that require hazardous materials emergency response capabilities. Air emissions are addressed in Section IV.C, Air Quality. The other mechanisms for cumulative offsite effects are discussed below.

Because offsite hazardous materials shipments to and from the proposed project could involve the same roads used by other existing and future development in the area, the project, together with this foreseeable development, could contribute to cumulative increases in the amount of hazardous material transported to and from the project site and the surrounding community. Hazardous materials are transported by common carriers, such as United Parcel Service and Federal Express, which would often ship small containers of hazardous materials for delivery along their routes whether or not the project is approved. Cumulative increases in the transportation of hazardous materials and wastes would cause a less than significant impact because the probability of such accidents is relatively low, and the use of legally required packaging minimizes the consequences of potential accidents.

The proposed project would contribute to cumulative increases in the demand for hazardous materials emergency response capabilities in Oakland. Any growth involving increased hazardous materials use has the potential to increase the demand for emergency response capabilities in the area. However, first response capabilities and hazardous materials emergency response capabilities are currently available and sufficient for all existing cumulative projects (and are projected to be available and sufficient for foreseeable projects). Furthermore, substantive hazardous materials accidents at the project site or vicinity are expected to be rare, and when such incidents would occur, only one such incident would be expected at any one time (except during major catastrophes, such as major earthquakes, as discussed in Section IV.F, Geology, Soils and Seismic Safety). Due to the controls in place at the site, no offsite effects would be expected. Furthermore, additional hazardous materials response services could be available through other jurisdictions, and private hazardous materials emergency response agencies could be used. Therefore, this cumulative impact would be less than significant.

Mitigation: None required.

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