Section 3.8
Hazards and Hazardous Materials

SECTION SUMMARY

This section characterizes the existing hazards and hazardous materials within the proposed Project area and assesses how the construction and operation of the proposed Project and alternatives would alter them. This evaluation analyzes the effects of the proposed Project and alternatives on increasing the risk probability and criticality of hazardous spills or releases, risk of upset due to terrorism, and potential impact of increased truck traffic on regional injury and fatality rates. The primary features of the proposed Project and alternatives that could contribute to increased risks include the expansion-area components, including: the 41-acre and 9-acre backland areas; the new wharf to create Berth 306; expansion of the existing Power Shop and Marine Office Facilities; demolition and reconstruction of the Roadability structure; and the modification of existing and development of new entrance/exit gates.

Section 3.8 Hazards and Hazardous Materials, provides the following:

- A description of existing environmental setting in the Port area;
- A description of the existing hazards and hazardous materials stored at the proposed Project site;
- A list of historic container-related hazardous spills within the Port Complex;
- A list of liquid bulk facilities within close proximity to the proposed Project site;
- A description of applicable local, state, and federal regulations and policies regarding hazardous materials or hazardous substances that may require special handling if encountered during construction of the proposed Project or an alternative;
- A discussion on the methodology used to determine whether the proposed Project or alternatives would adversely change the existing physical conditions or increase the probability of hazardous spills or releases;
- An impact analysis of the proposed Project and alternatives; and,
- A description of any mitigation measures proposed to reduce any potential impacts, as applicable.

Key Points of Section 3.8:

The proposed Project would expand an existing container terminal, and its operations would be consistent with other uses and container terminals in the Project area.

Neither the proposed Project nor any of the alternatives would result in a significant impact to hazards and hazardous materials under either CEQA or NEPA, as specified below:
The proposed Project and alternatives would not significantly increase the risks associated with increased probability and criticality of hazardous spills or releases.

The proposed Project and alternatives would not increase the risk or frequency of potential acts of terrorism.

The proposed Project and Alternatives 4, 5, and 6 would increase the throughput (TEUs) and associated truck-related traffic; however, the increase is not expected to significantly increase the risk of regional injury and fatality rates.
3.8.1 Introduction

This section addresses the potential impacts of hazards and hazardous materials related to the proposed Project and alternatives, and potential impacts of Project/alternative-related releases of hazardous materials to the environment. This section also describes impacts on public health and safety that could result from the proposed Project or an alternative. These potential impacts include fires, explosions, and releases of hazardous materials associated with construction and operation of the proposed/alternative facilities. This section also addresses potential effects of the release of hazardous materials associated with tsunami-induced flooding and other seismic events. The potential risks of inundation associated with tsunami-related flooding are discussed in Section 3.5, Geology.

Potential health and safety impacts associated with encountering contaminated soil and groundwater during construction are discussed in Section 3.7, Groundwater and Soils.

3.8.2 Environmental Setting

3.8.2.1 Hazardous Materials

Hazardous materials are the raw materials for a product or process that may be classified as toxic, flammable, corrosive, or reactive. Classes of hazardous materials that may be transported at the Port include:

- Corrosive materials - solids, liquids, or gases that can damage living material or cause fire.
- Explosive materials - any compound that is classified by the National Fire Protection Association (NFPA) as A, B, or C explosives.
- Oxidizing materials - any element or compound that yields oxygen or reacts when subjected to water, heat, or fire conditions.
- Toxic materials - gases, liquids, or solids that may create a hazard to life or health by ingestion, inhalation, or absorption through the skin.
- Unstable materials - those materials that react from heat, shock, friction, and contamination, and are capable of violent decomposition or autoreaction, but which are not designed primarily as an explosive.
- Radioactive materials - those materials that undergo spontaneous emission of radiation from decaying atomic nuclei.
- Water-reactive materials - those materials that react violently or dangerously upon exposure to water or moisture.

Hazardous materials that are transported in containers are stored in individual containers specifically manufactured for storing and transporting the material. In addition, shipping companies prepare, package, and label hazardous materials shipments in accordance with federal requirements (49 CFR Parts 170-179) to facilitate surface transport of the containers. All hazardous materials in containers are required to be properly manifested. Hazardous material manifests for inbound containerized hazardous materials are
reviewed and approved by the Port Security and the City Fire Department before they can be unloaded.

The LAHD estimates that the Port, as a whole, handled approximately 265,039 containers in 2009 that contained hazardous materials (PIERS, 2010). This is the approximate capacity of 58 container ships. Based on the annual Port-wide container volume of 7.26 million TEUs for fiscal year (FY) 2009, hazardous materials in containers represents approximately 3.65 percent of the total containers handled in the Port during FY 2009 (July 1 – June 30).

Containers containing hazardous materials are transported from the terminal via truck and while in the Port, they are only handled by authorized workers. The Transportation Worker Identification Credential (TWIC) program is a Transportation Security Administration (TSA) and United States Coast Guard (USCG) initiative to provide a tamper-resistant biometric security credential to: maritime workers who require unescorted access to secure areas of Port facilities and vessels regulated under the Maritime Transportation Security Act, or MTSA; and all USCG-credentialed merchant mariners. To obtain a TWIC, an individual must provide biographic and biometric information such as fingerprints, sit for a digital photograph, and successfully pass a security threat assessment conducted by TSA. The TWIC program reduces the potential for unauthorized handling of containers that contain hazardous materials.

As indicated by the National Response Center’s (NRC) 2006-2010 data, there have been several minor releases of hazardous materials from containers or other sources within the Port.¹ No deaths have resulted from releases of hazardous materials at the Port, and no injuries associated with accidental releases of hazardous materials have been reported at hazardous liquid bulk storage facilities closest to the proposed Project site, which are those in the Main Channel or Turning Basin areas as identified further in this section.

The California Office of Emergency Services (OES) maintains the Response Information Management System (RIMS) database that includes detailed information on all reported hazardous material spills in California, and corresponds to the NRC data. All spills that occur in the Port, both hazardous and non-hazardous, are reported to the OES and entered into the RIMS database. This database includes spills that may not result in a risk to the public, but could be considered to be an environmental hazard. Information in the RIMS database was evaluated for the period 2006-2009 to evaluate the types and number of spills that have occurred at the Ports of Los Angeles and Long Beach that would be associated with container terminals. Table 3.8-2 is a list of hazardous materials stored at the existing APL Terminal.

¹ The NRC is the federal government’s national communications center, which is staffed 24 hours a day by USCG officers and marine science technicians. The NRC is the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the U.S. and its territories. The NRC’s spill data for 1982 through 2010 are available at: http://www.nrc.uscg.mil/download.html
Table 3.8-1: Container-Related Spills at Ports of Los Angeles and Long Beach 2006-2009

<table>
<thead>
<tr>
<th>Spill Control Number</th>
<th>Date</th>
<th>Port</th>
<th>Substance</th>
<th>Injuries</th>
<th>Fatalities</th>
<th>Evacuations</th>
</tr>
</thead>
<tbody>
<tr>
<td>06-0430</td>
<td>1/18/2006</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<tr>
<td>06-0518</td>
<td>1/23/2006</td>
<td>POLA</td>
<td>Petroleum</td>
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<td>0</td>
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<tr>
<td>06-0623</td>
<td>1/28/2006</td>
<td>POLA</td>
<td>Petroleum</td>
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<td>5/20/2006</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>06-4008</td>
<td>7/7/2006</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>06-4324</td>
<td>7/22/2006</td>
<td>POLA</td>
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<td>0</td>
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<tr>
<td>06-7102</td>
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<td>0</td>
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<tr>
<td>06-7666</td>
<td>12/29/2006</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>07-0339</td>
<td>1/16/2007</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>07-0369</td>
<td>1/17/2007</td>
<td>POLA</td>
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<td>0</td>
</tr>
<tr>
<td>07-0638</td>
<td>1/29/2007</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>07-0764</td>
<td>2/3/2007</td>
<td>POLA</td>
<td>Chemical</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>07-0931</td>
<td>2/11/2007</td>
<td>POLA</td>
<td>Chemical</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>07-1252</td>
<td>2/27/2007</td>
<td>POLA</td>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>07-1733</td>
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<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>07-2830</td>
<td>5/9/2007</td>
<td>POLA</td>
<td>Other</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>07-3895</td>
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<td>POLA</td>
<td>Petroleum</td>
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<td>0</td>
</tr>
<tr>
<td>07-4309</td>
<td>7/18/2007</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>07-4559</td>
<td>7/30/2007</td>
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<tr>
<td>07-5353</td>
<td>9/4/2007</td>
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<tr>
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<td>0</td>
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<tr>
<td>07-6802</td>
<td>11/5/2007</td>
<td>POLA</td>
<td>Petroleum</td>
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<td>0</td>
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<tr>
<td>07-7097</td>
<td>11/16/2007</td>
<td>POLA</td>
<td>Chemical</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>07-7805</td>
<td>12/19/2007</td>
<td>POLA</td>
<td>Unspecified</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>08-0243</td>
<td>1/7/2008</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>08-0494</td>
<td>1/16/2008</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>08-1742</td>
<td>3/1/2008</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>08-3058</td>
<td>4/26/2008</td>
<td>POLA</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>08-3731</td>
<td>5/24/2008</td>
<td>POLA</td>
<td>Chemical</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>08-6004</td>
<td>8/17/2008</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Section 3.8 Hazards and Hazardous Materials

Los Angeles Harbor Department

Table 3.8-1: Container-Related Spills at Ports of Los Angeles and Long Beach 2006-2009

<table>
<thead>
<tr>
<th>Spill Control Number</th>
<th>Date</th>
<th>Port</th>
<th>Substance</th>
<th>Injuries</th>
<th>Fatalities</th>
<th>Evacuations</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-6436</td>
<td>9/3/2008</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>08-6866</td>
<td>9/21/2008</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09-1683</td>
<td>2/26/2009</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09-3289</td>
<td>4/28/2009</td>
<td>POLB</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09-3556</td>
<td>5/9/2009</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09-3645</td>
<td>5/13/2009</td>
<td>Terminal Island</td>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>09-4064</td>
<td>6/1/2009</td>
<td>POLA</td>
<td>Petroleum</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: California Emergency Management Agency (Cal-EMA), 2010.

During the period 2006-2009, which encompasses the baseline year, there were approximately 39 hazardous material spills directly or indirectly associated with container terminals in the Port Complex. The Spills include fuel and other spills from vessels serving the terminals. This equates to approximately 10 spills per year for the entire Port Complex. During this period, the total throughput of the container terminals was 31,423,871 TEU. Therefore, the probability of a spill involving a hazardous material at the container terminals can be estimated at $1.24 \times 10^{-6}$ per TEU (39 spills divided by 31,423,871 TEUs). This spill probability is a conservative estimate because it includes materials that would not be considered a risk to public safety (e.g., perfume spills), but would still be considered an environmental hazard. It should be noted that, during the period 2006-2010, there were no reported impacts (injuries, fatalities, or evacuations) to the general public or employees.

There are no bulk liquid facilities adjacent to the proposed Project site. The closest bulk liquid facilities are operated by ExxonMobil at Berths 238-240C located approximately 0.6 mile west in the Main Channel, and Shell Oil at Berths 167-169 in the Turning Basin area approximately 0.8 mile (4,200 ft) north/northwest of the proposed Project site. The ExxonMobil facility contains 26 storage tanks with a total capacity of approximately 2.3 million barrels, and the Shell Oil facility contains 10 storage tanks with a total capacity of approximately 580,000 barrels.

The proposed Project site includes several facilities that contain small amounts of hazardous material and/or hazardous wastes, as listed in Table 3.8-2. Of the materials stored at these facilities, 46 are considered hazardous materials and 37 are listed as hazardous wastes (EMS, 2010).

APL/EMS contracts Ocean Blue Environmental Services to manage all waste oil accumulated from on-site operations. The waste oil is contained on-site in four 500-gallon totes and one 100-gallon tote (5 totes total) for less than 31 days, and then, Ocean Blue Environmental Services transports the waste oil off-site to Industrial Service Oil.
Company, Inc. in Los Angeles, which is a facility approved to accept waste oil (EMS, 2010).

### Table 3.8-2: Facilities Containing Potentially Hazardous Materials and Hazardous Wastes at Berths 302-305

<table>
<thead>
<tr>
<th>Facility</th>
<th>Location</th>
<th>Chemical Stored</th>
<th>Quantity Stored</th>
<th>Hazardous Material</th>
<th>Hazardous Waste</th>
<th>Non-Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Shop</td>
<td>Power Shop</td>
<td>Acetylene</td>
<td>1,700 sf</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antifreeze (ethylene glycol)</td>
<td>500 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gear lubricant (Chevron RPM</td>
<td>1,000 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synthetlic Gear Lubricant SAE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>75W-90 and Chevron Universal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gear Lubricant SAE 80W-90)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Grease (Chevron Del grease EP NLGI 2)</td>
<td>110 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hydraulic Oils (Chevron Hydraulic Oil AW and Chevron 1000 THF)</td>
<td>1,800 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lubricant (Chevron Multi-fak EP 2)</td>
<td>400 gal</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Motor Oil</td>
<td>2,000 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oxygen</td>
<td>1,700 sf</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Propane</td>
<td>40 gal</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Transmission Fluid (Chevron</td>
<td>1,000 gal</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Synthetic ATF Heavy Duty and</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Used Aerosol cans</td>
<td>330 gal</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used filters</td>
<td>330 gal</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Used Oils</td>
<td>1,500 gal</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Used Rags</td>
<td>330 gal</td>
<td>Yes</td>
<td>Yes</td>
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<td></td>
<td></td>
<td>Water-based Paints</td>
<td>100 gal</td>
<td>Yes</td>
<td>Yes</td>
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<td>Chassis Shop</td>
<td>Chassis/Tire/</td>
<td>Acetylene</td>
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<td>Yes</td>
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<td></td>
<td>Reefer</td>
<td>Blue foamer</td>
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<td></td>
<td></td>
<td>Lubricant (Chevron Delo EP NLGI 2)</td>
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<td></td>
<td></td>
<td>Nitrogen</td>
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<td></td>
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<td>Oxygen</td>
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<tr>
<td></td>
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<td>Propane</td>
<td>40 gal</td>
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<td>Yes</td>
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<td>Refrigerant R-134a</td>
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<td>Used Aerosol Cans</td>
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<tr>
<td></td>
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<td>Used Rags</td>
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<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Water-based Paint</td>
<td>100 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Reefer Wash</td>
<td>Reefer Wash</td>
<td>Flo-Kern General Purpose Cleaner 1012</td>
<td>500 gal</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flo-Kern Low Foam Cleaner 0735</td>
<td>500 gal</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flo-Kern Sanitizer 630</td>
<td>500 gal</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hydrochloric Acid</td>
<td>55 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Genset Building</td>
<td>Genset Building</td>
<td>Diesel</td>
<td>10,000 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.8-2: Facilities Containing Potentially Hazardous Materials and Hazardous Wastes at Berths 302-305

<table>
<thead>
<tr>
<th>Facility</th>
<th>Location</th>
<th>Chemical Stored</th>
<th>Quantity Stored</th>
<th>Hazardous Material</th>
<th>Hazardous Waste</th>
<th>Non-Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Motor Oil</td>
<td>200 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Aerosol Cans</td>
<td>55 gal</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Filters</td>
<td>55 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Oils</td>
<td>100 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Rags</td>
<td>55 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Secondary Marine Building</td>
<td>Secondary Marine Building</td>
<td>Propane</td>
<td>40 gal</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water-based Paint</td>
<td>750 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Primary Marine Building</td>
<td>Primary Marine Building</td>
<td>Acetylene</td>
<td>1,700 sf</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lubricant (Mobil Glygoyle 320)</td>
<td>800 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oil (Chevron Rykon oil AW ISO 46)</td>
<td>55 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oil-based Paint</td>
<td>100 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oxygen</td>
<td>1,700 sf</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Aerosol Cans</td>
<td>550 gal</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Filters</td>
<td>55 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Oils</td>
<td>500 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Used Rags</td>
<td>110 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water-based Paint</td>
<td>100 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Fuel Facility</td>
<td>Fuel Facility</td>
<td>Diesel</td>
<td>60,000 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gasoline</td>
<td>8,000 gal</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Propane</td>
<td>400 gal</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Source: EMS, 2010

### 3.8.2.2 Public Emergency Services

Emergency response/fire protection for the Port is provided by the Los Angeles City Fire Department (LAFD); landside and waterside security is provided primarily by the Los Angeles Port Police (Port Police), in addition to the USCG and Los Angeles Police Department (LAPD). Two large fireboats and three small fireboats are strategically placed in the Harbor. There are also fire stations equipped with fire trucks located in the Port and nearby in the communities of Wilmington and San Pedro. Section 3.13, Public Services and Utilities, provides further details regarding emergency response services.

Additionally, the West Coast and Alaska Tsunami Warning Center (WCATWC) operates the federal data collection and warning system for tsunami hazards in its area of responsibility (AOR), which includes the west coast of the US, Alaska, Atlantic Ocean and seaboard, Puerto Rico, Virgin Islands, and Gulf of Mexico coastal areas, as well as the east and west coasts of Canada. The WCATWC collects seismic data from various seismic networks throughout its AOR (National Oceanic and Atmospheric...
Administration [NOAA, 2011a]. This data is processed, automatically and interactively, to quickly determine the tsunami potential of an earthquake, and bulletins are issued based initially on this first analysis of seismic data. If a tsunami could have been generated, sea level data, tsunami models, and historical tsunami information are analyzed to estimate impact level (NOAA, 2011b; National Tsunami Hazard Mitigation Program and NOAA, 2010).

The WCATWC issues tsunami warnings within 10 minutes of an earthquake occurrence when a potentially tsunami-producing earthquake is greater than 7.0 on the Richter in the Pacific AOR. Warnings also may be issued when potentially tsunami-producing earthquakes (greater than 7.5) outside the AOR occur and are likely to affect the AOR. The geographic extent of the warning is based on the size of the earthquake, tsunami travel times throughout the AOR, and expected impact zones (NOAA, 2011a).

Tsunami bulletins and warnings are broadcast by WCATWC through standard National Weather Service (NWS) dissemination methods such as NOAA Weather Radio All Hazards, the Emergency Alert System, and the Emergency Managers Weather Information Network. State emergency service agencies receive the message through FEMA’s National Warning System and the NOAA Weather Wire Service. The states immediately pass warnings to local jurisdictions (NOAA, 2011a). The USCG also relays the message via radio. The Safety Element of the City’s General Plan identifies the entire Port as an area that could be affected by a tsunami, and the areas south/southwest of the Main Channel, including the proposed Project site, and potential inundation areas (California Department of Conservation, 2009). The LAHD has a Port-wide emergency notification system in place to warn of tsunamis and other emergency situations by telephone/email/text alerts (Malin pers. comm., 2011).

### 3.8.2.3 Port of Los Angeles Risk Management Plan

The Risk Management Plan (RMP), an element of the Port Master Plan (PMP), was adopted in 1983, per California Coastal Commission (CCC) requirements. The purpose of the RMP is to provide siting criteria relative to vulnerable resources and the handling and storage of potentially hazardous cargo such as crude oil, petroleum products, and chemicals. The RMP provides guidance for future development of the Port designed to minimize or eliminate the hazards to vulnerable resources from accidental releases. The applicability of the proposed Project or alternative with this Plan would be limited, as the plan pertains primarily to marine terminals that accept crude oil, petroleum products, and chemicals, rather than container terminals.

### 3.8.2.4 Homeland Security

#### 3.8.2.4.1 Terrorism Risk

Prior to the events of September 11, 2001, the prospect of a terrorist attack on a U.S. port facility or a commercial vessel in a U.S. port would have been considered highly speculative under CEQA and NEPA, and not analyzed. The climate of the world today

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2 The WCATWC’s website provides detailed information related to tsunami warning and disaster preparedness, and is available at: http://wcatwc.arh.noaa.gov/faq/frequently.php.

3 Additional information pertaining to tsunami data and information is available through NOAA’s National Weather Service and the NOAA National Geophysical Data Center websites at: http://nthmp.tsunami.gov/media-corner/guidebook.php and http://www.ngdc.noaa.gov/hazard/tsu.shtml respectively.
has an additional unknown factor for consideration (i.e., terrorism). There are limited
data available to indicate the likelihood of a terrorist attack aimed at the Port or the
proposed Project or an alternative; therefore, the probability component of the analysis
described above contains a considerable amount of uncertainty. Nonetheless, this fact
does not invalidate the analysis presented herein. A terrorist action could be the cause of
events described in this section, such as hazardous materials release and/or explosion.
The potential impact of those events would remain as described herein.

3.8.2.4.2 Application of Risk Principles

Terrorism risk can be generally defined by the combined factors of threat, vulnerability,
and consequence. In this context, terrorism risk represents the expected consequences of
terrorist actions taking into account the likelihood that these actions will be attempted,
and the likelihood that they will be successful. Of the three elements of risk, the threat of
a terrorist action cannot be directly affected by activities in the Port. The vulnerability of
the Port and of individual cargo terminals can be reduced by implementing security
measures. The expected consequences of a terrorist action can also be affected by certain
measures, such as emergency response preparations.

3.8.2.4.3 Terrorism Risk Associated with Port Cargo Facilities

The cargo facilities in the Port are the locations where cargo moving through the
international supply chain is transferred between vessels and land transportation (either
over the road tractor-trailers or railroad). Because this function is critical to the
international supply chain and, therefore, to the U.S. economy, it is possible that these
facilities could be targeted for terrorist actions. These terminals are generally not seen as
iconic themselves. During operational periods, people on these terminals are generally
limited to terminal staff members, longshore workers, and truck drivers. There is no
public access to these terminals.

Port facilities could be subject to terrorist actions from the land, air, or the water, and
there could be attempts to disrupt cargo operations through various types of actions.

3.8.2.4.4 Terrorism Risk Associated With Commercial Vessels

Commercial facilities and vessels in the Port could be subject to terrorist action while at
berth or during transit. These vessels could be subject to several types of actions,
including an attack from the land, from the air, from the surface of the water, or from
beneath the surface of the water. During their transit in the Port, some vessels (especially
larger vessels) are highly restricted in their maneuverability.

There have been very few examples of terrorist actions attempted against large
commercial vessels since September 11, 2001. On October 6, 2002, a terrorist attack was
attempted against the French-flagged crude oil tanker Limburg, which was carrying
397,000 barrels of crude oil from Iran to Malaysia. The ship was attacked off the coast of
Yemen by a small boat laden with explosives. The Limburg caught fire and
approximately 90,000 barrels of crude oil leaked into the Gulf of Aden. The Limburg did
not sink. She was salvaged, repaired, and returned to service under the new name
Maritime Jewel.

Unlike vessels carrying hazardous or highly flammable materials, such as bulk liquid
carriers, an attack on a container ship would likely be economic in nature and designed to
disrupt port operations. Container ships are not attractive targets in terms of loss of life
or producing large fires and explosions. However, a catastrophic attack on a vessel in
Port waters could block key channels and disrupt commerce, thus resulting in potential
economic losses.

### 3.8.2.4.5 Terrorism Risk Associated With Containerized Cargo

Intermodal cargo containers could be used to transport a harmful device into the Port.
This could include a weapon of mass destruction, or a conventional explosive device.
The likelihood of such an attack would be based on the desire to cause harm to the Port.
The probability of an attack would have no relationship to project-related throughput.
The potential environmental effects of such an action, if it resulted in release of
hazardous material, would be akin to the accidental release of hazardous materials that
are addressed herein.

Containerized cargo represents a substantial segment of maritime commerce and is the
focus of much of the attention regarding seaport security. Containers are used to
transport a wide variety of goods. A large container ship can carry more than
3,000 containers, of which several hundred might be offloaded at a given port.

An intermodal container is similar to a semi-truck trailer without an attached chassis or
wheels. Standard container sizes are 8 x 8 x 20 ft or 8 x 8 x 40 ft. Once offloaded from
ships, they are transferred to rail cars, or tractor-trailers. Over-the-road weight
regulations generally limit the cargo load of a 40-ft container to approximately
45,000 pounds.

Additionally, the use of cargo containers to smuggle weapons of mass destruction
(WMDs) through the Port and intended to harm another location, such as a highly
populated and/or economically important region, is another possible use of a container by
a terrorist organization. However, the likelihood of such an event would not be
connected to project-related throughput, but rather based on the terrorists’ desired
outcome. Cargo containers represent only one of many potential methods to smuggle
WMDs, and with current security initiatives may be less desirable than other established
smuggling routes (e.g., land-based ports of entry, cross border tunnels, illegal vessel
transportation).

The proposed Project site is an existing container terminal, and therefore, is not a new
potential target for terrorists. The proposed Project and alternatives would support higher
container throughput and make operations more efficient. These improvements are not
expected to make it more attractive to terrorists.

### 3.8.2.5 Security Measures at the Port of Los Angeles

Numerous security measures have been implemented in the Port in the wake of the
terrorist attacks of September 11, 2001. Federal, state, and local agencies, as well as
private industry, have implemented and coordinated many security operations and
physical security enhancements. The result is a layered approach to Port security that
includes the security program of the LAHD and the existing APL Terminal at
Berths 302-305.
3.8.2.5.1 Security Regulations

The Maritime Transportation Security Act (MTSA) of 2003 resulted in maritime security regulations in Title 33 CFR Parts 101-106. These regulations apply to cargo terminals in the Port, including Berths 302-305. Title 33 Part 105 requires that cargo terminals meet minimum security standards for physical security, access control, cargo handling security, and interaction with berthed vessels. These regulations require that terminal operators submit a Facility Security Plan (FSP) to the Coast Guard Captain of the Port for review and approval prior to conducting cargo operations. The requirements for submission of the security plans became effective on December 31, 2003. Operational compliance was required by July 1, 2004.

The International Ship and Port Facility Security (ISPS) Code was adopted by the International Maritime Organization (IMO) in 2003. This code requires both ships and ports to conduct vulnerability assessments and to develop security plans with the purpose of: preventing and suppressing terrorism against ships; improving security aboard ships and ashore; and reducing risk to passengers, crew, and port personnel on board ships and in port areas, for vessels and cargo. The ISPS Code applies to all cargo vessels 300 gross tons or larger and ports servicing those regulated vessels and is very similar to the MTSA regulations.

The USCG is responsible for enforcement of the MTSA and ISPS Code regulations discussed above. Due to the parallel nature of the MTSA and ISPS requirements, compliance with the MTSA is tantamount to compliance with the ISPS. If either the terminal or a vessel berthed at the terminal is found to be in non-compliance with these security regulations, the USCG may not permit cargo operations, and the terminal and/or vessel operators may be subject to fines. In accordance with its responsibilities for land-based security under Title 33 CFR Part 105, the USCG may impose additional control measures related to security.

In July 2005, the Port Tariff was modified to require that all Port terminals subject to MTSA regulations to fully comply with these regulations, and to provide the Port with a copy of their approved FSP.

3.8.2.5.2 APL Container Terminal Security Measures

The existing APL Terminal at Berths 302-305 is subject to USCG maritime security regulations discussed above in Section 3.8.2.5.1. The FSP for the APL Terminal (Berths 302-305) was approved by the USCG in 2003 and includes the following:

1) Designating a Facility Security Officer (FSO) with a general knowledge of current security threats and patterns, risk assessment methodology, and with the responsibility for implementing and periodically updating the FSP and Assessment and performing an annual audit for the life of the Project;

2) Conducting an FSA to identify site vulnerabilities, possible security threats, consequences of an attack, and facility protective measures;

3) Responding to transportation security incidents; notifying and coordinating with local, state, and federal authorities, preventing unauthorized access; implementing measures and equipment to prevent or deter dangerous substances and devices; and conducting training and evacuation;
4) Implementing scalable security measures to provide increasing levels of security at increasing Maritime Security (MARSEC) levels for facility access control, restricted areas, cargo handling, vessel stores and bunkers, and monitoring;

5) Conducting security exercises at least once each calendar year and drills at least every 3 months; and

6) Mandatory reporting of all security breaches and incidents.

Security training is conducted for the FSO of the Terminal operator and associated security personnel for the employees of the Terminal operator. This consists of awareness training and basic security guard training; there are annual refresher courses. The Pacific Maritime Association provides security training for the labor force supporting the APL Terminal.

3.8.2.5.3 Vessel Security Measures

All cargo vessels 300 gross tons or larger that are flagged by IMO signatory nations adhere to the ISPS Code standards discussed in Section 3.8.2.5.1. These requirements include:

1) Ships must develop security plans that address monitoring and controlling access; monitoring the activities of people, cargo, and stores; and ensuring the security and availability of communications;

2) Ships must have a Ship Security Officer (SSO);

3) Ships must be provided with a ship security alert system. These systems transmit ship-to-shore security alerts to a competent authority designated by the Flag State Administration, which may communicate the company name, identify the ship, establish its location, and indicate that the ship security is under threat or has been compromised. For the west coast, this signal is received by the Coast Guard Pacific Area Command Center in Alameda, California.

4) International port facilities that ships visit must have a security plan, including focused security for areas having direct contact with ships; and

5) Ships may have certain equipment onboard to help maintain or enhance the physical security of the ship, including:

   - Monitoring and controlling access;

   - Monitoring the activities of people and cargo;

   - Ensuring the security and availability of communications; and

   - Completing a Declaration of Security signed by the FSO and SSO, which ensures that areas of security overlapping between the ship and facility are adequately addressed.

Vessels flagged by nations that are not IMO signatory are subject to special USCG vessel security boarding prior to entering port.

3.8.2.5.4 Security Credentialing

The TWIC program is a TSA and USCG initiative that includes issuance of a tamper-resistant biometric credential to maritime workers requiring unescorted access to secure
areas of port facilities and vessels regulated under the MTSA. The TWIC program minimizes the potential for unauthorized handling of containers that contain hazardous materials and provides additional shoreside security at the terminal. In order to obtain a TWIC, an individual must successfully pass a security threat assessment conducted by TSA. This assessment includes a criminal history check and a citizenship or immigration status check of all applicants. The Port is currently involved in initial implementation of the TWIC program, including a series of field tests at selected Port terminals.

3.8.2.5.5 Cargo Security Measures

U.S. Customs and Border Protection (CBP) is the federal agency with responsibility for the security of cargo being shipped into the United States. CBP is the lead agency for screening and scanning cargo that is shipped through the Port. Neither the APL Terminal nor the LAHD have responsibilities related to security scanning or screening of cargo entering the Port. However, the Port Police may inspect cargo if there is probable cause on a case-by-case basis.

CBP conducts several initiatives related to security of the supply chain. Through the Container Security Initiative (CSI) program, CBP inspectors pre-screen U.S.-bound marine containers at foreign ports prior to loading aboard vessels bound for U.S. ports. The Customs Trade Partnership Against Terrorism offers importers expedited processing of their cargo if they comply with CBP measures for securing their entire supply chain. Details of CBP cargo security programs can be found at the CBP’s website: http://cbp.gov/.

3.8.2.5.6 Port of Los Angeles Security Initiatives

The LAHD is not subject to the international or federal security regulations discussed in Section 3.8.2.5.1. However, all container terminal tenants at the Port are subject to these regulations. The Port’s Strategic Plan 2010/2011 identifies eight safety and security initiatives. These initiatives support the strategic objective of maintaining the Port as a world-class model for crime prevention, counter-terrorism detection, maritime security training, and emergency incident response and mitigation. The initiatives in this area include:

- Public Safety;
- Develop Port-wide and Citywide emergency operations contingencies;
- Continue classes at the Maritime Law Enforcement Training Center;
- Complete an audit of Safety and Security staffing;
- Homeland Security/Emergency Preparedness;
- Install a Port-wide emergency public notification system;
- Continue to improve the capability of the Port to prevent or detect an event, to respond to an incident, mitigate its effects on the Port and the community, and resume critical operations; and

The LAHD’s current Strategic Plan, which is a five-year rolling plan designed to guide future development. Some of the initiatives are ongoing and have a future completion date, while others may be scheduled for implementation during FY 2010-2011. The current Strategic Plan contains the status of some initiatives, and is available here: http://www.portoflosangeles.org/planning/strategic_plan_2010-11.pdf
Continue security upgrades at all critical locations.

The Ports Strategic Plan for Safety and Security identifies 19 strategic initiatives in the primary areas of public safety, homeland security, and emergency preparedness that will allow focus on efforts in those areas where it can achieve maximum effectiveness (POLA, 2007). The strategic initiatives are listed below under the three primary areas along with a notation indicating their status:

1) Expanding Port Police and enhancement of its communications capabilities
   a. Establishing a 24-hour two-vessel presence (implemented)
   b. Establishing a vehicle and cargo inspection team (implemented)
   c. Establishing a Port Police substation in Wilmington (implemented)

2) Enhancing recruiting and retention of Port Police personnel (suspended)

3) Expanding Port Police communications capabilities to include addition of dedicated tactical frequencies (in progress)

4) Enhancing security at Port-owned facilities (in progress)

5) Implementing a Green/Responsible Marina Program (implemented)

In the area of homeland security, the Port will continue to embrace technology, while focusing its efforts on those areas of particular interest to the Port. Current Port homeland security initiatives include:

1) Upgrading security at the World Cruise Center

2) Expanding the waterside camera system in the Port

3) Establish restricted areas for non-commercial vehicles and vessels

4) Installing additional shore-side cameras at critical locations

5) Working with TSA to implement the TWIC program

6) Promoting increased scanning at overseas ports

7) Updating long-range security plans for the Port

8) Developing a security awareness training program

9) Enhancing outreach to constituents

In the area of emergency preparedness, the LAHD will continue to focus on the response and incident mitigation aspects of its safety and security program. Most importantly, focus would be placed on the LAHD’s role as a community and meeting the needs of and obligations to that community, and strengthening the partnership with agencies such as the LAPD and LAFD in the interest of the port community. Current Port emergency preparedness initiatives include:

1) Completing upgrades to the Department Operations Center

2) Beginning installation of a Port-wide emergency public notification system

3) Continuing development of our business continuity plan
4) Updating Emergency Procedure and Port recovery plans

5) Conducting a Real-Time Evacuation Exercise Involving the Port and the Community

3.8.3 Applicable Regulations

3.8.3.1 List of Regulations

Regulations applicable to the proposed Project or alternatives are designed to regulate hazardous materials and hazardous wastes. These regulations also are designed to limit the risk of upset during the use, transport, handling, storage, and disposal of hazardous materials. The proposed Project or alternative would be subject to numerous federal, state, and local laws and regulations including, but not limited to, those described below.

3.8.3.1.1 Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901-6987)

The goal of Resource Conservation and Recovery Act (RCRA), a federal statute passed in 1976, is the protection of human health and the environment, the reduction of waste, the conservation of energy and natural resources, and the elimination of the generation of hazardous waste as expeditiously as possible. The Hazardous and Solid Waste Amendments of 1984 significantly expanded the scope of RCRA by adding new corrective action requirements, land disposal restrictions, and technical requirements. The corresponding regulations in 40 CFR Parts 260-299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

3.8.3.1.2 Department of Transportation Hazardous Materials Regulations (Title 49 CFR Parts 100-185)

The Department of Transportation (DOT) Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications) and 180 (Packaging Maintenance) apply to existing operations at the APL Terminal, and would apply to the proposed Project or alternative operations.

3.8.3.1.3 The Hazardous Materials Transportation Act, 49 CFR Part 171, Subchapter C

The DOT, FHWA, and the Federal Railroad Administration (FTA) regulate transportation of hazardous materials at the federal level. The Hazardous Materials Transportation Act (HMTA) requires that carriers report accidental releases of hazardous materials to DOT at the earliest practical moment. Other incidents that must be reported include deaths; injuries requiring hospitalization; and property damage exceeding $50,000.

3.8.3.1.4 United States Coast Guard Title 33

The United States Coast Guard (USCG), through Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the CFR, is the federal agency responsible for vessel
inspection, marine terminal operations safety, coordination of federal responses to marine
emergencies, enforcement of marine pollution statutes, marine safety (such as navigation
aids), and operation of the National Response Center for spill response, and is the lead
agency for offshore spill response. The USCG implemented a revised vessel-boarding
program in 1994 designed to identify and eliminate sub-standard ships from U.S. waters.
The program pursues this goal by systematically targeting the relative risk of vessels and
increasing the boarding frequency on high risk (potentially substandard) vessels. The
relative risk of each vessel is determined through the use of a matrix that factors the flag
of the vessel, owner, operator, classification society, vessel particulars, and violation
history. Vessels are assigned a boarding priority from I to IV, with priority I vessels
being the potentially highest risk and priority IV having relatively low risk. The USCG is
also responsible for reviewing marine terminal Operations Manuals and issuing Letters of
Adequacy upon approval.

3.8.3.1.5 Hazardous Waste Control Law, California Health and Safety Code,
Chapter 6.5

This statute is the basic hazardous waste law for California. The Hazardous Waste
Control implements the federal RCRA cradle-to-grave waste management system in
California. California hazardous waste regulations can be found in Title 22, Division 4.5,
Environmental Health Standards for the Management of Hazardous Wastes. The
program is administered by the California Department of Toxic Substances Control
(DTSC).

3.8.3.1.6 Emergency Planning and Community Right-To-Know Act (42 U.S.C.
11001 et seq.)

Also known as Title III of the Superfund Amendments and Reauthorization Act (SARA),
the Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted by
Congress as the national legislation on community safety. This law was designated to
help local communities protect public health, safety, and the environment from chemical
hazards. To implement EPCRA, Congress required each state to appoint a State
Emergency Response Commission (SERC). The SERCs are required to divide their
states into Emergency Planning Districts and to name a Local Emergency Planning
Committee (LEPC) for each district. EPCRA provides requirements for emergency
release notification, chemical inventory reporting, and toxic release inventories for
facilities that handle chemicals.

3.8.3.1.7 Hazardous Material Release Response Plans and Inventory Law
(California Health and Safety Code, Chapter 6.95)

California’s “right-to-know law” requires businesses to develop a Hazardous Material
Management Plan or a business plan for hazardous materials emergencies if they handle
more than 500 pounds, 55 gallons, or 200 cubic ft of hazardous materials. In addition,
the business plan includes an inventory of all hazardous materials stored or handled at the
facility above these thresholds. This law is designed to reduce the occurrence and
severity of hazardous materials releases. The Hazardous Materials Management Plan or
business plan must be submitted to the Certified Unified Program Agency (CUPA),
which is, in this case, the LAFD. The state has integrated the federal EPCRA reporting
requirements into this law; and, once a facility is in compliance with the local
administering agency requirements, submittals to other agencies are not required. In the
event of an emergency, operators at the APL Terminal have a Hazardous Materials Business Plan in place to facilitate effective and safe management of any release.

### 3.8.3.1.8 Los Angeles Municipal Code (Fire Protection – Chapter 5, Section 57, Divisions 4 and 5)

These portions of the municipal fire code regulate the construction of buildings and other structures used to store flammable hazardous materials, and the storage of these same materials. These sections ensure that the business is properly equipped and operates in a safe manner and in accordance with all applicable laws and regulations. These permits are issued by the LAFD.

### 3.8.3.1.9 Los Angeles Municipal Code (Public Property – Chapter 6, Article 4)

This portion of the municipal code regulates the discharge of materials into the sanitary sewer and storm drains. It requires the construction of spill-containment structures to prevent the entry of forbidden materials, such as hazardous materials, into sanitary sewers and storm drains.

### 3.8.3.2 Other Requirements

California regulates the management of hazardous wastes through Health and Safety Code Section 25100 et seq., and through the California CCR, Title 22, and Division 4.5, Environmental Health Standards for the Management of Hazardous Wastes, as well as CCR Title 26, Toxics.

The Safety Element of the City of Los Angeles General Plan addresses the issue of protection of its people from unreasonable risks associated with natural disasters (e.g., fires, floods, and earthquakes) (City of Los Angeles, 1996). The Safety Element provides a contextual framework for understanding the relationship between hazard mitigation, response to a natural disaster, and initial recovery from a natural disaster.

The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. Compliance with other federal, state, and local laws and regulations (e.g., driver training and licensing and Caltrans packaging requirements) govern transport of cargo on the street and highway system and during rail transport. The shippers package the hazardous materials in the containers and provide labeling in compliance with Caltrans requirements.

Numerous facilities handle, store, or transport hazardous materials in the Port. Activities that involve hazardous liquid bulk cargoes (e.g., fuels) at the Port are governed by the Port of Los Angeles RMP (LAHD, 1983). This plan provides for a methodology for assessing and considering risk during the siting process for facilities that handle substantial amounts of dangerous cargo, such as liquid bulk facilities.

Hazardous materials inside cargo containers fall under the primary jurisdiction of the federal Department of Homeland Security and USCG (33 CFR Part 126) while the containers are at sea, in Port waters, and at waterfront facilities. Under the jurisdiction of the Department of Homeland Security (DHS), the USCG maintains an Office of Operating and Environmental Standards Division, which develops national regulations and policies on marine environmental protection. This division coordinates with
appropriate federal, state, and international organizations to minimize conflicting
environmental requirements. The USCG also maintains a Hazardous Materials Standards
Division (HMSD), which develops standards and industry guidance to promote the safety
of life and protection of property and the environment during marine transportation of
hazardous materials. This includes transportation of bulk liquid chemicals and liquefied
gases, hazardous bulk solids, and packaged hazardous cargoes, as well as hazardous
materials used as ship stores and hazardous materials used for shipboard fumigation of
cargo.

The VTS is a Public/Private partnership vessel traffic service for the Ports of Los Angeles
and Long Beach. VTS is jointly operated and managed by the Marine Exchange of
Southern California (a non-profit corporation) and the USCG COTP. VTS is a
cooperative effort of the State of California, USCG, Marine Exchange of Southern
California, Ports of Los Angeles and Long Beach, and is under the authority of California
Government Code, Section 8670.21, Harbors and Navigation Code, Sections 445-449.5
and the Port tariffs of Los Angeles and Long Beach.

Terminal cargo operations involving hazardous materials are governed by the LAFD in
accordance with regulations of state and federal departments of transportation
(49 CFR Part 176). Regulated hazardous materials in the Port may include maritime-use
compounds, such as chlorinated solvents, petroleum products, compressed gases, paints,
cleaners, and pesticides.

The risk of terrorism and any resultant environmental effects, when such risks are
relevant and reasonably foreseeable, must be considered during preparation of
environmental documents under NEPA (U.S. Court of Appeals for the 9th Circuit in
San Luis Obispo Mothers for Peace, et. al v. Nuclear Regulatory Commission
[449 F.3d 1016 (9th Cir. 2006)]. The decision by the court held that the risk of terrorist
attack was within the foreseeable chain of causation and dealt with likely physical effects
of that terrorism.

3.8.4 Impacts and Mitigation Measures

3.8.4.1 Methodology

Risk Probability and Criticality

The CEQA guidelines require identifying any adverse change in any of the physical
conditions in the area affected by the proposed Project or alternatives, including a change
in the probability of spills or releases. For incidents that may affect environmental
health and public safety, a risk matrix is commonly used to evaluate the expected
frequencies of scenarios versus the severity of potential consequences to determine the
level of significance (see Table 3.8-3). The potential for significant safety impacts
increases proportionally to the frequency of occurrence and potential consequences of
an event. Frequency is typically classified into six categories (frequent, periodical,
occasional, possible, improbable, and extraordinary) based on a predefined expected
level of occurrence. The severity of consequence is classified into five categories
(negligible, minor, major, severe, and disastrous) based on the potential environmental
and safety impact on the public.
Table 3.8-3: Risk Matrix

<table>
<thead>
<tr>
<th>Consequences</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraordinary- (&gt;1,000,000 years)</td>
<td>4</td>
</tr>
<tr>
<td>Improbable (&lt;1,000,000 years)</td>
<td>3</td>
</tr>
<tr>
<td>Possible (&lt;100 years)</td>
<td>2</td>
</tr>
<tr>
<td>Occasional (&lt;10 and &lt;100 years)</td>
<td>1</td>
</tr>
<tr>
<td>Periodic (&lt;1 and &lt;10 years)</td>
<td>1</td>
</tr>
<tr>
<td>Frequent (&gt;1/year)</td>
<td>1</td>
</tr>
<tr>
<td>Catastrophic (&gt;100 severe injuries, more than 10 fatalities or &gt;357,142 bbl)</td>
<td>4 3 2 1 1 1</td>
</tr>
<tr>
<td>Severe (up to 100 severe injuries, up to 10 fatalities, or 2,380–357,142 bbls)</td>
<td>4 3 3 2 2 2</td>
</tr>
<tr>
<td>Moderate (up to 10 severe injuries or 238–2,380 bbl)</td>
<td>4 4 3 3 3 3</td>
</tr>
<tr>
<td>Slight (a few minor injuries or 10–238 bbl)</td>
<td>4 4 4 4 4 4</td>
</tr>
<tr>
<td>Negligible (no minor injuries or &lt;10 bbls)</td>
<td>4 4 4 4 4 4</td>
</tr>
</tbody>
</table>

Note: Incidents that fall in the dark shaded area of the risk matrix (with cell entries of 1 and 2) would be classified as significant in the absence of mitigation, while the lighter shaded areas (with cell entries of 3) would be significant in the absence of engineering and/or administrative controls. Unshaded areas (with cell entries of 4) would be considered less than significant.

bbl = barrel that is 42 gallons.

Sources: LACFD, 1991; Santa Barbara County, 1995; Aspen Environmental Group, 1996.

Table 3.8-3 specifies values in each category of consequence and frequency classification typically used in the industry. Incidents that fall in the shaded area of the risk matrix would be classified as significant, unless for the lighter shaded areas there are engineering and/or administrative controls in place. The risk matrix approach follows the Los Angeles County Fire Department (LACFD) risk management guidelines that were originally developed for the California Risk Management and Prevention Program (RMPP) and also include the criticality classifications presented in Table 3.8-4 (LACFD, 1991). The RMPP used the combination of accident frequency and consequences to define the significance of a potential accident in terms of impacts to public safety (i.e., potential injuries and/or fatalities). Santa Barbara County added additional criteria to address the significance of oil spills and environmental hazards, which for the proposed Project or alternatives would include fuel spills from container ships (Santa Barbara County, 1995). The potential significance of impacts to public safety and the environment are evaluated using the risk matrix approach. The extent of environmental damage is evaluated in the relevant issue areas (e.g., biological resources and water quality).
Table 3.8-4: Criticality and Frequency Classifications

<table>
<thead>
<tr>
<th>Criticality Classification</th>
<th>Description of Public Safety Hazard</th>
<th>Environmental Hazard – Oil Spill Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>No significant risk to the public, with no injuries</td>
<td>Less than 10 bbls (420 gal)</td>
</tr>
<tr>
<td>Slight</td>
<td>At most a few minor injuries</td>
<td>10–238 bbl (420–10,000 gal)</td>
</tr>
<tr>
<td>Moderate</td>
<td>Up to 10 severe injuries</td>
<td>238–2,380 bbl (10,000–100,000 gal)</td>
</tr>
<tr>
<td>Severe</td>
<td>Up to 100 severe injuries or up to 10 fatalities</td>
<td>2,380–357,142 bbls (100,000–15,000,000 gal)</td>
</tr>
<tr>
<td>Catastrophic</td>
<td>More than 100 severe injuries or more than 10 fatalities</td>
<td>Greater than 357,142 bbl (15,000,000 gal)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency Classification</th>
<th>Frequency per year</th>
<th>Description of the Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraordinary</td>
<td>&lt; once in 1,000,000 years</td>
<td>Has never occurred but could occur.</td>
</tr>
<tr>
<td>Improbable</td>
<td>between once in 10,000 and once in 1,000,000 years</td>
<td>Occurred on a worldwide basis, but only a few times. Not expected to occur.</td>
</tr>
<tr>
<td>Possible</td>
<td>Between once in a 100 and once in 10,000 years</td>
<td>Is not expected to occur during the project lifetime.</td>
</tr>
<tr>
<td>Occasional</td>
<td>Between once in a 10 and once in 100 years</td>
<td>Would probably occur during the Project lifetime.</td>
</tr>
<tr>
<td>Periodic</td>
<td>Between once per year and once in 10 years</td>
<td>Would occur about once a decade.</td>
</tr>
<tr>
<td>Frequent</td>
<td>Greater than once in a year</td>
<td>Would occur once in a year on average.</td>
</tr>
</tbody>
</table>

Sources: Santa Barbara County, 1995; Aspen Environmental Group, 1996.

The risk criticality matrix shown in Table 3.8-4 combines accidental probability with the severity of consequences to identify the risk criticality. Four categories of risk have been defined by the LACFD as:

1) Critical. Mitigate within 6 months with administrative or engineering controls (to reduce the Risk Code to 3 or less).
2) Undesirable. Mitigate within 1 year with administrative or engineering controls (to reduce the Risk Code to 3 or less).
3) Acceptable. Verify need for engineering controls, or that administrative controls are in place for hazard.
4) Acceptable. No mitigating action required for the identified hazard.

The risk criticality matrix was originally developed for use in evaluating the probability and significance of a release of acutely hazardous materials (AHM) under the
requirements of Section 25532(g) of the Health and Safety Code, and has been modified over the years to include other environmental and public safety hazards.

Risk of Upset Due to Terrorism

Analysis of risk of upset is based primarily on potential frequencies of occurrence for various events and upset conditions as established by historical data. The climate of the world today has added an additional unknown factor for consideration: i.e., terrorism. There are limited data available to indicate the likelihood of a terrorist attack aimed at the Port or the proposed Project or alternatives and, therefore, the probability component of the analysis described above contains a considerable amount of uncertainty. Nonetheless, this fact does not invalidate the analysis contained herein. Terrorism can be viewed as a potential trigger that could initiate events described in this section, such as hazardous materials release and/or explosion. The potential impact of those events, once triggered by whatever means, would remain as described herein. The terminal operator, EMS, Inc., would also be required to develop a Terrorist Surveillance Program (TSP) for the APL Terminal, which would be approved by the USCG and the California State Lands Commission (CSLC) prior to implementation of the proposed Project or an alternative. Ships calling at the Port would need to provide a 96-hour advance notice, and would be screened by the USCG and CBP. The USCG would have options of denying entry of vessels to the Port if any security situation arises.

Hazards Associated with Truck Transportation

The proposed Project/alternative-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, potential impacts from increased truck traffic on regional injury and fatality rates have been evaluated.

The Federal Motor Carrier Safety Administration (FMCSA), within DOT, operates and maintains the Motor Carrier Management Information System (MCMIS). MCMIS contains information on the safety fitness of commercial motor carriers and hazardous material shippers subject to the FMCSA Regulations and the 49 CFR (Part 171.8, 172, 173.403, 173.8, and 397.101) Hazardous Materials Regulations. As part of these requirements, reportable accident rates are generated for various types of carriers, including carriers of hazardous materials. More than 500,000 motor carriers are included in the database, of which approximately 40,000 carry hazardous materials. A DOT-reportable accident is an accident that produces either a fatality, a hospitalization, or requires the vehicle be towed.

The Hazardous Materials Information System (HMIS) is another system of databases managed by the Office of Hazardous Materials Safety within DOT. The database maintains information on transportation-related hazardous material incidents.

According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous materials truck accident rate is more than twice the hazardous materials truck accident rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents per million vehicle miles, and the average hazardous materials truck accident rate was estimated to be 0.32 accidents per million vehicle miles.

Based on the National Highway Traffic Safety Administration (NHTSA, 2008), of the estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities.
and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The Fatality Analysis Reporting System (FARS) and the Trucks Involved in Fatal Accidents (TIFA) survey were the sources of data for this analysis, which primarily examined fatalities associated with vehicle impact and trauma.

3.8.4.1.1 CEQA Baseline

Section 15125 of the CEQA Guidelines requires EIRs to include a description of the physical environmental conditions in the vicinity of a project that exist at the time of the NOP. These environmental conditions normally would constitute the baseline physical conditions by which the CEQA lead agency determines if an impact is significant. For purposes of this Draft EIS/EIR, the CEQA baseline for determining the significance of potential Project impacts is the environmental set of conditions that prevailed at the time the NOP was published for the proposed Project - July 2009. The CEQA baseline takes into account the throughput for the 12-month period preceding July 2009 (July 2008 through the end of June 2009) in order to provide a representative characterization of activity levels throughout the year. The CEQA baseline conditions are described in Section 2.6.1. The CEQA baseline for this proposed Project includes approximately 1.13 million TEUs per year, 998,728 annual truck trips, and 247 annual ship calls that occurred on the 291-acre APL Terminal in the year prior to and including June 2009.

The CEQA baseline represents the setting at a fixed point in time and differs from the No Project Alternative (Alternative 1) in that the No Project Alternative addresses what is likely to happen at the proposed Project site over time, starting from the existing conditions. Therefore, the No Project Alternative allows for growth at the proposed Project site that could be expected to occur without additional approvals, whereas the CEQA baseline does not.

3.8.4.1.2 NEPA Baseline

For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA baseline conditions are described in Section 2.6.2. Briefly, the NEPA baseline condition for determining significance of impacts includes the full range of construction and operational activities the applicant could implement and is likely to implement absent a federal action, in this case the issuance of a USACE permit. The NEPA baseline includes minor terminal improvements in the upland area (i.e., conversion of a portion of the dry container storage unit area to reefers and utility infrastructure), operation of the 291-acre container terminal, and assumes that by 2027, the terminal (Berths 302 to 305) handles up to approximately 2.15 million TEUs annually and accommodates 286 annual ships calls and 2,336 on-way rail trips, without any federal action. Because the NEPA baseline is dynamic, it includes different levels of terminal operations at each study year (2012, 2015, 2020, 2025, and 2027).

Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA baseline is not bound by statute to a “flat” or “no-growth” scenario. Therefore, the USACE could project increases in operations over the life of a project to properly describe the NEPA baseline condition. Normally, any federal permit decision would focus on direct impacts of the proposed Project to the aquatic environment, as well as indirect and cumulative impacts in the uplands determined to be within the scope of federal control and responsibility. Significance of the proposed Project or alternative under NEPA is defined by comparing the proposed Project or alternative to the NEPA baseline (i.e., the increment).
The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal Action Alternative. Under the No Federal Action Alternative, only minor terminal improvements (utility infrastructure, and conversion of dry container storage to refrigerated container storage) would occur, but no new cranes would be added, and the terminal configuration would remain as it was configured in 2008 (291 acres, 12 A-frame cranes, and a 4,000-ft wharf). However, forecasted increases in cargo throughput and annual ship calls would still occur as container growth occurs.

3.8.4.2 Thresholds of Significance

Criteria for determining the significance of impacts related to risk of upset are based on the L.A. CEQA Thresholds Guide (City of Los Angeles, 2006) and federal and state standards, regulations, and guidelines. The proposed Project or an alternative would have a significant impact on risk of upset if it would:

RISK-1 Substantially increase the probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance as defined in Tables 3.8-2 and 3.8-3.

RISK-2 Substantially increase the probable frequency and severity of consequences to people from exposure to health hazards as defined in Tables 3.8-2 and 3.8-3.

RISK-3 Substantially interfere with an existing emergency response or evacuation plan, thereby increasing risk of injury or death as defined in Tables 3.8-2 and 3.8-3.

RISK-4 Not comply with applicable regulations and policies governing hazardous materials and activities at the Port.

RISK-5 Project- or alternative-related terminal modifications would result in an increased probability of an accidental spill as a result of a tsunami-induced flooding or other seismic event.

RISK-6 Project- or alternative-related terminal modifications would result in a measurable increase in the probability of a terrorist attack, which would result in adverse consequences to the proposed Project site and nearby areas.

3.8.4.3 Impact Determination

3.8.4.3.1 Proposed Project

3.8.4.3.1.1 Construction Impacts

Impact RISK-1a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance.

The proposed Project would improve the existing terminal, develop the existing 41-acre fill area as backlands, construct electrification infrastructure in the backlands behind Berths 305-306, add 1,250 lf of new wharf at Berth 306, and dredge the Pier 300 Channel along Berth 306 (up to 20,000 cy in total could be dredged), with the dredged material disposed of or beneficially reused as fill off-site at approved disposal sites. Under this
alternative, 12 new cranes would be added to the wharves along Berths 302-306, for a total of 24 cranes. Total terminal acreage would be 347 acres.

The proposed Project throughput is anticipated to be approximately 3.2 million TEUs in 2027. This would translate into 390 annual ship calls at Berths 302-306 by full build-out (2027). In addition, the proposed Project would result in up to 11,361 peak daily truck trips and 2,953 annual one-way-rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

Development of the backlands would include installation of lighting, fire hydrants, and other infrastructure and equipment necessary to ensure the safe and efficient movement of containers. These additional backlands improvements would require construction activities such as grading, drainage, paving, striping, lighting, fencing, and the addition of utility facilities and equipment. The proposed Project includes traffic control modifications and reconfiguration of roadway geometrics at the existing entrance to Berths 302-306 terminal along Earle Street and Terminal Way to improve the flow of truck traffic.

Construction activities would be conducted using best management practices (BMPs) in accordance with City guidelines, as detailed in the Development Best Management Practices Handbook (City of Los Angeles, 2002), and the Los Angeles Municipal Code regulations (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of materials and the size of packages containing hazardous materials) and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. Standard BMPs would be used during construction and demolition activities to minimize runoff of contaminants and clean-up any spills, in compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ) and the proposed Project-specific Storm Water Pollution Prevention Plan (SWPPP). Further, BMPs would be implemented during the dredging at Berth 306 and the associated beneficial reuse and/or disposal of the dredged material. Applicable BMPs include, but are not limited to: vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; solid and hazardous waste management; and contaminated soil management.

Implementation of the aforementioned construction and demolition standards would minimize the potential for an accidental release of petroleum products, hazardous materials, and/or explosion during construction/demolition activities at the proposed Project site. Standards include, in addition to prevention measures, procedures designed to effectively and efficaciously clean up spills and immediately implement remedial actions. It is unlikely that construction and demolition activities would involve the use of substantial quantities of hazardous materials and the most likely source of these materials would be from vehicles at the site. There could be small amounts of hazardous materials used to support dredge operations; however, these materials would be confined to the barge. Thus, the most likely spills or releases of hazardous materials during construction would involve petroleum products, such as diesel fuel, gasoline, oils, and lubricants. Because construction/demolition-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, such spills are typically short-term and localized. This is attributable to the fact that the volume in any single source vehicle is generally less than 50 gallons and fuel trucks that might be present at the site are limited to 10,000 gallons or less. Thus, the potential consequence
of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” However, there is also potential for release of contaminated soils from dredging approximately 20,000 cy at Berth 306. Depending upon the quality of the dredge sediments and site availability, dredged material would be beneficially reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat). If these sites are unavailable or impracticable, an ocean disposal site (LA-2) could be considered assuming the material was approved for such use by the DMMT.

Sediments from the proposed dredging area have been evaluated using USEPA/USACE protocols to determine the suitability of the material for unconfined, aquatic disposal or confined disposal (refer to Section 3.14.2.3 of Section 3.14, Water Quality, Sediments, and Oceanography, for additional details). If the dredged material is contaminated, then it would be beneficially reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat). If the material is not contaminated as determined by standard testing procedures, then the material could be disposed of at an ocean disposal site (i.e., LA-2), in lieu of the CDF and/or Cabrillo shallow water habitat. Beneficially reusing dredge material at an approved disposal site, such as the CDF at Berths 243-245, Cabrillo shallow water habitat, and/or ocean disposal, would not result in human health or environmental risk because the sediments would meet disposal standards and would be put in a specifically designated site where other qualifying material is deposited.

**CEQA Impact Determination**

As discussed above, construction and demolition would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts would be less than significant under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

As discussed above, construction and demolition would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.
Impact RISK-2a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards.

Construction and demolition activities would be conducted using BMPs in accordance with City guidelines, as detailed in the Development Best Management Practices Handbook (City of Los Angeles, 2002), and the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to a Release Response Plan (RRP) and a Hazardous Materials Inventory (HMI). Implementation of increased inventory accountability and spill prevention controls associated with this RPP and HMI, such as limiting the types of materials stored and size of packages containing hazardous materials, would limit both the frequency and severity of potential releases of hazardous materials, thus minimizing potential health hazards and/or contamination of soil or water during construction/demolition activities. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Impacts from contamination of soil or water during construction/demolition activities would apply to not only construction personnel, but to people and property occupying operational portions of the Project area because Berths 302-305 would be operating during construction activities.

Construction activities would include dredging, transport, and disposal of materials from the Pier 300 Channel. Approximately 20,000 cy of sediments would be removed from alongside Berth 306 to a depth of -55 ft MLLW plus two ft of overdepth. The marine sediments would be beneficially reused, or transported and disposed of at an approved upland facility, or at an ocean disposal site, or a combination of these options.

During construction, hazardous materials shipped to and within the Port could be released in the event a ship is involved in an accident with a dredge or during dredging activities, and could therefore pose a threat to the public. However, hazardous materials shipped, transported, handled, or otherwise stored would be in compliance with the RMP, USCG regulations, fire department requirements, and state and federal departments of transportation regulations (Title 49 CFR Part 176). As listed in Table 3.8-1, there have been several small releases of hazardous materials from containers, but none have been considered serious or have affected members of the public or employees.

Standard policies regulate the storage of hazardous materials, including the types of materials, size of packages containing hazardous materials, and the separation of containers containing hazardous materials. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Furthermore, construction activities would be conducted using BMPs in accordance with City’s guidelines. Compliance with these regulations and BMPs would limit the potential for exposure to health hazards.

Implementation of these preventative measures would minimize the potential for spills to affect members of the public, including on-site employees, and limit the adverse impacts of contamination to a relatively small area.
CEQA Impact Determination

Because construction/demolition-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term, localized, and small (less than 10 gallons [FSEL, 2006]), the potential consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” Therefore, construction/demolition activities, including dredging activities at Berth 306 and the associated reuse and/or disposal, would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Because construction/demolition-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term localized, and small (less than 10 gallons [FSEL, 2006]), the potential consequence of such accidents is classified as “slight”, resulting in a Risk Code of 4, which is “acceptable”. Therefore, construction/demolition activities, including dredging activities at Berth 306 and the associated reuse and/or disposal, would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-3a: Construction/demolition activities would not substantially interfere with an existing emergency response or evacuation plan or increase the risk of injury or death.

Emergency response and evacuation planning is a shared responsibility among the Los Angeles Police Department (LAPD), LAFD, Los Angeles Port Police, and USCG. Proposed Project construction would occur primarily on-site or within the immediate vicinity of the terminal’s gates, and is not expected to interfere with emergency responses or evacuation plans. As a standard procedure for activities occurring on Port property and within the Port area, the contractor would coordinate with the agencies responsible for the Emergency response and evacuation planning: the LAPD, LAFD, Port Police, and USCG. Construction and demolition activities would be subject to emergency response and evacuation systems implemented by LAFD.
During construction/demolition activities, the LAFD would require that adequate vehicular access to the proposed Project site and vicinity be provided and maintained. Prior to commencement of construction/demolition activities, all plans would be reviewed by the LAFD to ensure adequate access is maintained throughout construction/demolition. Traffic control equipment would be in place to direct local traffic around the work area. During proposed Project construction, emergency access would be maintained to all surrounding facilities. The proposed Project would incorporate planning to assure that possible interference with emergency response and evacuation plans does not occur. As such, emergency access to these sites would not be adversely impacted during construction.

**CEQA Impact Determination**

Project contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under CEQA, construction/demolition activities would not substantially interfere with an existing emergency response or evacuation plan or increase the risk of injury or death. Based on risk criterion RISK-3, impacts would be less than significant under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Project contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under NEPA, construction/demolition activities would not substantially interfere with an existing emergency response or evacuation plan or increase the risk of injury or death. Based on risk criterion RISK-3, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-4a: Construction of the proposed Project would comply with applicable regulations and policies guiding development within the Port.**

As described in Section 3.8.3.1, List of Regulations, the proposed Project is subject to numerous regulations for development and operation of the proposed facilities. For example, construction and demolition would be completed in accordance with RCRA, HSWA, CERCLA, CCR Title 22 and Title 26, and the California Hazardous Waste Control Law, which would govern proper containment, spill control, and disposal of hazardous waste generated during demolition and construction activities. Implementation
of increased inventory accountability, spill prevention controls, and waste disposal controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Potential releases of hazardous substances during demolition and/or construction would be addressed through the federal Emergency Planning and Right-to-Know Act, which is administered in California by the SERC, and the Hazardous Material Release Response Plans and Inventory Law. In addition, demolition and construction would be completed in accordance with the Los Angeles Municipal Fire Code (LAFC), which regulates the construction of buildings and other structures used to store flammable hazardous materials, and the Los Angeles Municipal Code (Public Works and Property), which regulates the discharge of materials into the sanitary sewer and storm drain. The latter requires the construction of spill-containment structures to prevent the entry of forbidden materials, such as hazardous materials, into sanitary sewers and storm drains. LAHD maintains compliance with these federal, state, and local laws through a variety of methods, including internal compliance reviews, preparation of regulatory plans, and agency oversight. LAHD has implemented various plans and programs to ensure compliance with these regulations. These regulations must be adhered to during design and construction of the proposed Project. Implementation of increased spill prevention controls, spill release notification requirements, and waste disposal controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Construction/demolition activities would be conducted using BMPs in accordance with City guidelines, as detailed in the Development Best Management Practices Handbook (City of Los Angeles, 2002). Applicable BMPs include, but are not limited to, vehicle and equipment fueling and maintenance; material delivery, storage, and use; spill prevention and control; solid and hazardous waste management; and contaminated soil management. Proposed Project plans and specifications would be reviewed by the LAFD for conformance to the LAFC, as a standard practice. Implementation of increased spill prevention controls associated with these BMPs would limit both the frequency and severity of potential releases of hazardous materials.

**CEQA Impact Determination**

Proposed Project construction/demolition would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and applicable hazardous waste laws and regulations. Based on risk criterion RISK-4, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Proposed Project construction/demolition would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements,
and applicable hazardous waste laws and regulations. Based on risk criterion RISK-4, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-5a: Tsunami-induced flooding and seismic events could result in fuel releases from demolition/construction equipment or hazardous substances releases from containers, which in turn would result in risks to persons and/or the environment.**

As discussed in Section 3.5, Geology, there is the potential for a major or great earthquake or a large tsunami to affect the Port. Either event could lead to a fuel spill from demolition and/or construction equipment, as well as from containers of petroleum products and hazardous substances used during the demolition/construction period, if such an event occurs during construction. The volume of spilled fuel is also expected to be relatively low. While there would be fuel-containing equipment present during construction, most equipment is equipped with watertight tanks, with the most likely scenario being the infiltration of water into the tank and fuel combustion chambers and very little fuel spilled. Thus, the volume spilled in the event of a tsunami or other seismic risk would be less than 10,000 gallons, which is considered “slight.”

The Port is subject to diurnal tides, meaning two high tides and two low tides during a 24-hour day. The average of the lowest water level during low tide periods each day is typically set as a benchmark of 0 ft and is defined as Mean Lower-Low Water level (or MLLW). For purposes of this discussion, all proposed Project structures and land surfaces are expressed as height above (or below) MLLW. The mean sea level (MSL) in the Port is +2.8 ft above MLLW (NOAA, 2011c). This height reflects the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch (19 years) and, therefore, reflects the mean of both high and low tides in the Port. The recently developed Port Complex model described in Section 3.5.2 predicts tsunami wave heights with respect to MSL, rather than MLLW and, therefore, can be considered a reasonable average condition under which a tsunami might occur. The Port MSL of +2.8 ft must be considered in comparing projected tsunami run-up (i.e., amount of wharf overtopping and flooding) to proposed wharf height and topographic elevations, which are measured with respect to MLLW.

A reasonably foreseeable scenario for generation of a tsunami or seiche in the Port Complex include the recently developed Port Complex model, which predicts tsunami wave heights of approximately 1.6 ft to 6.0 ft above MSL for the earthquake scenarios and approximately 5.3 ft to 13.7 ft above MSL for the landslide scenario at certain locations within the Port. Incorporating the Port MSL of +2.8 ft, the model predicts tsunami wave heights of a maximum 6.4 ft MLLW for earthquake scenario to 8.7 ft MLLW for worst landslide scenario at the proposed Project site. Because the proposed Project site elevation ranges from 10 to is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur.
While the analysis above considers the greatest reasonably foreseeable seismic risk based on a maximum seismic event, with respect to MSL, a theoretical maximum worst-case wave action from a tsunami would result if the single highest tide predicted over the next 40 years at the Port Complex coincided with the seismic event. The single highest tide predicted over the next 40 years is 7.3 ft above MLLW. This condition is expected to occur less than one percent of the time over this 40-year period. If that very rare condition were to coincide with a maximum tsunami event, the model predicts tsunami wave heights of 8.6 to 12.6 ft above MLLW at the proposed Project site. Because the proposed Project site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. However such an event could result in damage to property or injury related to in-water construction. However, given the limited duration of in-water construction activities and very low likelihood of a worst-case tsunami occurring during construction activities, this scenario is unlikely to occur.

The most likely worst-case tsunami scenario was based partially on a magnitude 7.6 earthquake on the offshore Santa Catalina fault. The recurrence interval for a magnitude 7.5 earthquake along an offshore fault in the Southern California Continental Borderland is about 10,000 years. Similarly, the recurrence interval of a magnitude 7.0 earthquake is about 5,000 years, and the recurrence interval of a magnitude 6.0 earthquake is about 500 years. However, there is no certainty that any of these earthquake events would result in a tsunami, because only about 10 percent of earthquakes worldwide result in a tsunami. In addition, available evidence indicates that tsunamigenic landslides would be extremely infrequent and occur less often than large earthquakes. This suggests recurrence intervals for such landslide events would be longer than the 10,000-year recurrence interval estimated for a magnitude 7.5 earthquake (Moffatt and Nichol, 2007). Thus, the probability of the worst-case combination of a large tsunami and extremely high tides would be less than once in a 100,000-year period.

The coincidence of two unlikely events: the occurrence of the single highest tide predicted over the next 40 years; and the theoretical maximum wave action from a tsunami event occurring during construction is extremely unlikely and such an assumption represents an extremely conservative, worst-case scenario: one that is not required under CEQA or NEPA.

**CEQA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami, impacts would be less than significant as they pertain to hazardous materials spills under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.
NEPA Impact Determination

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami, impacts would be less than significant as they pertain to hazardous materials spills under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed Project site during the construction period.

Risk of Terrorist Actions during Construction

The proposed Project site is an existing container terminal and would not constitute a new potential target for terrorists. The construction of a new wharf and cranes at Berth 306, additional cranes along the existing Berths 302-305, and other upland improvements would support higher container throughput and make the terminal more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on the proposed Project facilities is not likely to appreciably change during construction compared to baseline conditions. It is possible that the increase in construction vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal. Berths 302-306 would be operational during the construction period; therefore, the risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during this period. Such risks are addressed in Section 3.8.4.3.1.2 immediately below.

Consequences of Terrorist Attack

During construction, a terrorist action could block key road access points and waterways and result in economic disruption. A terrorist attack could be catastrophic, especially in terms of potential environmental damage, which could include fuel spills and the release of hazardous materials into the marine environment, with associated degradation of water quality and damage to marine biological resources. These impacts would likely be limited to the area surrounding the point of attack and would be responded to by emergency response providers. A potential fire associated with a terrorist attack could result in short-term impacts to local air quality.

CEQA Impact Determination

The potential for unauthorized access to the terminal site during construction by land, water, and/or air is limited. Existing Port and terminal security measures would counter any potential increase in unauthorized access to the terminal site through the use of
vehicles or vessels. The potential for a terrorist attack that would result in catastrophic consequences (greater than 100 injuries or 10 fatalities) to areas near the proposed Project site during the construction period is considered extraordinarily improbable given the limited construction duration and the limited access to the construction areas. This combination would result in a Risk Code of 4, which is “acceptable,” and impacts would be less than significant under criterion RISK-6.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.

### NEPA Impact Determination

The potential for unauthorized access to the terminal site during construction by land, water, and/or air is limited. Existing Port and terminal security measures would counter any potential increase in unauthorized access to the terminal site through the use of vehicles or vessels. The potential for a terrorist attack that would result in catastrophic consequences (greater than 100 injuries or 10 fatalities) to areas near the proposed Project site during the construction period is considered extraordinarily improbably given the limited construction duration and the limited access to the construction areas. This combination would result in a Risk Code of 4, which is “acceptable,” and impacts would be less than significant under criterion RISK-6.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.

### 3.8.3.1.2 Operational Impacts

**Impact RISK-1b:** Operation of the proposed Project would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

APL Terminal operations would be subject to safety regulations that govern the shipping, transport, storage, and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation),
1. 177 (Highway Transportation), 178 (Packaging Specifications) and 180 (Packaging Maintenance) would all apply to the proposed Project activities.

APL Terminal operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Limited quantities of hazardous materials used at Berths 302-306 that are below the thresholds of Chapter 6.95 would not likely result in a substantial spillage into the environment.

Because projected terminal operations at Berths 302-306 would accommodate approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally.

During the period 2006-2009, which encompasses the baseline period, there were 39 hazardous material spills directly associated with container terminals in the Port Complex, including spills from vessels serving the terminals. This equates to approximately ten spills per year for the entire Port Complex. During this period, the total throughput of the container terminals at both Ports was 31,423,871 TEUs. Therefore, the probability of a spill at a container terminal can be estimated at $1.24 \times 10^{-6}$ per TEU (39 spills divided by 31,423,871 TEUs). This simply means that for every 805,741 TEUs, a spill is probable. This spill probability conservatively represents the baseline hazardous material spill probability because it includes materials that would not be considered a risk to public safety (e.g., perfume spills), but would still be considered an environmental hazard. The probability of spills associated with future operations would be based on the spill probability per TEU times the increase in TEUs under the proposed Project. It should be noted, with respect to hazardous material spills that during this period there were no reported impacts to the public (injuries, fatalities, and evacuations).

Applying the same spill probability ($1.24 \times 10^{-6}$ per TEU) to the projected 2027 Port-wide cargo throughput of 30,439,800 TEUs, the potential spills would increase to approximately 37.8 per year (Tioga, 2009). \(^5\) Because the number of potential spills in

\(^5\) Port-wide TEUs for year 2027 were straight-lined (annual average increase) using the 2025 and 2030 Port-wide TEUs in the 2009 throughput forecast update prepared by Tioga.
2027 is for the overall Port Complex, the 3.9 Project-related spills would be included in this number. The projected number of spills in 2027 is approximately equal to the number of spills that occurred during the 2006-2009 period because the spill risk is related to the level of cargo throughput. Cargo throughput for 2006-2009 was 31,423,871 TEUs and is projected to be 30,439,800 TEUs by 2027.

### CEQA Impact Determination

As of 2009 (CEQA baseline), Berths 302-305 handled approximately 1,128,080 TEUs per year. With build-out of the proposed Project, operations would rise to approximately 3,206,000 TEUs per year when functioning at maximum capacity (in 2027). This would equate to more than a 2.8-fold increase in throughput capacity over CEQA baseline conditions.

Based on the accident history of containers containing hazardous materials at the Port, which includes 39 incidents over a 4-year period (including the baseline year) in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-5.

#### Table 3.8-5: Proposed Project: Existing and Projected Cargo Throughput Volumes at Berths 302-306 and the Port Complex

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>CEQA Project Baseline*</td>
<td>1,128,080</td>
<td>NA</td>
<td>1.4</td>
</tr>
<tr>
<td>Project (2027)</td>
<td>3,206,000</td>
<td>184.2 %</td>
<td>3.9</td>
</tr>
</tbody>
</table>

*Note:* CEQA Baseline – July 2008-June 2009

TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of potential Project-related spills would increase from 1.4 to 3.9 spills per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and/or property damage to occur during one of these frequent accidents, the potential consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potential for adverse public health impacts. Therefore, under CEQA, proposed Project operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of a potential accidental release (including spill from vessels) or explosion of a hazardous substance. CEQA impacts would be less than significant under criterion RISK-1.
**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Under the NEPA baseline, Berths 302-305 could handle up to approximately 2,153,000 TEUs by year 2027. Operation of the proposed Project (Berths 302-306) would handle approximately 3,206,000 TEUs per year when functioning at maximum capacity (in 2027). This would equate to a more than a 1.5-fold increase in throughput capacity over NEPA baseline conditions.

Based on the accident history of containers containing hazardous materials at the Port, which includes 39 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-6.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>NEPA Project Baseline</td>
<td>2,153,000</td>
<td>NA</td>
<td>2.7</td>
</tr>
<tr>
<td>Project (2027)</td>
<td>3,206,000</td>
<td>48.9 %</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Note: TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of potential Project-related spills would increase from 2.7 to 3.9 spills per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the potential consequence of such accidents is classified as “slight”, resulting in a Risk Code of 4, which is “acceptable”. It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under NEPA, proposed Project operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of a potential accidental release (including spill from vessels) or explosion of a hazardous substance. NEPA impacts would be less than significant under criterion RISK-1.
Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-2b: Proposed Project operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.

The proposed Project would include siting facilities that would potentially handle hazardous materials and increase other hazards to the public. These hazards would include the similar containerized hazardous materials that were handled at the proposed Project site under the 2008-2009 baseline conditions, but the volume of hazardous materials under the proposed Project would increase proportionally with the increase in TEU throughput (relative to baseline conditions). Likewise, the increased throughput volume would increase the chance of a fire or explosion at the terminal, as well as hazards associated with container transportation. The handling and storing of increased quantities of hazardous materials would increase the probability of a local accident involving a release, spill, fire, or explosion, which is proportional to the size of the terminal and its throughput as addressed in Impact RISK-1b.

Because projected terminal operations at Berths 302-306 would accommodate approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline, the potential for increased truck transportation-related accidents would also occur. Potential proposed Project-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, potential impacts of increased truck traffic on regional injury and fatality rates are evaluated.

According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous materials truck accident rate is more than twice the hazardous materials truck accident rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents per million vehicle miles and the average hazardous materials truck accident rate was estimated to be 0.32 accidents per million vehicle miles. The hazardous materials truck accident rate is not directly applicable to the proposed Project-related container trucks because such trucks are generally limited to bulk hazardous material carriers. Therefore, to conduct a conservative analysis, the higher accident rate associated with non-hazardous materials trucks was used.

Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the sources of data for this analysis, which primarily examined fatalities associated with vehicle impact and trauma.

Because the occurrence of truck accidents associated with Berths 302-306 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. The possibility exists for increased injury and/or fatality to occur relative to baseline conditions, which is 12.4 (11.7 injury probability + 0.7 fatality probability), as noted in...
Table 3.8-7. The consequence of such accidents is classified as “severe” because the probable number of injuries is more than 10, and results in a Risk Code of 2. An impact with a Risk Code of 2 is classed as undesirable, or significant, and requires additional engineering or administrative controls to mitigate the potentially significant adverse impacts, per the LACFD risk criticality (Table 3.8-4).

The Port is currently developing a Port-wide transportation master plan (TMP) for roadways in and around its facilities. Present and future traffic improvement needs are being determined based on existing and projected traffic volumes. The results will be a TMP providing ideas on what to expect and how to prepare for future traffic volumes. Some of the transportation improvements already under consideration include I-110/SR-47/Harbor Boulevard interchange improvements, Navy Way connector (grade separation) to westbound Seaside Avenue, south Wilmington grade separations, and additional traffic capacity analysis for the Vincent Thomas Bridge. In addition, the Port is working on several strategies to increase rail transport, which will reduce reliance on trucks. These projects would serve to reduce the frequency of truck accidents.

CEQA Impact Determination

Based on these statistics and the projected truck trips for the existing facilities and proposed Project, the potential rate of truck accidents, injuries, and fatalities can be estimated and evaluated.

Potential proposed Project-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the average distance of each trip, and the published accident, injury, and fatality rates, probabilities were estimated as shown in Table 3.8-7.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEQA Project Baseline</td>
<td>1,128,080</td>
<td>40.4</td>
<td>7.0</td>
<td>0.4</td>
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<tr>
<td>Project (2027)</td>
<td>3,003,157</td>
<td>107.4</td>
<td>18.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Increase over CEQA Baseline Conditions</td>
<td>1,875,077</td>
<td>67.1</td>
<td>11.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent (Moser, 2000). This 30-percent reduction in the accident rate would result in fewer injury and/or fatality conditions, as described above. Assuming a 30-percent reduction, the proposed Project’s accident rate would be 75.2
injury rate would be 13.1 and the fatality rate would be 0.83. When compared to the
CEQA baseline condition, the accident rate would increase by 34.8, the injury rate would
increase by 6.1, and the fatality rate would increase by 0.4. The accident rate would be
classified as “moderate” because it is predicted to be less than 10, injuries, and would
result in a Risk Code of 3. An impact with a Risk Code 3 is classified as acceptable with
additional engineering or administrative controls to mitigate the potentially significant
adverse impacts. Additionally, trucks would be inspected at the Roadability facility prior
to leaving the terminal. The purpose of the Roadability facility is to facilitate minor
repairs, inspection, and maintenance of outbound chassis, before they are processed
through the exit gate.

The potential total injuries and fatality probability relative to the baseline would be
reduced with administrative controls, which would not reduce the consequence
classification or Risk Code. Due the implementation of administrative controls, the
proposed Project operations would not be considered to substantially increase the
probable frequency and severity of consequences to people from exposure to health
hazards. Therefore, potential impacts under CEQA would be considered less than
significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Based on these statistics and the projected truck trips for the existing facilities and
proposed Project, the potential rate of truck accidents, injuries and fatalities can be
estimated and evaluated.

Potential Project-related truck accident rates can be estimated based on national average
accident rates and the average number of miles per cargo truck trip. Based on the air
pollutant emission inventory of the Port, it was determined that the average truck trip was
approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the
average distance of each trip, and the published accident, injury and fatality rates,
probabilities were estimated as shown in Table 3.8-8.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
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<tbody>
<tr>
<td>NEPA Project Baseline</td>
<td>1,922,497</td>
<td>68.8</td>
<td>11.9</td>
<td>0.7</td>
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<td>Project (2027)</td>
<td>3,003,157</td>
<td>107.4</td>
<td>18.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Increase over NEPA Baseline Conditions</td>
<td>1,080,660</td>
<td>38.7</td>
<td>6.7</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Note: numbers are rounded
The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent (Moser, 2000). This 30-percent reduction in the accident rate would result in fewer injury and/or fatality conditions, as described above. Assuming a 30-percent reduction, the proposed Project’s accident rate would be 75.2, injury rate would be 13.1 and the fatality rate would be 0.83. When compared to the NEPA baseline condition, the accident rate would increase by 6.4, the injury rate would increase by 1.1, and the fatality rate would increase by 0.1. The accident rate would be classified as “moderate” because it is less than 10, and would result in a Risk Code of 3. An impact with a Risk Code 3 is classed as acceptable with additional engineering or administrative controls to mitigate the potentially significant adverse impacts.

Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal.

The potential total number of injuries would be reduced with administrative controls, which would not reduce the consequence classification to or Risk Code. Due to the implementation of administrative controls, the proposed Project operations would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Therefore, potential impacts under NEPA would be considered less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-3b: Proposed Project operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.**

The proposed Project would optimize terminal operations by improving the existing terminal, extending the existing wharf to add a new berth, adding new cranes, and expanding existing container terminal to accommodate modern container terminal ships, and implementing transportation infrastructure improvements. The Berths 302-306 container terminal would operate similar to other terminals on Terminal Island. The proposed terminal operations would not interfere with any existing contingency plans, because the terminal improvements and related terminal operations would be confined to the Project site, because current activities are consistent with the contingency plans, and the proposed Project would not add any additional activities that would be inconsistent with these plans. In addition, existing oil spill contingency and emergency response plans for the proposed Project site would be revised to incorporate proposed facility and operational changes. Because existing management plans are commonly revised to incorporate terminal operation changes, conflicts with existing contingency and emergency response plans are not anticipated.
APL Terminal personnel, including dock laborers and equipment operators, would be trained in emergency response and evacuation procedures. The proposed Project site would be secured, with access allowed only to authorized personnel. The LAFD and Port Police would be able to provide adequate emergency response services to the proposed Project site. Additionally, proposed Project operations would also be subject to emergency response and evacuation systems implemented by the LAFD, which would review all plans to ensure that adequate access in the proposed Project vicinity is maintained. All proposed Project contractors would be required to adhere to plan requirements.

**CEQA Impact Determination**

The proposed Project would continue to operate as a container terminal and operations would be subject to emergency response and evacuation systems implemented by the LAFD. Thus, proposed Project operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

The proposed Project would continue to operate as a container terminal and operations would be subject to emergency response and evacuation systems implemented by the LAFD. Thus, proposed Project operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-4b: The proposed Project would comply with applicable regulations and policies guiding development within the Port.**

The proposed Project is subject to numerous regulations for operation of the proposed facilities. LAHD has implemented various plans and programs to ensure compliance with these regulations, which must be adhered to during terminal operation. For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. Among other requirements, the proposed Project would conform to the USCG requirement to provide a segregated cargo area for containerized hazardous materials. Terminal cargo operations involving hazardous materials are also governed by the LAFD.
in accordance with regulations of state and federal departments of transportation
(49 CFR Part 176). The transport of hazardous materials in containers on the street and
highway system is regulated by Caltrans procedures and the Standardized Emergency
Management System prescribed under Section 8607 of the California Government Code.
These safety regulations strictly govern the storage of hazardous materials in containers
(i.e., types of materials and size of packages containing hazardous materials). In addition,
any facility constructed in the proposed Project area that is identified as a hazardous
cargo facility or a vulnerable resource, would be required to conform to the RMP. This
includes packaging constraints and the provision of a separate storage area for hazardous
cargo.

LAHD maintains compliance with these state and federal laws through a variety of
methods, including internal compliance reviews, preparation of regulatory plans, and
agency oversight. Most notably, the Port RMP implements development guidelines in an
effort to minimize the danger of accidents to vulnerable resources (LAHD, 1983). This
would be achieved mainly through physical separation as well as through facility design
features, fire protection, and other risk management methods. There are two primary
categories of vulnerable resources people and facilities. People are further divided into
subgroups. The first subgroup is comprised of residences, recreational users, and visitors.
Within the Port setting, residences and recreational users are considered vulnerable
resources. The second subgroup is comprised of workers in high density (i.e., generally
more than 10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and
High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that
are important to the local or regional economy, the national defense, or some major
aspect of commerce. These facilities typically have a large quantity of unique equipment,
a very large working population, and are critical to both the economy and to national
defense. Such facilities in the Port have been generally defined in the Port RMP as the
former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very
high economic value. These facilities include both facility improvements and cargo
in-place, such as container storage areas. However, the determination of a vulnerable
resource is made by the Port and LAFD on a case-by-case basis. Although the Port
generally considers container terminals to be High Value Facilities, these types of
facilities have never been considered vulnerable resources in risk analyses completed by
the Port and LAFD (POLA, 2008). Because container terminals are not considered
vulnerable resources, and because the expansion would not increase the exposure of the
residential or recreational users to increased risk (none are located next to the expansion
area), the proposed Project would not conflict with the RMP.

Proposed Project plans and specifications would be reviewed by the LAFD for
conformance to the LAFC, as a standard practice. Buildings would be equipped with fire
protection equipment as required by the LAFC. Access to all buildings and adequacy of
road and fire lanes would be reviewed by the LAFD to ensure that adequate access and
firefighting features are provided. Proposed Project plans would include an internal
circulation system, code-required features, and other firefighting design elements, as
approved by the LAFD.
Operation of the proposed Project would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. The proposed Project would comply with these laws and regulations, which would ensure that potential hazardous materials handling would occur in an acceptable manner.

CEQA Impact Determination

Operations at the proposed Project site would not conflict with RMP guidelines. Proposed Project plans and specifications would be reviewed by the LAFD for conformance to the LAFC, and operation of the proposed Project would be required to comply with all existing applicable hazardous waste laws and regulations. Therefore, under CEQA, proposed Project operations would comply with applicable regulations and policies guiding development in the Port. Impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Operations at the proposed Project site would not conflict with RMP guidelines. Proposed Project plans and specifications would be reviewed by the LAFD for conformance to the LAFC, and operation of the proposed Project would be required to comply with all existing applicable hazardous waste laws and regulations. Therefore, under NEPA, proposed Project operations would comply with applicable regulations and policies guiding development in the Port. Impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-5b: Tsunami-induced flooding and seismic events could result in fuel releases from ships or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.

As discussed in Section 3.5, Geology, and under RISK-5a above, there is the potential for a large tsunami to affect the Port. Because the proposed Project site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. However, a large tsunami could potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil (up to 5,000 barrels). While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami striking the Port could cause significant ship movement. Most likely,
the vessel would stay secured to the berth and ride out the tsunami, however it is possible
that the motion during a tsunami would cause the mooring lines of the vessel to break
free and the vessel would be set adrift. Under the first scenario, the transmitted energy of
the tsunami wave goes through the vessel moored at berth and into the wharf. Forces
transmitted through the vessel would be transferred to the fendering system of the wharf
and then to the wharf structure. Under the second scenario, a vessel set adrift in the Port
area could have serious consequences from the potential of collision, including a
potential hull breach and possible fuel spill.

Containers of hazardous substances on ships or on berths could similarly be damaged as a
result of a large tsunami. Such damage could result in releases of both hazardous and
non-hazardous cargo to the environment, adversely affecting persons and/or the marine
waters. However, containers carrying hazardous cargo would not necessarily release
their contents in the event of a large tsunami. The DOT regulations (49 CFR Parts 172
through 180) covering hazardous material packaging and transportation would minimize
potential release volumes since packages must meet minimum integrity specifications and
size limitations.

The owner or operators of tanker vessels are required to have an approved Tank Vessel
Response Plan on board and a qualified individual in the U.S. with full authority to
implement removal actions in the event of an oil spill incident, and to contract with the
spill response organizations to carry out cleanup activities in case of a spill. The existing
oil spill response capabilities in the Port are sufficient to isolate spills with containment
booms and recover the maximum possible spill from an oil tanker.

Various studies have shown that double-hull tank vessels have lower probability of
releases when tanker vessels are involved in accidents. Because of these studies, the
USCG issued regulations addressing double-hull requirements for tanker vessels. The
regulations establish a timeline for eliminating single-hull vessels from operating in the
navigable waters or the Exclusive Economic Zone (EEZ) of the U.S. after
January 1, 2010 and double-bottom or double-sided vessels by January 1, 2015. Only
vessels equipped with a double hull, or with an approved double containment system will
be allowed to operate after those times. It is unlikely that single-hull vessels would use
the proposed Project terminal facilities given the current proposed Project schedule and
the planned phase-out of these vessels.

Impacts due to seismically induced tsunamis and seiches are typical for the entire
California coastline and would not be increased by construction of the proposed Project.
Because a major tsunami is not expected during the life of the proposed Project, but could
occur (see Section 3.5, Geology, and RISK-5a above for additional information on the
probability of a major tsunami), the probability of a major tsunami occurring is classified
as “improbable”. The potential consequence of such an event is classified as “moderate,”
resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also
expected to be relatively low because all fuel storage containers at the Project site would
be quite small in comparison to the significance criteria volumes. Given that single-
hulled vessels would not be used, there is a minimal chance of a substantive fuel spill.
While there would be fuel-containing equipment present during operation, most
equipment is equipped with watertight tanks, with the most likely scenario being the
infiltration of water into the tank and fuel combustion chambers and very little fuel
spilled. Further, any spills that occur as a result of a large tsunami would be subject to
Section 3.8 Hazards and Hazardous Materials

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compliance with applicable federal, state, and local laws and regulations governing
emergency response to hazardous material spills as discussed under RISK-5.

CEQA Impact Determination

Based on risk criterion RISK-5 and in light of such a low probability and acceptable risk
of a large tsunami, impacts under CEQA would be less than significant as they pertain to
hazardous materials spills.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

Based on risk criterion RISK-5 and in light of such a low probability and acceptable risk
of a large tsunami, impacts under NEPA would be less than significant as they pertain to
hazardous materials spills.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-6b: A potential terrorist attack could result in adverse
consequences to areas near the proposed Project site during the
operations period.

Risk of Terrorist Actions Associated with Project Operations

The proposed Project site is an existing container terminal and would not constitute a new
potential target for terrorists. The operation of a new wharf and cranes at Berth 306,
additional cranes along the existing Berths 302-305, and other upland improvements
would support higher container throughput and make operations more efficient. These
improvements are not expected to make the existing APL Terminal more attractive to
terrorists.

The probability of a terrorist attack on the proposed Project facilities is not likely to
appreciably change over current conditions. It is possible that the increase in vessel
traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a
successful terrorist attack; however, existing Port security measures would counter this
potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack

The risks associated with terrorism discussed in Section 3.8.2.4 during construction
would apply to the terminal during operations. The potential consequences of a terrorist
action on a container terminal would be catastrophic, specifically in terms of
environmental and economic impacts. A terrorist action involving a container vessel
while at berth may result in a fuel and/or commodity spill and its associated environmental damage. Within the Port, a terrorist action could block key waterways and result in economic disruption. Potential environmental damage would include fuel and/or commodity spills into the marine environment, with associated degradation of water quality and damage to marine biological resources. Container ships typically carry up to 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts would be limited to the area surrounding the point of attack and would be contained by the relevant oil spill response contractor. A potential fire associated with a terrorist attack could result in short-term impacts to local air quality. Such potential impacts to the environment are addressed in specific resource sections including air quality (Section 3.2), biology (Section 3.3), and water quality (Section 3.14).

The consequences associated with the smuggling of WMDs would be substantial in terms of impacts to the environment and public health and safety. However, the consequences of a WMD attack would not be affected by the proposed Project. Furthermore, the likelihood of such an event would not be impacted by proposed Project-related infrastructure or throughput increases, but would depend on the terrorist’s desired outcome and the ability of safeguards, unaffected by the proposed Project, to thwart it. Cargo containers represent only one of many potential methods to smuggle WMD, and with current security initiatives (see Section 3.8.2.5) may be less plausible than other established smuggling routes (e.g., land-based ports of entry, cross-border tunnels, and illegal vessel transportation).

Any increase in the volume of container vessels visiting the proposed Project site would not change the probability or consequences of a terrorist attack on the APL Terminal because the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the APL Terminal compared to Project baseline conditions (under which many of these measures had not been implemented).

**CEQA Impact Determination**

These measures have since improved both terminal and cargo security and have resulted in enhanced cargo screening. Therefore, potential impacts under CEQA associated with a terrorist attack on the APL Terminal are considered less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

These measures have since improved both terminal and cargo security and have resulted in enhanced cargo screening. Therefore, potential impacts under NEPA associated with a potential terrorist attack on the APL Terminal are considered less than significant.
Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

3.8.4.3.2 Alternatives

3.8.4.3.2.1 Alternative 1 – No Project
Under Alternative 1, no further Port action or federal action would occur. The Port would not construct and develop additional backlands, wharves, or terminal improvements. No new cranes would be added, no gate or backland improvements would occur, and no infrastructure for AMP at Berth 306 or automation in the backland area adjacent to Berth 306 would be provided. This alternative would not include any dredging, new wharf construction, or new cranes. The No Project Alternative would not include development of any additional backlands because the existing terminal is berth-constrained and additional backlands would not improve its efficiency.

Under the No Project Alternative, the existing APL Terminal would continue to operate as an approximately 291-acre container terminal. Based on the throughput projections, terminal operations are expected to grow over time as throughput demands increase. Under Alternative 1, the existing APL Terminal would handle approximately 2.15 million TEUs by 2027, which would result in 286 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily one-way truck trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Under Alternative 1, cargo ships that currently berth and load/unload at the Berths 302-305 terminal would continue to do so.

The No Project Alternative would not preclude future improvements to the proposed site. However, any future changes in use or new improvements with the potential to significantly impact the environment would need to be analyzed in a separate environmental document.

3.8.4.3.2.1.1 Construction Impacts

CEQA Impact Determination
Alternative 1 would not result in any construction-related activities associated with development. Because no construction would occur, there would be no construction impacts under CEQA for RISK-1a, RISK-2a, RISK-3a, RISK-4a, RISK-5a, and RISK-6a.

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.
NEPA Impact Determination

The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

3.8.4.3.2.1.2 Operational Impacts

Impact RISK-1b: Operation of Alternative 1 would not increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

CEQA Impact Determination

Under Alternative 1, the APL Terminal site would accommodate a maximum of 2,153,000 TEUs per year when optimized and functioning at maximum capacity (2027). This compares to 1,128,080 TEUs under baseline conditions (2008-2009). Terminal operations would be subject to safety regulations that govern the storage and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to the alternative Project activities.

Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.
Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Limited quantities of hazardous materials used at Berths 302-306 that are below the thresholds of Chapter 6.95 would not likely result in a substantial spillage into the environment.

Because projected terminal operations at Berths 302-305 would accommodate an approximate 1.9-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. During the period 2006-2009, there were 39 hazardous material spills directly associated with container terminals in the Ports of Los Angeles and Long Beach. This equates to approximately ten spills per year for the entire Port Complex. During this period, the total throughput of the container terminals was 31,423,871 TEU. Therefore, the probability of a spill at a container terminal can be estimated at 1.24 x 10^(-6) per TEU (39 spills divided by 31,423,871 TEU). This spill probability conservatively represents the baseline hazardous material spill probability because it includes materials that would not be considered a risk to public safety (e.g., perfume spills) but nevertheless would be considered an environmental hazard. The probability of spills associated with future operations would be based on the spill probability per TEU times the increment in TEUs under the alternative project. It should be noted that during this period there were no reported impacts to the public (injuries, fatalities, and evacuations).

Based on the accident history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-9.

<table>
<thead>
<tr>
<th>Operations</th>
<th>TEUs</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>CEQA Project Baseline*</td>
<td>1,128,080</td>
<td>NA</td>
<td>1.4</td>
</tr>
<tr>
<td>Alternative 1 (2027)</td>
<td>2,153,000</td>
<td>90.1 %</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Note:
*CEQA Baseline – July 2008-June 2009
TEU = 20-ft equivalent unit

Based on the projected increase in TEUs occupying the terminal site, the frequency of potential Alternative 1-related spills would increase from 1.4 to 2.7 spills per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as
“slight”, resulting in a Risk Code of 4, which is “acceptable”. It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under CEQA, Alternative 1 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Impacts under CEQA would be less than significant under criterion RISK-1.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).

Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Impact RISK-2b: Alternative 1 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.

CEQA Impact Determination

Under Alternative 1, the APL Terminal operations would accommodate a maximum of 2,153,000 TEUs per year when optimized and functioning at maximum capacity (in 2027). This compares to 1,128,080 TEUs under baseline conditions (2008-2009). The increased volume would increase the chance of a fire or explosion at the terminal. The handling and storing of increased quantities of hazardous materials would increase the probability of a local accident involving a release, spill, fire, or explosion, which is proportional to the size of the terminal and TEUs at the site as addressed in Impact RISK-1b.

Given the annual number of truck trips, the average distance of each trip, and the published accident, injury and fatality rates, probabilities were estimated as shown in Table 3.8-10.
Table 3.8-10: Alternative 1: Existing and Projected Truck Trips at Berths 302-305

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEQA Project Baseline</td>
<td>1,128,080</td>
<td>40.4</td>
<td>7.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Alternative 1 (2027)</td>
<td>1,922,497</td>
<td>68.8</td>
<td>11.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Increase over CEQA Baseline</td>
<td>794,417</td>
<td>28.4</td>
<td>4.9</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

Because the occurrence of truck accidents associated with Berths 302-305 under Alternative 1 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. Because the possibility exists for increased injury and/or fatality to occur relative to baseline conditions is approximately 5.2 (4.9 injury probability + 0.3 fatality probability), as noted in Table 3.8-7, the consequence of such accidents is classified as “moderate,” because it is less than 10, resulting in a Risk Code of 3. An impact with a Risk Code of 3 is classed as acceptable with additional engineering or administrative controls to mitigate the adverse impacts, per the LACFD risk criticality (Table 3.8-4). The same administrative controls that would occur under the proposed Project would also occur under Alternative 1. Due the implementation of these administrative controls, Alternative 1 operations would not be considered to substantially increase the probable frequency and severity of consequences to people from exposure to health hazards and potential impacts under CEQA would be considered less than significant.

Mitigation Measure
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination
The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).

Mitigation Measures
Mitigation measures are not applicable.

Residual Impacts
An impact determination is not applicable.
Impact RISK-3b: Alternative 1 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.

CEQA Impact Determination

Under Alternative 1, the APL Terminal would continue to operate as a container terminal handling cargo and freight. Therefore, Alternative 1 would not interfere with any existing contingency plans, because the current activities are consistent with the contingency plans and the alternative project would not add any additional activities that would be inconsistent with these plans.

APL Terminal personnel, including laborers and equipment operators, would be trained in emergency response and evacuation procedures. The proposed site would be secured, with access allowed only to those authorized personnel. The LAFD and Port Police would be able to provide adequate emergency response services to the Project site. Additionally, Alternative 1 operations would be subject to emergency response and evacuation systems implemented by the LAFD, which would review all plans to ensure that adequate access in the Project vicinity is maintained. All contractors would be required to adhere to plan requirements.

Because the terminal would continue to be operated as a container terminal, Alternative 1 operations would continue to be subject to emergency response and evacuation systems implemented by the LAFD. Operation of Alternative 1 would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under CEQA.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).

Mitigation Measures
Mitigation measures are not applicable.

Residual Impacts
An impact determination is not applicable.
Impact RISK-4b: Alternative 1 operations would comply with applicable regulations and policies guiding development within the Port.

CEQA Impact Determination

Operation of Alternative 1 would be subject to the same regulations and procedures as described for the proposed Project. LAHD has implemented various plans and programs to ensure compliance with these regulations, which must be adhered to during Alternative 1 operations. For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. Among other requirements, Alternative 1 operations would conform to the USCG requirement to provide a segregated cargo area for containerized hazardous materials. Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System, prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Any facilities identified as either a hazardous cargo facility or a vulnerable resource would be required to conform to the RMP, which includes packaging constraints and the provision of a separate storage area for hazardous cargo.

LAHD maintains compliance with these state and federal laws through a variety of methods, including internal compliance reviews, preparation of regulatory plans, and agency oversight. Most notably, the Port RMP implements development guidelines in an effort to minimize the danger of accidents to vulnerable resources. This would be achieved mainly through physical separation as well as through facility design features, fire protection, and other risk management methods. There are two primary categories of vulnerable resources: people and facilities. People are further divided into subgroups. The first subgroup is comprised of residences, recreational users, and visitors. Within the Port setting, residences and recreational users are considered vulnerable resources. The second subgroup is comprised of workers in high density (i.e., generally more than 10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that are important to the local or regional economy, the national defense, or some major aspect of commerce. These facilities typically have a large quantity of unique equipment, a very large working population, and are critical to both the economy and to national defense. Such facilities in the Port have been generally defined in the Port RMP as the former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very high economic value. These facilities include both facility improvements and cargo in-place, such as container storage areas. However, the determination of a vulnerable resource is made by the Port and LAFD on a case-by-case basis. Although the Port generally considers container terminals to be High Value Facilities, these types of...
facilities have never been considered vulnerable resources in risk analyses completed by the Port and LAFD (POLA, 2008). Because container terminals are not considered vulnerable resources, and because Alternative 1 would not increase the exposure of the residential or recreational users to increased risk, this alternative would not conflict with the RMP.

Plans and specifications of existing facilities have been reviewed by the LAFD for conformance to the LAFC, as a standard practice. Buildings have been equipped with fire protection equipment as required by the LAFC. Access to all buildings and adequacy of road and fire lanes have been reviewed by the LAFD to ensure that adequate access and firefighting features are provided.

Operation of Alternative 1 would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. Operation of Alternative 1 would comply with these laws and regulations, which would ensure that potential hazardous materials handling would occur in an acceptable manner.

Operation of Alternative 1 would not conflict with RMP guidelines or the LAFC and would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under CEQA, Alternative 1 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).

**Mitigation Measures**

Mitigation measures are not applicable.

**Residual Impacts**

An impact determination is not applicable.
Impact RISK-5b: Tsunami-induced flooding and seismic events could result in fuel releases from ships or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.

CEQA Impact Determination

As discussed in Section 3.5, Geology, and under RISK-5a for the proposed Project, there is the potential for a large tsunami to impact the Port. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. A large tsunami would potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami striking the Port could cause significant ship movement and even a hull breach if the ship is pushed against the wharf.

Because a major tsunami is not expected during the life of Alternative 1, but could occur (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional information on the probability of a major tsunami), the probability of a major tsunami occurring is classified as “improbable”. The consequence of such an event is classified as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also expected to be relatively low because all fuel storage containers at the Project site would be quite small in comparison to the significance criteria volumes. Given that single-hulled vessels would not be used, there is a minimal chance of a substantive fuel spill. While there will be fuel-containing equipment present during operation, most equipment is equipped with watertight tanks, with the most likely scenario being the infiltration of water into the tank and fuel combustion chambers and very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).
Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

Impact RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period.

CEQA Impact Determination

Risk of Terrorist Actions Associated with Operations

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The probability of a terrorist attack on the Alternative 1 facilities is not likely to appreciably change over current conditions. It is possible that the increase (over baseline) in vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack

The risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during operations. As with the proposed Project, an increase in the volume of container vessels visiting the terminal would not change the probability or consequences of a terrorist attack on the APL Terminal since the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the APL Terminal compared to Project baseline conditions (under which many of these measures had not yet been implemented). These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts under CEQA associated with a potential terrorist attack on the APL Terminal are considered less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The impacts of the No Project Alternative under NEPA are not required to be analyzed under NEPA. NEPA requires the analysis of a No Federal Action Alternative (see Alternative 2).
Mitigation Measures

Mitigation measures are not applicable.

Residual Impacts

An impact determination is not applicable.

3.8.4.3.2.2 Alternative 2 – No Federal Action

The No Federal Action Alternative would be the same as the NEPA baseline and would include only the activities and impacts likely to occur absent further USACE federal approval but could include improvements that require a local action. Under Alternative 2, no federal action would occur; however, minor terminal improvements in the upland area of the existing APL Terminal would be implemented. These minor upland improvements would include conversion of a portion of the dry container storage area to an additional 200 reefers, associated electrical lines, and installation of utility infrastructure at locations in the existing backland areas. Beyond these minor upland improvements, the Port would not construct and develop additional backlands or wharves. No gate or additional backland improvements would occur, and no in-water features such as dredging or a new berth, wharf extension, or over-water features such as new cranes would occur under the No Federal Action Alternative.

Under the No Federal Action Alternative, the existing APL Terminal would continue to operate as an approximately 291-acre container terminal, and up to approximately 2.15 million TEUs could be handled at the terminal by 2027. Based on the throughput projections, the No Federal Action Alternative would result in 286 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 7,273 peak daily truck trips (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Cargo ships that currently berth and load/unload at the Berths 302-305 terminal would continue to do so.

3.8.4.3.2.2.1 Construction Impacts

CEQA Impact Determination

Operation of Alternative 2 would result in only minor construction-related activities associated with the conversion of dry container storage to refrigerated storage (minor utility development). Because only nominal construction would occur, there would be no significant construction impacts under CEQA for RISK-1a, RISK-2a, RISK-3a, RISK-4a, RISK-5a, and RISK-6a.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no construction impacts under NEPA.
Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

3.8.4.3.2.2 Operational Impacts

Impact RISK-1b: Operation of Alternative 2 would not increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

CEQA Impact Determination

Under Alternative 2, the APL Terminal site would accommodate a maximum of 2,153,000 TEUs per year when optimized and functioning at maximum capacity (in 2027). This compares to 1,128,080 TEUs under baseline conditions (2008-2009).

Terminal operations would be subject to safety regulations that govern the storage and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to the alternative Project activities.

Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials).

Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Based on the limited volumes that could potentially spill, quantities of hazardous materials used
at Berths 302-305 that are below the thresholds of Chapter 6.95 would not likely result in a substantial release into the environment.

Because projected terminal operations at Berths 302-305 would accommodate approximately a 1.9-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally.

Based on the accident history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-11.

<table>
<thead>
<tr>
<th>Operations</th>
<th>TEUs</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>CEQA Project Baseline*</td>
<td>1,128,080</td>
<td>NA</td>
<td>1.4</td>
</tr>
<tr>
<td>Alternative 2 (2027)</td>
<td>2,153,000</td>
<td>90.8 %</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Note:
*CEQA Baseline – July 2008-June 2009
TEU = 20-ft equivalent unit

Based on the projected increase in TEUs occupying the terminal site, the frequency of potential Alternative 2-related spills would increase from 1.4 to 2.7 spills per year. This spill frequency would be classified as “frequent” (between once per year and once in 10 years). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable’. It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under CEQA, Alternative 2 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Impacts under CEQA would be less than significant under criterion RISK-1.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.
NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

Impact RISK-2b: Alternative 2 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.

CEQA Impact Determination

Under Alternative 2, the APL Terminal operations would accommodate a maximum of 2,153,000 TEUs per year when optimized and functioning at maximum capacity (2027). This compares to 1,128,080 TEUs under baseline conditions (2008-2009). The increased volume would increase the chance of a fire or explosion at the terminal. The handling and storing of increased quantities of hazardous materials would increase the probability of a local accident involving a release, spill, fire, or explosion, which is proportional to the size of the terminal and TEUs at the site as addressed in Impact RISK-1b.

Alternative 2 would have the same level of terminal operations and risk as Alternative 1. Therefore, as with Alternative 1, the Risk 2-b impact from Alternative 2 operations would be a Risk Code of 3, which is classed as acceptable with additional engineering or administrative controls to mitigate the adverse impacts, per the LACFD risk criticality (Table 3.8-4). The same administrative controls that would occur under the proposed Project would also occur under Alternative 2. Due the implementation of these administrative controls, Alternative 2 operations would not be considered to substantially increase the probable frequency and severity of consequences to people from exposure to health hazards and potential impacts under CEQA would be considered less than significant.

Mitigation Measure
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.
Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact RISK-3b: Alternative 2 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.

CEQA Impact Determination

Under Alternative 2, the APL Terminal would continue to operate as a container terminal handling cargo and freight. Therefore, Alternative 2 would not interfere with any existing contingency plans, because the current activities are consistent with the contingency plans and the alternative project would not add any additional activities that would be inconsistent with these plans.

APL Terminal personnel, including dock laborers and equipment operators, would be trained in emergency response and evacuation procedures. The Project site would be secured, with access allowed only to authorized personnel. The LAFD and Port Police would be able to provide adequate emergency response services to the Project site. Additionally, Alternative 2 operations would be subject to emergency response and evacuation systems implemented by the LAFD, which would review all plans to ensure that adequate access in the Project vicinity is maintained. All contractors would be required to adhere to plan requirements.

Because the terminal would continue to be operated as a container terminal, Alternative 2 operations would continue to be subject to emergency response and evacuation systems implemented by the LAFD. Alternative 2 operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.
Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact RISK-4b: Alternative 2 operations would comply with applicable regulations and policies guiding development within the Port.

CEQA Impact Determination

Alternative 2 operations would be subject to the same regulations and procedures as described for the proposed Project. LAHD has implemented various plans and programs to ensure compliance with these regulations, which must be adhered to during Alternative 2 operations. For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. Among other requirements, Alternative 2 operations would conform to the USCG requirement to provide a segregated cargo area for containerized hazardous materials. Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System, prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Any facilities identified as either a hazardous cargo facility or a vulnerable resource would be required to conform to the RMP, which includes packaging constraints and the provision of a separate storage area for hazardous cargo.

LAHD maintains compliance with these state and federal laws through a variety of methods, including internal compliance reviews, preparation of regulatory plans, and agency oversight. Most notably, the Port RMP implements development guidelines in an effort to minimize the danger of accidents to vulnerable resources. This would be achieved mainly through physical separation as well as through facility design features, fire protection, and other risk management methods. There are two primary categories of vulnerable resources: people and facilities. People are further divided into subgroups. The first subgroup is comprised of residences, recreational users, and visitors. Within the Port setting, residences and recreational users are considered vulnerable resources. The second subgroup is comprised of workers in high density (i.e., generally more than 10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that are important to the local or regional economy, the national defense, or some major aspect of commerce. These facilities typically have a large quantity of unique equipment, a very large working population, and are critical to both the economy and to national
defense. Such facilities in the Port have been generally defined in the Port RMP as the former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very high economic value. These facilities include both facility improvements and cargo in-place, such as container storage areas. However, the determination of a vulnerable resource is made by the Port and LAFD on a case-by-case basis. Although the Port generally considers container terminals to be High Value Facilities, these types of facilities have never been considered vulnerable resources in risk analyses completed by the Port and LAFD (POLA, 2008). Because container terminals are not considered vulnerable resources, and because Alternative 2 would not increase the exposure of the residential or recreational users to increased risk (none are located next to the expansion area), this alternative would not conflict with the RMP.

Plans and specifications of existing facilities have been reviewed by the LAFD for conformance to the LAFC, as a standard practice. Buildings have been equipped with fire protection equipment as required by the LAFC. Access to all buildings and adequacy of road and fire lanes have been reviewed by the LAFD to ensure that adequate access and firefighting features are provided.

Operation of Alternative 2 would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. Alternative 2 operations would comply with these laws and regulations, which would ensure that potential hazardous materials handling would occur in an acceptable manner.

Alternative 2 operations would not conflict with RMP guidelines or the LAFC and would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under CEQA, Alternative 2 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

There would be no impacts.
Impact RISK-5b: Tsunami-induced flooding and seismic events could result in fuel releases from ships or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.

CEQA Impact Determination

As discussed in Section 3.5, Geology, and under RISK-5a for the proposed Project, there is the potential for a large tsunami to impact the Port. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. A large tsunami would potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami striking the Port could cause significant ship movement and even a hull breach if the ship is pushed against the wharf.

Impacts due to seismically induced tsunamis and seiches are typical for the entire California coastline and would not be increased by Alternative 2 operations. Because a major tsunami is not expected during the life of Alternative 2, but could occur (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional information on the probability of a major tsunami), the probability of a major tsunami occurring is classified as “improbable.” The consequence of such an event is classified as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also expected to be relatively low because all fuel storage containers at the Project site would be quite small in comparison to the significance criteria volumes. Given that single-hulled vessels would not be used, there is a minimal chance of a substantive fuel spill. While there would be fuel-containing equipment present during operation, most equipment is equipped with watertight tanks, with the most likely scenario being the infiltration of water into the tank and fuel combustion chambers and very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination
The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.
Mitigation Measures

No mitigation is required.

Residual Impacts

There would be no impacts.

Impact RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period.

CEQA Impact Determination

Risk of Terrorist Actions Associated with Operations

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on the Alternative 2 facilities is not likely to appreciably change over current conditions. A terrorist attack at the proposed site would be catastrophic, especially in terms of economic and environmental impacts. It is possible that the increase (over baseline) in vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack

The risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during operations. As with the proposed Project, an increase in the volume of container vessels visiting the terminal would not change the probability or consequences of a terrorist attack on the APL Terminal since the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the APL Terminal compared to Project baseline conditions (under which many of these measures had not yet been implemented). These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts under CEQA associated with a potential terrorist attack on the APL Terminal are considered less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.
NEPA Impact Determination

The No Federal Action Alternative would have the same conditions as the NEPA baseline, as explained in Section 2.6.2 in Chapter 2; therefore, there would be no incremental difference between Alternative 2 and the NEPA baseline. As a consequence, Alternative 2 would result in no impact under NEPA.

Mitigation Measures
No mitigation is required.

Residual Impacts
There would be no impacts.

3.8.4.3.2.3 Alternative 3 – Reduced Project: Four New Cranes

Under Alternative 3, four new cranes would be added to the existing wharf along Berths 302-305 and only minor improvements to the existing APL Terminal would be made (utility infrastructure and conversion of dry container storage to reefers). No other upland terminal improvements would be constructed. The existing terminal is berth-constrained, and adding the additional four cranes would improve the terminal’s efficiency.

The total acreage of backlands under Alternative 3 would remain at approximately 291 acres, which would be less than the proposed Project. This alternative would not include the extension of the existing wharf, construction of a new berth, dredging, or the relocation and improvement of various gates and entrance lanes.

Based on the throughput projections, TEU throughput under Alternative 3 would be less than the proposed Project, with an expected throughput of approximately 2.58 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, this alternative would result in up to 8,725 peak daily truck trips (2,306,460 annual), and up to 2,544 annual one-way rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

3.8.4.3.2.3.1 Construction Impacts

Impact RISK-1a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

Construction equipment associated with Alternative 3 could result in accidental spills of oil, gas, or fluids during normal usage or during refueling, resulting in potential health and safety impacts to not only construction personnel, but to people and property occupying operational portions of the Project area. BMPs and Los Angeles Municipal Code regulations (Chapter 5, Section 57, Divisions 4 and 5; Chapter 6, Article 4) would govern construction activities. Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of materials and the size of packages containing hazardous materials) and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. In addition, standard BMPs would be used during construction and demolition activities to minimize runoff of contaminants, in compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity (Water...
Quality Order 99-08-DWQ) and Project-specific SWPPP (see Section 3.14, Water Quality, Sediments, and Oceanography, for more information).

Implementation of construction and demolition standards, including BMPs, would minimize the potential for an accidental release of petroleum products and/or hazardous materials from construction-related accidents and/or explosion during construction/demolition activities at Berths 302-305.

Because construction/demolition-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term and localized, mainly due to the fact that the volume in any single vehicle is generally less than 50 gallons and fuel trucks are limited to 10,000 gallons or less, the potential consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

As discussed above, construction and demolition would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts would be less than significant under CEQA.

- **Mitigation Measures**
  - No mitigation is required.

- **Residual Impacts**
  - Impacts would be less than significant.

**NEPA Impact Determination**

As discussed above, under NEPA, construction and demolition activities associated with Alternative 3 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under NEPA would be less than significant.

- **Mitigation Measures**
  - No mitigation is required.

- **Residual Impacts**
  - Impacts would be less than significant.

**Impact RISK-2a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards.**

Risk of potentially upset impacts during construction would be reduced compared to those described for the proposed Project because Alternative 3 would result in less construction. Under Alternative 3, no new wharf or terminal expansion would occur, but four new cranes would be added. Additionally, the potential for construction equipment to spill oil, gas, or fluids during normal usage or during refueling would be reduced.
Therefore, relative to the proposed Project, Alternative 3 would reduce the potential for an accidental release of hazardous materials and/or contamination of soil or water and would reduce the potential for an accidental release from a fire or explosion during construction activities.

Construction and demolition activities would be conducted using BMPs and in accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Divisions 4 and 5; Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI, such as limiting the types of materials stored and size of packages containing hazardous materials, would limit both the frequency and severity of potential releases of hazardous materials, thus minimizing potential health hazards and/or contamination of soil or water during construction/demolition activities. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Impacts from contamination of soil or water during construction/demolition activities would apply to not only construction personnel, but to people and property occupying operational portions of the Project area, as Berths 302-305 would be operating during construction activities.

Standard policies regulate the storage of hazardous materials including the types of materials, size of packages containing hazardous materials, and the separation of containers containing hazardous materials. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Implementation of these preventative measures would minimize the potential for spills to impact members of the public, including on-site employees, and limit the adverse impacts of contamination to a relatively small area. Because construction/demolition-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term and localized, the potential consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

As discussed above, construction/demolition activities under Alternative 3 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts would be less than significant under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.
NEPA Impact Determination
As discussed above, construction/demolition activities under Alternative 3 would not
substantially increase the probable frequency and severity of consequences to people
from exposure to health hazards. Based on risk criterion RISK-2, impacts would be less
than significant under NEPA.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-3a: Construction/demolition activities would not
substantially interfere with an existing emergency response or
evacuation plan or increase the risk of injury or death.

Emergency response and evacuation planning is the responsibility of the LAPD, LAFD,
Port Police, and USCG. Construction and demolition activities would be subject to
emergency response and evacuation systems implemented by LAFD. During
construction/demolition activities, the LAFD would require that adequate vehicular
access to the site be provided and maintained. Prior to commencement of
construction/demolition activities, all plans would be reviewed by the LAFD to ensure
adequate access is maintained throughout construction/demolition.

CEQA Impact Determination
Alternative 3 contractors would be required to adhere to all LAFD emergency response
and evacuation regulations, ensuring compliance with existing emergency response plans.
Therefore, under CEQA, construction/demolition activities associated with Alternative 3
would not substantially interfere with an existing emergency response or evacuation plan
or increase risk of injury or death. Based on risk criterion RISK-3, impacts under CEQA
would be less than significant.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination
Alternative 3 contractors would be required to adhere to all LAFD emergency response
and evacuation regulations, ensuring compliance with existing emergency response plans.
Therefore, under NEPA, construction/demolition activities associated with Alternative 3
would not substantially interfere with an existing emergency response or evacuation plan
or increase risk of injury or death. Based on risk criterion RISK-3, impacts under NEPA
would be less than significant.
**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-4a: Alternative 3 construction/demolition would comply with applicable regulations and policies guiding development within the Port.**

As described in Section 3.8.3.1, List of Regulations, Alternative 3 would be subject to numerous regulations for development and operation of the proposed facilities.

**CEQA Impact Determination**

As with the proposed Project, because Alternative 3 construction/demolition would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all applicable hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under CEQA under criterion RISK-4.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

As with the proposed Project, because Alternative 3 construction/demolition would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all applicable hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under NEPA based on criterion RISK-4.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-5a: Tsunami-induced flooding and seismic events could result in fuel releases from demolition/construction equipment or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.**

As discussed in Section 3.5, Geology, and RISK-5a under the proposed Project, there is the potential for a major or great earthquake or large tsunami to affect the Port. Either event could lead to a fuel spill from demolition and/or construction equipment, as well as
from containers of petroleum products and hazardous substances used during the
demolition/construction period, if such an event occurs during construction. Unfinished
structures are especially vulnerable to damage from earthquakes and tsunamis during the
construction period.

Impacts due to major or great earthquakes and seismically induced tsunamis and seiches
are typical for the entire California coastline and would not be increased by construction
of Alternative 3. Because the proposed site elevation is approximately 15 ft above
MLLW, localized tsunami-induced flooding would not occur. However such an event
could result in damage to property or injury related to in-water construction.

The coincidence of two unlikely events: the occurrence of the single highest tide
predicted over the next 40 years; and the theoretical maximum wave action from a
tsunami event occurring during construction is extremely unlikely and such an
assumption represents an extremely conservative, worst-case scenario: one that is not
required under CEQA or NEPA.

**CEQA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons,
which is considered “slight.” In light of such a low probability and acceptable risk of a
large tsunami or other seismic risk, impacts under CEQA associated with Alternative 3
would be less than significant as they pertain to hazardous materials spills under criterion
RISK-5.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**NEPA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons,
which is considered “slight.” In light of such a low probability and acceptable risk of a
large tsunami or other seismic risk, impacts under NEPA associated with Alternative 3
would be less than significant as they pertain to hazardous materials spills under criterion
RISK-5.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.
Impact RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period.

Risk of Terrorist Actions during Construction

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The construction of additional cranes along the existing Berths 302-305 and minor upland improvements would support higher container throughput and improve the terminal’s efficiency. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on Alternative 3 facilities is not likely to appreciably change during construction compared to baseline conditions. It is possible that the increase in construction vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal. The APL Terminal would be operational during the construction period; therefore, risks associated with terrorism during operations will also apply to the terminal during this period.

Consequences of Terrorist Attack during Construction

During construction, a terrorist action could block key road access points and waterways and result in economic disruption. A terrorist attack would be catastrophic, especially in terms of the potential environmental damage such as fuel and/or commodity spills into the marine environment, with associated degradation of water quality and damage to marine biological resources, and economic impacts. Container ships typically carry up to 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts would likely be limited to the area surrounding the point of attack and would be responded to by emergency response providers. A potential fire associated with a terrorist attack could result in short-term impacts to local air quality.

CEQA Impact Determination

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts under CEQA would be less than significant under criterion RISK-6.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

This combination would result in a Risk Code of 4 that is “acceptable”; therefore, impacts under NEPA would be less than significant based on criterion RISK-6.
3 Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.8.4.3.2.3.2 Operational Impacts

Impact RISK-1b: Operation of Alternative 3 would not increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

Terminal operations would be subject to safety regulations that govern the shipping, transport, storage and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications) and 180 (Packaging Maintenance) would all apply to Alternative 3 activities.

Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to as RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Limited quantities of hazardous materials used at Berths 302-306 that are below the thresholds of Chapter 6.95 would not likely result in a substantial spillage into the environment.
CEQA Impact Determination

As of 2008-2009 (CEQA baseline), APL Terminal handled approximately 1,128,080 TEUs per year. Throughput of 2,583,000 TEUs per year in association with Alternative 3, when functioning at maximum capacity, would equate to just over a 2-fold increase in throughput capacity compared to the CEQA baseline.

Because projected terminal operations under Alternative 3 would accommodate approximately a 2.3-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. Based on the accident history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-12.

Table 3.8-12: Alternative 3: Existing and Projected Cargo Throughput Volumes at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>CEQA Project Baseline*</td>
<td>1,128,080</td>
<td>NA</td>
<td>1.4</td>
</tr>
<tr>
<td>Alternative 3 (2027)</td>
<td>2,583,000</td>
<td>128.9 %</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Note:
*CEQA Baseline – July 2008-June 2009
TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of potential spills related to Alternative 3 would increase from 1.4 to 3.2 spills per year, or about 2 spills per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under CEQA, Alternative 3 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Impacts under CEQA would be less than significant under criterion RISK-1.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.
NEPA Impact Determination

The APL Terminal operations under Alternative 3 could handle approximately 2,583,000 TEUs per year when optimized and functioning at maximum capacity (2027), as compared to the NEPA baseline (2027) of 2,153,000 TEUs. Throughput of 2,583,000 TEUs per year in association with Alternative 3, when functioning at maximum capacity, would equate to an approximate 20 percent increase in throughput capacity compared to the NEPA baseline.

Because projected terminal operations under Alternative 3 would accommodate an approximate 1.2-fold increase in containerized cargo compared to the NEPA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. Based on the accident history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year period in the entire Port complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-13.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>NEPA Project Baseline</td>
<td>2,153,000</td>
<td>NA</td>
<td>2.7</td>
</tr>
<tr>
<td>Alternative 3 (2027)</td>
<td>2,583,000</td>
<td>19.9 %</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Note: TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of potential spills related to Alternative 3 would increase from 2.7 to 3.2 spills per year, or less that one spill per year. This spill frequency would be classified as “periodic” (between once per year and once in 10 years). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “slight”, resulting in a Risk Code of 4, which is “acceptable”. It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under NEPA, Alternative 3 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on risk criterion RISK-1, impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.
Impact RISK-2b: Alternative 3 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.

Alternative 3 would potentially handle hazardous materials and increase other hazards to the public. The handling and storing of increased quantities of hazardous materials (in containers) would increase the probability of a local accident involving a release, spill, fire or explosion, which is proportional to the size of the terminal and its throughput as was addressed in Impact RISK 1b.

Because projected terminal operations at Berths 302-306 would accommodate over a 2.3-fold increase and 1.2-fold increase in containerized cargo compared to the CEQA baseline and NEPA baseline, respectively, the potential for increased truck transportation-related accidents would also occur. Potential alternative-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, the potential impact of increased truck traffic on regional injury and fatality rates are evaluated.

According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous materials truck accident rate is more than twice the hazardous materials truck accident rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents per million vehicle miles and the average hazardous materials truck accident rate was estimated to be 0.32 accidents per million vehicle miles. The hazardous materials truck accident rate is not directly applicable to the alternative Project container trucks since they are generally limited to bulk hazardous material carriers. Therefore, for this analysis, the higher accident rate associated with non-hazardous materials trucks was used.

Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the sources of data for this analysis, which primarily examined fatalities associated with vehicle impact and trauma.

Based on these statistics and the projected truck trips for the existing facilities and Alternative 3, the potential rate of truck accidents, injuries, and fatalities can be estimated and evaluated.

Because the occurrence of truck accidents associated with Berths 302-305 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. Because the possibility exists for injury and/or fatality to occur during one of these frequent accidents as noted in Table 3.8-11, the consequence of such accidents is classified as “moderate”, resulting in a Risk Code of 3. An impact with a Risk Code of 3 is classed as acceptable with additional engineering or administrative controls to mitigate the potentially significant adverse impacts, per the LACFD risk criticality (Table 3.8-4).

The Port is currently developing a Port-wide TMP for roadways in and around its facilities. Present and future traffic improvement needs are being determined based on existing and projected traffic volumes. The results will be a TMP providing ideas on what to expect and how to prepare for future traffic volumes. Some of the transportation improvements already under consideration include: I-110/SR-47/Harbor Boulevard...
interchange improvements; Navy Way connector (grade separation) to westbound
Seaside Avenue; south Wilmington grade separations; and additional traffic capacity
analysis for the Vincent Thomas Bridge. In addition, the Port is working on several
strategies to increase rail transport, which will reduce reliance on trucks. These projects
would serve to reduce the frequency of truck accidents.

**CEQA Impact Determination**

Potential alternative-related truck accident rates can be estimated based on national
average accident rates and the average number of miles per cargo truck trip. Based on
the air pollutant emission inventory of the Port, it was determined that the average truck
trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
trips, the average distance of each trip, and the published accident, injury and fatality
rates, probabilities were estimated as shown in Table 3.8-14.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEQA Baseline</td>
<td>1,128,080</td>
<td>40.4</td>
<td>7.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Alternative 3 (2027)</td>
<td>2,306,461</td>
<td>82.5</td>
<td>14.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Increase over CEQA baseline conditions</td>
<td>1,178,381</td>
<td>42.2</td>
<td>7.3</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port is also currently phasing out older trucks as part of its Clean Truck Program,
and the TWIC program will help identify and exclude truck drivers that lack the proper
licensing and training. The phasing out of older trucks would reduce the probability of
accidents that occur as a result of mechanical failure by approximately 10 percent
(ADL, 1990). Proper driver training, or more specifically, the reduction in the number of
drivers that do not meet minimum training specifications, would further reduce potential
accidents by approximately 30 percent. Additionally, trucks would be inspected at the
existing Roadability facility prior to leaving the terminal. The potential total injuries
would be reduced due to these administrative controls. Therefore, Alternative 3
operations would not substantially increase the probable frequency and severity of
consequences to people from exposure to health hazards, and potential impacts under
CEQA would be considered less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Potential alternative-related truck accident rates can be estimated based on national
average accident rates and the average number of miles per cargo truck trip. Based on
the air pollutant emission inventory of the Port, it was determined that the average truck
trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the average distance of each trip, and the published accident, injury and fatality rates, probabilities were estimated as shown in Table 3.8-15.

Table 3.8-15: Alternative 3: Existing and Projected Truck Trips at Berths 302-305

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEPA Baseline</td>
<td>1,922,497</td>
<td>68.8</td>
<td>11.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Alternative 3 (2027)</td>
<td>2,306,461</td>
<td>82.5</td>
<td>14.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Increase over NEPA baseline conditions</td>
<td>383,964</td>
<td>13.7</td>
<td>2.4</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port is also currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the existing Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to these administrative controls. Therefore, operations activities under Alternative 3 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on criterion RISK-2, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-3b: Alternative 3 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.**

Alternative 3 would optimize terminal operations by increasing the number of cranes and making the existing operations more efficient. The APL Terminal would operate as a container terminal similar to other terminal facilities in the Port area; therefore, proposed terminal operations would not interfere with any existing contingency plans, because the current activities are consistent with the contingency plans and the alternative Project would not add any additional activities that would be inconsistent with these plans. In addition, existing oil spill contingency and emergency response plans for the site would be revised to incorporate proposed facility and operational changes. Because existing management plans are commonly revised to incorporate terminal operation changes, conflicts with existing contingency and emergency response plans are not anticipated.
APL Terminal personnel, including dock laborers and equipment operators, would be trained in emergency response and evacuation procedures. The site would be secured, with access allowed only to authorized personnel. The LAFD and Port Police would be able to provide adequate emergency response services to the site. Additionally, Alternative 3 operations would also be subject to emergency response and evacuation systems implemented by the LAFD, which would review all plans to ensure that adequate access in the Project vicinity is maintained. All Alternative 3 contractors would be required to adhere to plan requirements.

CEQA Impact Determination

Alternative 3 would operate as a container terminal similar to other terminal operations in the Port area, and Alternative 3 operations would be subject to emergency response and evacuation systems implemented by the LAFD. Thus, Alternative 3 operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 3 would operate as a container terminal similar to other terminal operations in the Port area, and Alternative 3 operations would be subject to emergency response and evacuation systems implemented by the LAFD. Thus, Alternative 3 operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under NEPA based on criterion RISK-3.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-4b: Alternative 3 operations would comply with applicable regulations and policies guiding development within the Port.

Alternative 3 operations would be subject to numerous regulations for operation of the proposed facilities. LAHD has implemented various plans and programs to ensure compliance with these regulations, which must be adhered to during terminal operation. For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety
of life and protection of property and the environment during marine transportation of
hazardous materials.

Among other requirements, Alternative 3 operations would conform to the USCG
requirement to provide a segregated cargo area for containerized hazardous materials.
Terminal cargo operations involving hazardous materials are also governed by the LAFC
in accordance with regulations of state and federal departments of transportation
(49 CFR Part 176). The transport of hazardous materials in containers on the street and
highway system is regulated by Caltrans procedures and the Standardized Emergency
Management System prescribed under Section 8607 of the California Government Code.
These safety regulations strictly govern the storage of hazardous materials in containers
(i.e., types of materials and size of packages containing hazardous materials). In addition,
any facility constructed at the site, identified as either a hazardous cargo facility or a
vulnerable resource, would be required to conform to the RMP, which includes
packaging constraints and the provision of a separate storage area for hazardous cargo.

LAHD maintains compliance with these state and federal laws through a variety of
methods, including internal compliance reviews, preparation of regulatory plans, and
agency oversight. Most notably, the Port RMP implements development guidelines in an
effort to minimize the danger of accidents to vulnerable resources. This would be
achieved mainly through physical separation as well as through facility design features,
fire protection, and other risk management methods. There are two primary categories of
vulnerable resources: people and facilities. People are further divided into subgroups.
The first subgroup is comprised of residences, recreational users, and visitors. Within the
Port setting, residences and recreational users are considered vulnerable resources. The
second subgroup is comprised of workers in high density (i.e., generally more than
10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and
High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that
are important to the local or regional economy, the national defense, or some major
aspect of commerce. These facilities typically have a large quantity of unique equipment,
a very large working population, and are critical to both the economy and to national
defense. Such facilities in the Port have been generally defined in the Port RMP as the
former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very
high economic value. These facilities include both facility improvements and cargo
in-place, such as container storage areas. However, the determination of a vulnerable
resource is made by the Port and LAFC on a case-by-case basis. Although the Port
generally considers container terminals to be High Value Facilities, these types of
facilities have never been considered vulnerable resources in risk analyses completed by
the Port and LAFC (POLA, 2008). Because container terminals are not considered
vulnerable resources, and because Alternative 3 would not increase the exposure of the
residential or recreational users to increased risk (none are located next to the expansion
area), this alternative would not conflict with the RMP.

Alternative 3 plans and specifications will be reviewed by the LAFC for conformance to
the LAFC, as a standard practice. Buildings would be equipped with fire protection
equipment as required by the LAFC. Access to all buildings and adequacy of road and
fire lanes would be reviewed by the LAFC to ensure that adequate access and firefighting
features are provided. Plans would include an internal circulation system, code-required features, and other firefighting design elements, as approved by the LAFD.

Operation of Alternative 3 would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. Alternative 3 operations would comply with these laws and regulations, which would ensure that potential hazardous materials handling would occur in an acceptable manner.

**CEQA Impact Determination**

Alternative 3 operations would not conflict with RMP guidelines. Alternative 3 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 3 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under CEQA, Alternative 3 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 3 operations would not conflict with RMP guidelines. Alternative 3 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 3 would be required to comply with all applicable existing hazardous waste laws and regulations. Operations under Alternative 3 would comply with applicable regulations and policies guiding development in the Port. Therefore, impacts under NEPA would be less than significant based on criterion RISK-4.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-5b: Tsunami-induced flooding and seismic events could result in fuel releases from ships or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.**

As discussed in Section 3.5, Geology, and under RISK-5a for the proposed Project, there is the potential for a large tsunami to impact the Port. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. A large tsunami would potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami
striking the Port could cause significant ship movement and even a hull breach if the ship
is pushed against the wharf.

Because a major tsunami is not expected during the life of Alternative 3, but could occur
(see Section 3.5, Geology, and RISK-5a under the proposed Project for additional
information on the probability of a major tsunami), the probability of a major tsunami
occurring is classified as “improbable”. The consequence of such an event is classified
as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of
spilled fuel is also expected to be relatively low because all fuel storage containers at the
Project site would be quite small in comparison to the significance criteria volumes.
Given that single-hulled vessels would not be used, there is a minimal chance of a
substantive fuel spill. While there will be fuel-containing equipment present during
operation, most equipment is equipped with watertight tanks, with the most likely
scenario being the infiltration of water into the tank and fuel combustion chambers and
very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be
less than 10,000 gallons, which is considered “slight.” In light of such a low probability
and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would
be less than significant as they pertain to hazardous materials spills under criterion
RISK-5.

CEQA Impact Determination

Thus, the volume spilled in the event of a tsunami would likely be less than
10,000 gallons, which is considered minor. In light of such a low probability and
acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated
with Alternative 3 would be less than significant as they pertain to hazardous materials
spills under criterion RISK-5.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

Thus, the volume spilled in the event of a tsunami would likely be less than
10,000 gallons, which is considered minor. In light of such a low probability and
acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated
with Alternative 3 would be less than significant as they pertain to hazardous materials
spills under criterion RISK-5.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.
Impact RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period.

Risk of Terrorist Actions Associated with Operations

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The operation of additional cranes along the existing Berths 302-305 and minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on the alternative Project facilities is not likely to appreciably change over current conditions. It is possible that the increase in vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack

The risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during operations. As with the proposed Project, an increase in the volume of container vessels visiting the Alternative 3 terminal would not change the probability or consequences of a terrorist attack on the APL Terminal since the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the APL Terminal compared to Project baseline conditions (under which many of these measures had not yet been implemented).

CEQA Impact Determination

These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts under CEQA associated with a potential terrorist attack on the APL Terminal are considered less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts under NEPA associated with a potential terrorist attack on the APL Terminal are considered less than significant under criterion RISK-6.
Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.8.4.3.2.4 Alternative 4 – Reduced Project: No New Wharf

Under Alternative 4, six cranes would be added to the existing terminal wharf at Berths 302-305, and the 41-acre fill area adjacent to the APL Terminal would be developed as container yard backlands. EMS would relinquish the 30 acres of backlands under space assignment. EMS would not add the nine acres of land behind Berth 301 or the two acres at the main gate to its permit. Because no new wharf would be constructed at Berth 306, the 41-acre backland would be operated using traditional methods and would not be expected to transition to use of automated equipment. As the existing wharf would not be extended to create Berth 306, no dredging would occur.

Under Alternative 4, the total terminal acreage would be 302 acres, which is less than the proposed Project. Based on the throughput projections, TEU throughput would be less than the proposed Project, with an expected throughput of approximately 2.78 million TEUs by 2027. This would translate into 338 annual ship calls at Berths 302-305. In addition, Alternative 4 would result in up to 9,401 peak daily truck trips (2,485,050 annual), and up to 2,563 annual one-way rail trip movements. Configuration of all other landside terminal components (i.e., Main Gate improvements) would be identical to the proposed Project.

3.8.4.3.2.4.1 Construction Impacts

Impact RISK-1a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

Construction activities from Alternative 4 would include development of 41-acre backland area, construction of six additional cranes, and other landside components as described in Chapter 2. Construction equipment could result in accidental spills of oil, gas, or fluids during normal usage or during refueling, resulting in potential health and safety impacts to not only construction personnel, but to people and property occupying operational portions of the Project area. BMPs and Los Angeles Municipal Code regulations (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4) would govern construction activities. Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of materials and the size of packages containing hazardous materials) and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. In addition, standard BMPs would be used during construction and demolition activities to minimize runoff of contaminants, in compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ) and Project-specific SWPPP (see Section 3.14, Water Quality, Sediments, and Oceanography, for more information).

Implementation of construction standards, including BMPs, would minimize the potential for an accidental release of petroleum products and/or hazardous materials and/or
explosion during construction activities at Berths 302-306. Because construction-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term and localized, mainly due to the fact that the volume in any single vehicle is generally less than 50 gallons and fuel trucks are limited to 10,000 gallons or less, the potential consequence of such accidents is classified as “slight” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

As discussed above, under CEQA, construction activities associated with Alternative 4 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under CEQA would be less than significant.

- **Mitigation Measures**
  - No mitigation is required.

- **Residual Impacts**
  - Impacts would be less than significant.

**NEPA Impact Determination**

As discussed above, under NEPA, construction activities associated with Alternative 4 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under NEPA would be less than significant.

- **Mitigation Measures**
  - No mitigation is required.

- **Residual Impacts**
  - Impacts would be less than significant.

**Impact RISK-2a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards.**

Risk of upset impacts during construction would be reduced compared to those described for the proposed Project because Alternative 4 would result in less construction. Under this alternative, the potential for construction equipment to spill oil, gas, or fluids during normal usage or during refueling would be reduced. Therefore, relative to the proposed Project, Alternative 4 would reduce the potential for an accidental release of hazardous materials and/or contamination of soil or water and would reduce the potential for an accidental release from a fire or explosion during construction activities.

Construction activities would be conducted using BMPs and in accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds provided in
Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI, such as limiting the types of materials stored and size of packages containing hazardous materials, would limit both the frequency and severity of potential releases of hazardous materials, thus minimizing potential health hazards and/or contamination of soil or water during construction activities. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Impacts from contamination of soil or water during construction activities would apply to not only construction personnel, but to people and property occupying operational portions of the Project area, as APL Terminal would be operating during construction activities.

Several standard policies regulate the storage of hazardous materials including the types of materials, size of packages containing hazardous materials, and the separation of containers containing hazardous materials. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Implementation of these preventative measures would minimize the potential for spills to affect members of the public, including on-site employees, and limit the adverse impacts of contamination to a relatively small area. Because construction-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short term and localized, the potential consequence of such accidents is classified as “slight” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

As discussed above, under CEQA, construction activities under Alternative 4 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts under CEQA from Alternative 4 would be less than significant.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**NEPA Impact Determination**

As discussed above, under NEPA, construction activities under Alternative 4 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts under NEPA from Alternative 4 would be less than significant.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.
Impact RISK-3a: Construction/demolition activities would not substantially interfere with an existing emergency response or evacuation plan or increase the risk of injury or death.

Emergency response and evacuation planning is the responsibility of the LAPD, LAFD, Port Police, and USCG. Construction activities would be subject to emergency response and evacuation systems implemented by LAFD. During construction activities, the LAFD would require that adequate vehicular access to the site be provided and maintained. Prior to commencement of construction activities, all plans would be reviewed by the LAFD to ensure adequate access is maintained throughout construction/demolition.

CEQA Impact Determination

Alternative 4 contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under CEQA, construction activities associated with Alternative 4 would not substantially interfere with an existing emergency response or evacuation plan or increase risk of injury or death. Based on risk criterion RISK-3, impacts under CEQA would be less than significant.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

Alternative 4 contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under NEPA, construction activities associated with Alternative 4 would not substantially interfere with an existing emergency response or evacuation plan or increase risk of injury or death. Based on risk criterion RISK-3, impacts under NEPA would be less than significant.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-4a: Alternative 4 construction/demolition would comply with applicable regulations and policies guiding development within the Port.

As described in Section 3.8.3.1, List of Regulations, Alternative 4 would be subject to numerous regulations for development and operation of the proposed facilities.
CEQA Impact Determination
As with the proposed Project, because Alternative 4 construction would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under CEQA under criterion RISK-4.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.

NEPA Impact Determination
As with the proposed Project, because Alternative 4 construction would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under NEPA under criterion RISK-4.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.

**Impact RISK-5a: Tsunami-induced flooding and seismic events**
could result in fuel releases from demolition/construction equipment or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.

As discussed in Section 3.5, Geology, and RISK-5a under the proposed Project, there is the potential for a major or great earthquake or large tsunami to affect the Port. Either event could lead to a fuel spill from demolition and/or construction equipment, as well as from containers of petroleum products and hazardous substances used during the demolition/construction period, if such an event occurs during construction. Unfinished structures are especially vulnerable to damage from earthquakes and tsunamis during the construction period.

Impacts due to major or great earthquakes and seismically induced tsunamis and seiches are typical for the entire California coastline and would not be increased by construction of Alternative 4. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. However such an event could result in damage to property or injury related to in-water construction.

The coincidence of two unlikely events: the occurrence of the single highest tide predicted over the next 40 years; and the theoretical maximum wave action from a tsunami event occurring during construction is extremely unlikely and such an
assumption represents an extremely conservative, worst-case scenario: one that is not required under CEQA or NEPA.

**CEQA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated with Alternative 4 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated with Alternative 4 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period.**

**Risk of Terrorist Actions during Construction**

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The construction of additional cranes along the existing Berths 302-305, development of additional backlands, and minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on Alternative 4 facilities is not likely to appreciably change during construction compared to baseline conditions. It is possible that the increase in construction vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal. The APL Terminal would be operational during the construction period; therefore, risks
associated with terrorism during operations will also apply to the terminal during the
construction period.

Consequences of Terrorist Attack during Construction

During construction, a terrorist action could block key road access points and waterways
and result in economic disruption. A terrorist attack would be catastrophic, especially in
terms of the potential environmental damage caused from events such as fuel and/or
commodity spills into the marine environment, with associated degradation of water
quality and damage to marine biological resources, and economic impacts. Container
ships typically carry up to 5,000 barrels of fuel oil but would not be full when arriving at
the Port. These impacts would likely be limited to the area surrounding the point of
attack and would be responded to by emergency response providers. A potential fire
associated with a terrorist attack could result in short-term impacts to local air quality.

The potential for unauthorized access to the terminal site during construction by land,
water, and/or air is limited. Existing Port and terminal security measures would counter
any potential increase in unauthorized access to the terminal site through the use of
vehicles or vessels. The potential for a terrorist attack that would result in adverse
consequences (greater than 100 injuries or 10 fatalities) to areas near the proposed
terminal site during the construction period is considered highly improbable given the
limited construction duration and the limited access to the construction areas.

CEQA Impact Determination

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts
under CEQA would be less than significant under criterion RISK-6.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts
under NEPA would be less than significant under criterion RISK-6.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.
3.8.4.3.2.4.2 Operational Impacts

Impact RISK-1b: Operation of Alternative 4 would not increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

Throughput of 2,783,000 TEUs per year in association with Alternative 4, when functioning at maximum capacity, would equate to just over a 2.5-fold increase in throughput capacity over CEQA baseline and an increase of 29.3 percent in throughput capacity over NEPA baseline. Terminal operations would be subject to safety regulations that govern the shipping, transport, storage and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG, and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to Alternative 4 activities.

Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to as RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Based on the limited volumes that could potentially spill, quantities of hazardous materials used at Berths 302-305 that are below the thresholds of Chapter 6.95 would not likely result in a substantial release into the environment.

Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

CEQA Impact Determination

As of 2008-2009 (CEQA baseline), the APL Terminal handled approximately 1,128,080 TEUs per year. Because projected terminal operations under Alternative 4 would accommodate approximately a 2.5-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous
Based on the projected increase in TEUs, the frequency of potential Alternative 4-related spills would increase from 1.5 to 3.5 spills per year, or 2 spills per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable.” It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, Alternative 4 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Impacts under CEQA would be less than significant under criterion RISK-1.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The APL Terminal operations under Alternative 4 could handle approximately 2,783,000 TEUs per year when optimized and functioning at maximum capacity (2027), as compared with the NEPA baseline (2027) of 2,153,000 TEUs.

Because projected terminal operations under Alternative 4 would accommodate approximately a 29.3 percent increase in containerized cargo compared to the NEPA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. Based on the accident history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year
period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-17.

**Table 3.8-17: Alternative 4: Existing and Projected Cargo Throughput Volumes at Berths 302-305**

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>NEPA Project Baseline</td>
<td>2,153,000</td>
<td>NA</td>
<td>2.7</td>
</tr>
<tr>
<td>Alternative 4 (2027)</td>
<td>2,783,000</td>
<td>29.3 %</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Note: TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of potential Alternative 4-related spills would increase from 2.7 to 3.5 spills per year, or less than one spill per year. This increase in spill frequency would be classified as “periodic” (between once per year and once in 10 years). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable”. It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under NEPA, Alternative 4 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Impacts under NEPA would be less than significant under criterion RISK-1.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-2b: Alternative 4 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.**

Alternative 4 would include siting facilities that would potentially handle hazardous materials and increase other hazards to the public. The handling and storing of increased quantities of hazardous materials would increase the probability of a local accident involving a release, spill, fire or explosion, which is proportional to the size of the terminal and its throughput as was addressed in Impact Risk 1b.
Because projected terminal operations at Berths 302-305 would accommodate approximately a 2.5-fold increase and a 1.3-fold increase in containerized cargo compared to the CEQA baseline and NEPA baseline, respectively, the potential for increased truck transportation-related accidents would also occur. Potential alternative-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, the potential impact of increased truck traffic on regional injury and fatality rates have been evaluated.

According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous materials truck accident rate is more than twice the hazardous materials truck accident rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents per million vehicle miles and the average hazardous materials truck accident rate was estimated to be 0.32 accidents per million vehicle miles. The hazardous materials truck accident rate is not directly applicable to the alternative Project container trucks since they are generally limited to bulk hazardous materials carriers. Therefore, for this analysis, the higher accident rate associated with non-hazardous materials trucks was used.

Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the sources of data for this analysis, which primarily examined fatalities associated with vehicle impact and trauma.

Based on these statistics and the projected truck trips for the existing facilities and Alternative 4, the potential rate of truck accidents, injuries, and fatalities can be estimated and evaluated.

The Port is currently developing a Port-wide TMP for roadways in and around its facilities. Present and future traffic improvement needs are being determined based on existing and projected traffic volumes. The results will be a TMP providing ideas on what to expect and how to prepare for future traffic volumes. Some of the transportation improvements already under consideration include: I-110/SR-47/ Harbor Boulevard interchange improvements; Navy Way connector (grade separation) to westbound Seaside Avenue; south Wilmington grade separations; and additional traffic capacity analysis for the Vincent Thomas Bridge. In addition, the Port is working on several strategies to increase rail transport, which will reduce reliance on trucks. These projects would serve to reduce the frequency of truck accidents.

**CEQA Impact Determination**

Potential alternative-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the average distance of each trip, and the published accident, injury and fatality rates, probabilities were estimated as shown in Table 3.8-18.
Table 3.8-18: Alternative 4: Existing and Projected Truck Trips at Berths 302-305

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEQA Baseline</td>
<td>1,128,080</td>
<td>40.4</td>
<td>7.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Alternative 4 (2027)</td>
<td>2,485,049</td>
<td>88.9</td>
<td>15.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Increase over CEQA baseline conditions</td>
<td>1,356,969</td>
<td>48.5</td>
<td>8.4</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

Because the occurrence of truck accidents associated with Berths 302-305 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. Because the possibility exists for injury and/or fatality to occur during one of these frequent accidents as noted in Table 3.8-13, the consequence of such accidents is classified as “moderate,” resulting in a Risk Code of 3. An impact with a Risk Code of 3 is classed as acceptable with additional engineering or administrative controls to mitigate the potentially significant adverse impacts, per the LACFD risk criticality (Table 3.8-4).

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). In addition, proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to administrative controls. Therefore, Alternative 4 operations would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards and potential impacts under CEQA would be considered less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Potential alternative-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the average distance of each trip, and the published accident, injury and fatality rates, probabilities were estimated as shown in Table 3.8-19.
Table 3.8-19: Alternative 4: Existing and Projected Truck Trips at Berths 302-305

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEPA Baseline</td>
<td>1,922,497</td>
<td>68.8</td>
<td>11.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Alternative 4 (2027)</td>
<td>2,485,049</td>
<td>88.9</td>
<td>15.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Increase over NEPA baseline</td>
<td>562,552</td>
<td>20.1</td>
<td>3.5</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

Because the occurrence of truck accidents associated with Berths 302-305 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. Because the possibility exists for injury and/or fatality to occur during one of these frequent accidents as noted in Table 3.8-23, the consequence of such accidents is classified as “moderate”, resulting in a Risk Code of 3. An impact with a Risk Code of 3 is classed as acceptable with additional engineering or administrative controls to mitigate the potentially significant adverse impacts, per the LACFD risk criticality (Table 3.8-4).

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). In addition, proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to administrative controls. Therefore, operational activities under Alternative 4 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-3b: Alternative 4 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.**

Alternative 4 would optimize terminal operations by developing 41 acres of backland, additional cranes, and other landslide terminal components as described under the proposed Project in Chapter 2. The APL Terminal would continue to operate as a container terminal; therefore, proposed terminal operations would not interfere with any existing contingency plans, because the current activities are consistent with the contingency plans and this alternative would not add any additional activities that would be inconsistent with these plans. In addition, existing oil spill contingency and
emergency response plans for the site would be revised to incorporate proposed facility and operational changes. Because existing management plans are commonly revised to incorporate terminal operation changes, conflicts with existing contingency and emergency response plans are not anticipated.

APL Terminal personnel, including dock laborers and equipment operators, would be trained in emergency response and evacuation procedures. The site would be secured, with access allowed only to authorized personnel. The LAFD and Port Police would be able to provide adequate emergency response services to the site. Additionally, Alternative 4 operations would also be subject to emergency response and evacuation systems implemented by the LAFD, which would review all plans to ensure that adequate access in the Project vicinity is maintained. All Alternative 4 contractors would be required to adhere to plan requirements.

**CEQA Impact Determination**

Alternative 4 operations would continue to be operated as a container terminal similar to other terminal facilities in the Port area, and would be subject to emergency response and evacuation systems implemented by the LAFD. Thus, Alternative 4 operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under CEQA.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 4 operations would continue to be operated as a container terminal similar to other terminal facilities in the Port area, and would be subject to emergency response and evacuation systems implemented by the LAFD. Thus, Alternative 4 operations would not interfere with any existing emergency response or emergency evacuation plans or increase the risk of injury or death. Therefore, impacts would be less than significant under NEPA.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**Impact RISK-4b: Alternative 4 operations would comply with applicable regulations and policies guiding development within the Port.**

Alternative 4 operations would be subject to numerous regulations for operation of the proposed facilities. LAHD has implemented various plans and programs to ensure compliance with these regulations, which must be adhered to during terminal. For
example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
HMSD, under the jurisdiction of the federal Department of Homeland Security
(33 CFR Part 126), which develops standards and industry guidance to promote the safety
of life and protection of property and the environment during marine transportation of
hazardous materials.

Among other requirements, Alternative 4 operations would conform to the USCG
requirement to provide a segregated cargo area for containerized hazardous materials.
Terminal cargo operations involving hazardous materials are also governed by the LAFD
in accordance with regulations of state and federal departments of transportation
(49 CFR Part 176). The transport of hazardous materials in containers on the street and
highway system is regulated by Caltrans procedures and the Standardized Emergency
Management System prescribed under Section 8607 of the California Government Code.
These safety regulations strictly govern the storage of hazardous materials in containers
(i.e., types of materials and size of packages containing hazardous materials). In addition,
any facility constructed at the site, identified as either a hazardous cargo facility or a
vulnerable resource, would be required to conform to the RMP, which includes
packaging constraints and the provision of a separate storage area for hazardous cargo.

LAHD maintains compliance with these state and federal laws through a variety of
methods, including internal compliance reviews, preparation of regulatory plans, and
agency oversight. Most notably, the Port RMP implements development guidelines in an
effort to minimize the danger of accidents to vulnerable resources. This would be
achieved mainly through physical separation as well as through facility design features,
fire protection, and other risk management methods. There are two primary categories of
vulnerable resources: people and facilities. People are further divided into subgroups.
The first subgroup is comprised of residences, recreational users, and visitors. Within the
Port setting, residences and recreational users are considered vulnerable resources. The
second subgroup is comprised of workers in high density (i.e., generally more than
10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and
High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that
are important to the local or regional economy, the national defense, or some major
aspect of commerce. These facilities typically have a large quantity of unique equipment,
a very large working population, and are critical to both the economy and to national
defense. Such facilities in the Port have been generally defined in the Port RMP as the
former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very
high economic value. These facilities include both facility improvements and cargo
in-place, such as container storage areas. However, the determination of a vulnerable
resource is made by the Port and LAFD on a case-by-case basis. Although the Port
generally considers container terminals to be High Value Facilities, these types of
facilities have never been considered vulnerable resources in risk analyses completed by
the Port and LAFD (POLA, 2008). Because container terminals are not considered
vulnerable resources, and because Alternative 4 would not increase the exposure of the
residential or recreational users to increased risk (none are located next to the expansion
area), this alternative would not conflict with the RMP.
Alternative 4 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, as a standard practice. Buildings would be equipped with fire protection equipment as required by the LAFC. Access to all buildings and adequacy of road and fire lanes would be reviewed by the LAFD to ensure that adequate access and firefighting features are provided. Plans would include an internal circulation system, code-required features, and other firefighting design elements, as approved by the LAFD.

Operation of Alternative 4 would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. Alternative 4 operations would comply with these laws and regulations, which would ensure that potential hazardous materials handling would occur in an acceptable manner.

**CEQA Impact Determination**

Alternative 4 operations would not conflict with RMP guidelines. Alternative 4 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 4 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under CEQA, Alternative 4 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 4 operations would not conflict with RMP guidelines. Alternative 4 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 4 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under NEPA, Alternative 4 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under NEPA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-5b: Tsunami-induced flooding and seismic events could result in fuel releases from ships or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.**

As discussed in Section 3.5, Geology, and under RISK-5a for the proposed Project, there is the potential for a large tsunami to affect the Port. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not
A large tsunami would potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami striking the Port could cause significant ship movement and even a hull breach if the ship is pushed against the wharf.

Because a major tsunami is not expected during the life of Alternative 4, but could occur (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional information on the probability of a major tsunami), the probability of a major tsunami occurring is classified as “improbable”. The consequence of such an event is classified as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also expected to be relatively low because all fuel storage containers at the Project site would be quite small in comparison to the significance criteria volumes. Given that single-hulled vessels would not be used, there is a minimal chance of a substantive fuel spill. While there will be fuel-containing equipment present during operation, most equipment is equipped with watertight tanks, with the most likely scenario being the infiltration of water into the tank and fuel combustion chambers and very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**CEQA Impact Determination**

While there will be fuel containing equipment present during operation, most equipment is equipped with watertight tanks, with the main problem being the infiltration of water into the tank and fuel combustion chambers. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered minor. In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated with Alternative 4 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

While there will be fuel containing equipment present during operation, most equipment is equipped with watertight tanks, with the main problem being the infiltration of water into the tank and fuel combustion chambers. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered minor. In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated with Alternative 4 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.
Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period.

Risk of Terrorist Actions Associated with Operations
The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The operation of additional cranes along the existing Berths 302-305, use of additional backlands for container storage, and other minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on the alternative Project facilities is not likely to appreciably change over current conditions. It is possible that the increase in vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack
The risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during operations. As with the proposed Project, an increase in the volume of container vessels visiting the Alternative 4 terminal would not change the probability or consequences of a terrorist attack on the APL Terminal since the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the APL Terminal compared to Project baseline conditions (under which many of these measures had not yet been implemented).

CEQA Impact Determination
The measures discussed above have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts associated with a potential terrorist attack on the APL Terminal are considered less than significant under CEQA.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.
NEPA Impact Determination

The measures discussed above have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts associated with a potential terrorist attack on the APL Terminal are considered less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.8.4.3.2.5 Alternative 5 – Reduced Project: No Space Assignment

Alternative 5 would improve the existing terminal, construct a new wharf (1,250 ft) creating Berth 306, add 12 new cranes to Berths 302-306, add 56 acres for backlands, wharfs, and gates improvements, construct electrification infrastructure in the backlands behind Berths 305-306, and relinquish the 30 acres currently on space assignment. This alternative would be the same as the proposed Project, except that EMS would relinquish the 30 acres of backlands under space assignment. As with the proposed Project, the 41-acre backlands and Berth 306 under Alternative 5 could utilize traditional container operations, electric automated operations, or a combination of the two over time.

Dredging of the Pier 300 Channel along the new wharf at Berth 306 (approximately 20,000 cy) would occur, with the dredged material beneficially reused, and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2).

Under Alternative 5, the total gross terminal acreage would be 317 acres, which is less than the proposed Project. TEU throughput would be the same as the proposed Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This would translate into 390 annual ship calls at Berths 302-306. In addition, this alternative would result in up to 11,361 peak daily truck trips (3,003,157 annual) including drayage, and up to 2,953 annual one-way rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

3.8.4.3.2.5.1 Construction Impacts

Impact RISK-1a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

Construction activities from Alternative 5 would include development of 41-acre backland area, construction of a new wharf at Berth 306, 12 additional cranes at Berths 302-306, and other landside components as described in Chapter 2. Construction equipment could result in accidental spills of oil, gas, or fluids during normal usage or during refueling, resulting in potential health and safety impacts to not only construction personnel, but to people and property occupying operational portions of the Project area. BMPs and Los Angeles Municipal Code regulations (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4) would govern construction activities. Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of
materials and the size of packages containing hazardous materials) and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. In addition, standard BMPs would be used during construction and demolition activities to minimize runoff of contaminants, in compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity (Water Quality Order 99-08-DWQ) and Project-specific SWPPP (see Section 3.14, Water Quality, Sediments, and Oceanography, for more information).

Implementation of construction standards, including BMPs, would minimize the potential for an accidental release of petroleum products and/or hazardous materials and/or explosion during construction activities at Berths 302-306. Because construction-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term and localized, mainly due to the fact that the volume in any single vehicle is generally less than 50 gallons and fuel trucks are limited to 10,000 gallons or less, the potential consequence of such accidents is classified as “slight” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

Therefore, under CEQA, construction activities associated with Alternative 5 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Therefore, under NEPA, construction activities associated with Alternative 5 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under NEPA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-2a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards.**

Risk of upset impacts during construction would be slightly reduced compared to those described for the proposed Project. Under Alternative 5, the potential for construction equipment to spill oil, gas, or fluids during normal usage or during refueling would be
reduced. Therefore, relative to the proposed Project, this alternative would reduce the potential for an accidental release of hazardous materials and/or contamination of soil or water and would reduce the potential for an accidental release from a fire or explosion during construction activities.

Construction activities would be conducted using BMPs and in accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI, such as limiting the types of materials stored and size of packages containing hazardous materials, would limit both the frequency and severity of potential releases of hazardous materials, thus minimizing potential health hazards and/or contamination of soil or water during construction activities. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Impacts from contamination of soil or water during construction activities would apply to not only construction personnel, but to people and property occupying operational portions of the Project area, as APL Terminal would be operating during construction activities.

Several standard policies regulate the storage of hazardous materials including the types of materials, size of packages containing hazardous materials, and the separation of containers containing hazardous materials. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Implementation of these preventative measures would minimize the potential for spills to affect members of the public, including on-site employees, and limit the adverse impacts of contamination to a relatively small area. Because construction-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short term and localized, the potential consequence of such accidents is classified as “slight” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

Therefore, under CEQA, construction activities under Alternative 5 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts under CEQA from Alternative 5 would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Therefore, under NEPA, construction activities under Alternative 5 would not substantially increase the probable frequency and severity of consequences to people
from exposure to health hazards. Based on risk criterion RISK-2, impacts under NEPA from Alternative 5 would be less than significant.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.

**Impact RISK-3a: Construction/demolition activities would not substantially interfere with an existing emergency response or evacuation plan or increase the risk of injury or death.**

Emergency response and evacuation planning is the responsibility of the LAPD, LAFD, Port Police, and USCG. Construction activities would be subject to emergency response and evacuation systems implemented by LAFD. During construction activities, the LAFD would require that adequate vehicular access to the site be provided and maintained. Prior to commencement of construction activities, all plans would be reviewed by the LAFD to ensure adequate access is maintained throughout construction/demolition.

**CEQA Impact Determination**

Alternative 5 contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under CEQA, construction activities associated with Alternative 5 would not substantially interfere with an existing emergency response or evacuation plan or increase risk of injury or death. Based on risk criterion RISK-3, impacts under CEQA would be less than significant.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 5 contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under NEPA, construction activities associated with Alternative 5 would not substantially interfere with an existing emergency response or evacuation plan or increase risk of injury or death. Based on risk criterion RISK-3, impacts under NEPA would be less than significant.

**Mitigation Measures**
No mitigation is required.

**Residual Impacts**
Impacts would be less than significant.
Impact RISK-4a: Alternative 5 construction/demolition would comply with applicable regulations and policies guiding development within the Port.

As described in Section 3.8.3.1, List of Regulations, Alternative 5 would be subject to numerous regulations for development and operation of the proposed facilities.

CEQA Impact Determination

As with the proposed project, because Alternative 5 construction would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under CEQA under criterion RISK-4.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

As with the proposed Project, because Alternative 5 construction would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under NEPA under criterion RISK-4.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-5a: Tsunami-induced flooding and seismic events could result in fuel releases from demolition/construction equipment or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.

As discussed in Section 3.5, Geology, and RISK-5a under the proposed Project there is the potential for a major or great earthquake or large tsunami to affect the Port. Either event could lead to a fuel spill from demolition and/or construction equipment, as well as from containers of petroleum products and hazardous substances used during the demolition/construction period, if such an event occurs during construction. Unfinished structures are especially vulnerable to damage from earthquakes and tsunamis during the construction period.

Impacts due to major or great earthquakes and seismically induced tsunamis and seiches are typical for the entire California coastline and would not be increased by construction of Alternative 5. Because the proposed site elevation is approximately 15 ft above
MLLW, localized tsunami-induced flooding would not occur. However such an event could result in damage to property or injury related to in-water construction.

The coincidence of two unlikely events: the occurrence of the single highest tide predicted over the next 40 years; and the theoretical maximum wave action from a tsunami event occurring during construction is extremely unlikely and such an assumption represents an extremely conservative, worst-case scenario: one that is not required under CEQA or NEPA.

CEQA Impact Determination
The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated with Alternative 5 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

Mitigation Measures
No mitigation is required.
Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination
The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated with Alternative 5 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

Mitigation Measures
No mitigation is required.
Residual Impacts
Impacts would be less than significant.

Impact RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period.

Risk of Terrorist Actions during Construction
The proposed site is an existing container terminal with substantial throughput, as described in Chapter 2, and would not constitute a new potential target for terrorists. The construction of a new wharf and cranes at Berth 306, additional cranes along the existing Berths 302-305, development of new backlands, and minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.
The probability of a terrorist attack on Alternative 5 facilities is not likely to appreciably change during construction compared to baseline conditions. It is possible that the increase in construction vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal. The APL Terminal would be operational during the construction period; therefore, risks associated with terrorism during operations will also apply to the terminal during the construction period.

**Consequences of Terrorist Attack during Construction**

During construction, a terrorist action could block key road access points and waterways and result in economic disruption. A terrorist attack would be catastrophic, resulting in environmental damage that could include fuel and/or commodity spills into the marine environment, with associated degradation of water quality and damage to marine biological resources, and economic impacts. Container ships typically carry up to 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts would likely be limited to the area surrounding the point of attack and would be responded to by emergency response providers. A potential fire associated with a terrorist attack could result in short-term impacts to local air quality.

The potential for unauthorized access to the terminal site during construction by land, water, and/or air is limited. Existing Port and terminal security measures would counter any potential increase in unauthorized access to the terminal site through the use of vehicles or vessels. The potential for a terrorist attack that would result in adverse consequences (greater than 100 injuries or 10 fatalities) to areas near the proposed terminal site during the construction period is considered highly improbable given the limited construction duration and the limited access to the construction areas.

**CEQA Impact Determination**

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts under CEQA would be less than significant under criterion RISK-6.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**NEPA Impact Determination**

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts under NEPA would be less than significant under criterion RISK-6.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.
3.8.4.3.2.5.2 Operational Impacts

**Impact RISK-1b:** Operation of Alternative 5 would not increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.

Terminal operations would be subject to safety regulations that govern the shipping, transport, storage and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to the alternative Project activities.

Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to as RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Based on the limited volumes that could potentially spill, quantities of hazardous materials used at Berths 302-306 that are below the thresholds of Chapter 6.95 would not likely result in a substantial release into the environment.

**CEQA Impact Determination**

As of 2008-2009 (CEQA baseline), the APL Terminal handled approximately 1,128,080 TEUs per year. APL Terminal operations under Alternative 5 could handle approximately 3,206,000 TEUs per year when optimized and functioning at maximum capacity (2027). Because projected terminal operations under Alternative 5 would accommodate approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. Based on the accident
history at the Port of containers containing hazardous materials, which includes 39
incidents over a 4-year period in the entire Port Complex, the frequency of Project-related
spills can be estimated as shown in Table 3.8-20.

Table 3.8-20: Alternative 5: Existing and Projected Cargo Throughput
Volumes at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>CEQA Project Baseline*</td>
<td>1,128,080</td>
<td>NA</td>
<td>1.5</td>
</tr>
<tr>
<td>Alternative 5 (2027)</td>
<td>3,206,000</td>
<td>184.2 %</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note:
*CEQA Baseline – July 2008-June 2009
TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of spills potentially related to
Alternative 5 would increase from 1.5 to 4.0 spills per year, or greater than two per year.
This spill frequency would be classified as “frequent” (greater than once per year).
Because, based on history, a slight possibility exists for injury and or property damage to
occur during one of these frequent accidents, the consequence of such accidents is
classified as “slight”, resulting in a Risk Code of 4 that is “acceptable”. It should be
noted that there were no impacts to the public from any of the hazardous materials spills
that were reported during the 2006-2009 period. Compliance with applicable federal,
state, and local laws and regulations governing the transport of hazardous materials and
emergency response to hazardous material spills, as described above, would minimize the
potentials for adverse public health impacts. Therefore, Alternative 5 operations would
not substantially increase the probable frequency and severity of consequences to people
or property as a result of an accidental release or explosion of a hazardous substance.
Impacts under CEQA would be less than significant under criterion RISK-1.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination
APL Terminal operations under Alternative 5 could handle approximately
3,206,000 TEUs per year when optimized and functioning at maximum capacity (2027),
as compared to the NEPA baseline (2027) of 2,153,000 TEUs.

Because projected terminal operations under Alternative 5 would accommodate
approximately a 1.5-fold increase in containerized cargo compared to the NEPA baseline,
the potential for an accidental release or explosion of hazardous materials would also be
expected to increase proportionally. Based on the accident history at the Port of
containers containing hazardous materials, which includes 39 incidents over a 4-year
period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-21.

Table 3.8-21: Alternative 5: Existing and Projected Cargo Throughput Volumes at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>NEPA Project Baseline</td>
<td>2,153,000</td>
<td>NA</td>
<td>2.7</td>
</tr>
<tr>
<td>Alternative 5 (2027)</td>
<td>3,206,000</td>
<td>48.9 %</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note: TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of spills potentially related to Alternative 5 would increase from 2.7 to 4.0 spills per year, or about once per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “moderate”, resulting in a Risk Code of 3 that is “acceptable”. It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, operational activities under Alternative 5 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on risk criterion RISK-1, impacts would be less than significant under NEPA.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-2b: Alternative 5 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.

Alternative 5 includes the siting of facilities that potentially handle hazardous materials and increase other hazards to the public. The handling and storing of hazardous materials would increase the probability of a local accident involving a release, spill, fire or explosion, which is proportional to the size of the terminal and its throughput as was addressed in Impact RISK 1b.

According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous materials truck accident rate is more than twice the hazardous materials truck accident rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents
per million vehicle miles and the average hazardous materials truck accident rate was estimated to be 0.32 accidents per million vehicle miles. The hazardous materials truck accident rate is not directly applicable to the alternative Project container trucks since they are generally limited to bulk hazardous materials carriers. Therefore, for this analysis, the higher accident rate associated with non-hazardous materials trucks was used.

Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the sources of data for this analysis, which primarily examined fatalities associated with vehicle impact and trauma.

Based on these statistics and the projected truck trips for the existing facilities and Alternative 5, the potential rate of truck accidents, injuries, and fatalities can be estimated and evaluated.

Because the occurrence of truck accidents associated with Berths 302-306 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. Because the possibility exists for injury and/or fatality to occur during one of these frequent accidents as noted in Table 3.8-15, the consequence of such accidents is classified as “moderate,” resulting in a Risk Code of 3. An impact with a Risk Code of 3 is classed as acceptable with additional engineering or administrative controls to mitigate the potentially significant adverse impacts, per the LACFD risk criticality (Table 3.8-4).

The Port is currently developing a Port-wide TMP for roadways in and around its facilities. Present and future traffic improvement needs are being determined based on existing and projected traffic volumes. The results will be a TMP providing ideas on what to expect and how to prepare for future traffic volumes. Some of the transportation improvements already under consideration include: I-110/SR-47/Harbor Boulevard interchange improvements; Navy Way connector (grade separation) to westbound Seaside Avenue; south Wilmington grade separations; and additional traffic capacity analysis for the Vincent Thomas Bridge. In addition, the Port is working on several strategies to increase rail transport, which will reduce reliance on trucks. These projects would serve to reduce the frequency of truck accidents.

**CEQA Impact Determination**

Because projected terminal operations at Berths 302-306 would accommodate approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline, the potential for increased truck transportation-related accidents would also occur. Potential alternative-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, the potential impact of increased truck traffic on regional injury and fatality rates is evaluated.

Potential alternative-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
trips, the average distance of each trip, and the published accident, injury and fatality rates, the following probabilities were estimated as shown in Table 3.8-22.

Table 3.8-22: Alternative 5: Existing and Projected Truck Trips at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEQA Baseline</td>
<td>1,128,080</td>
<td>40.4</td>
<td>7.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Alternative 5 (2027)</td>
<td>3,003,157</td>
<td>107.4</td>
<td>18.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Increase over CEQA Baseline</td>
<td>1,875,077</td>
<td>67.0</td>
<td>11.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to administrative controls. Therefore, Alternative 5 operations would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards and potential impacts under CEQA would be considered less than significant.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination
Because projected terminal operations at Berths 302-306 would accommodate approximately a 1.5-fold increase in containerized cargo compared to the NEPA baseline, the potential for increased truck transportation-related accidents would also occur. Potential alternative-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, the potential impact of increased truck traffic on regional injury and fatality rates is evaluated.

Potential alternative-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the average distance of each trip, and the published accident, injury and fatality rates, the following probabilities were estimated as shown in Table 3.8-23.
Table 3.8-23: Alternative 5: Existing and Projected Truck Trips at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEPA Baseline</td>
<td>1,922,497</td>
<td>68.8</td>
<td>11.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Alternative 5 (2027)</td>
<td>3,003,157</td>
<td>107.4</td>
<td>18.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Increase over NEPA baseline</td>
<td>1,080,660</td>
<td>38.7</td>
<td>6.7</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to administrative controls. Therefore, operational activities under Alternative 5 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-3b: Alternative 5 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.

Alternative 5 would optimize terminal operations by increasing backland capacity and constructing a new wharf, new cranes, and other landside terminal components similar to those under the proposed Project, as described in Chapter 2. The APL Terminal would operate as a container terminal similar to other terminals in the Port area; therefore, proposed terminal operations would not interfere with any existing contingency plans, because the current activities are consistent with the contingency plans and the alternative Project would not add any additional activities that would be inconsistent with these plans. In addition, existing oil spill contingency and emergency response plans for the site would be revised to incorporate proposed facility and operational changes. Because existing management plans are commonly revised to incorporate terminal operation changes, conflicts with existing contingency and emergency response plans are not anticipated.

Berth 302-306 facilities personnel, including dock laborers and equipment operators, would be trained in emergency response and evacuation procedures. The site would be
secured, with access allowed only to authorized personnel. The LAFD and Port Police
would be able to provide adequate emergency response services to the site. Additionally,
Alternative 5 operations would also be subject to emergency response and evacuation
systems implemented by the LAFD, which would review all plans to ensure that adequate
access in the Project vicinity is maintained. All Alternative 5 contractors would be
required to adhere to plan requirements.

**CEQA Impact Determination**

Alternative 5 would be operated as a container terminal and operations would be subject
to emergency response and evacuation systems implemented by the LAFD. Thus,
Alternative 5 operations would not interfere with any existing emergency response or
evacuation plans or increase the risk of injury or death. Therefore, impacts
would be less than significant under CEQA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 5 would be operated as a container terminal and operations would be subject
to emergency response and evacuation systems implemented by the LAFD. Thus,
Alternative 5 operations would not interfere with any existing emergency response or
evacuation plans or increase the risk of injury or death. Based on criterion
RISK-3, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-4b: Alternative 5 operations would comply with applicable regulations and policies guiding development within the Port.**

Alternative 5 operations would be subject to numerous regulations for operation of the
proposed facilities. LAHD has implemented various plans and programs to ensure
compliance with these regulations, which must be adhered to during terminal operation.
For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
HMSD, under the jurisdiction of the federal Department of Homeland Security
(33 CFR Part 126), which develops standards and industry guidance to promote the safety
of life and protection of property and the environment during marine transportation of
hazardous materials.

Among other requirements, Alternative 5 operations would conform to the USCG
requirement to provide a segregated cargo area for containerized hazardous materials.
Terminal cargo operations involving hazardous materials are also governed by the LAFD
in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). In addition, any facility constructed at the site, identified as either a hazardous cargo facility or a vulnerable resource, would be required to conform to the RMP, which includes packaging constraints and the provision of a separate storage area for hazardous cargo.

LAHD maintains compliance with these state and federal laws through a variety of methods, including internal compliance reviews, preparation of regulatory plans, and agency oversight. Most notably, the Port RMP implements development guidelines in an effort to minimize the danger of accidents to vulnerable resources. This would be achieved mainly through physical separation as well as through facility design features, fire protection, and other risk management methods. There are two primary categories of vulnerable resources: people and facilities. People are further divided into subgroups. The first subgroup is comprised of residences, recreational users, and visitors. Within the Port setting, residences and recreational users are considered vulnerable resources. The second subgroup is comprised of workers in high density (i.e., generally more than 10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that are important to the local or regional economy, the national defense, or some major aspect of commerce. These facilities typically have a large quantity of unique equipment, a very large working population, and are critical to both the economy and to national defense. Such facilities in the Port have been generally defined in the Port RMP as the former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very high economic value. These facilities include both facility improvements and cargo in-place, such as container storage areas. However, the determination of a vulnerable resource is made by the Port and LAFD on a case-by-case basis. Although the Port generally considers container terminals to be High Value Facilities, these types of facilities have never been considered vulnerable resources in risk analyses completed by the Port and LAFD (POLA, 2008). Because container terminals are not considered vulnerable resources, and because Alternative 5 would not increase the exposure of the residential or recreational users to increased risk (none are located next to the expansion area), this alternative would not conflict with the RMP.

Alternative 5 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, as a standard practice. Buildings would be equipped with fire protection equipment as required by the LAFC. Access to all buildings and adequacy of road and fire lanes would be reviewed by the LAFD to ensure that adequate access and firefighting features are provided. Plans would include an internal circulation system, code-required features, and other firefighting design elements, as approved by the LAFD.

Operation of Alternative 5 would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. Alternative 5 operations would comply with these laws and regulations, which
would ensure that potential hazardous materials handling would occur in an acceptable manner.

**CEQA Impact Determination**

Alternative 5 operations would not conflict with RMP guidelines. Alternative 5 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 5 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under CEQA, Alternative 5 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 5 operations would not conflict with RMP guidelines. Alternative 5 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 5 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under NEPA, Alternative 5 operations would comply with applicable regulations and policies guiding development in the Port. Based on criterion RISK-4, impacts would be less than significant under NEPA.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-5b: Tsunami-induced flooding and seismic events**

**could result in fuel releases from ships or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.**

As discussed in Section 3.5, Geology, and under RISK-5a there is the potential for a large tsunami to affect the Port. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. A large tsunami would potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami striking the Port could cause significant ship movement and even a hull breach if the ship is pushed against the wharf.

Because a major tsunami is not expected during the life of Alternative 5, but could occur (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional information on the probability of a major tsunami), the probability of a major tsunami occurring is classified as “improbable”. The consequence of such an event is classified
as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also expected to be relatively low because all fuel storage containers at the Project site would be quite small in comparison to the significance criteria volumes. Given that single-hulled vessels would not be used, there is a minimal chance of a substantive fuel spill. While there will be fuel-containing equipment present during operation, most equipment is equipped with watertight tanks, with the most likely scenario being the infiltration of water into the tank and fuel combustion chambers and very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

CEQA Impact Determination

While there will be fuel containing equipment present during operation, most equipment is equipped with watertight tanks, with the main problem being the infiltration of water into the tank and fuel combustion chambers. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered minor. In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated with Alternative 5 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

While there will be fuel containing equipment present during operation, most equipment is equipped with watertight tanks, with the main problem being the infiltration of water into the tank and fuel combustion chambers. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered minor. In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated with Alternative 5 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.
Impact RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period.

Risk of Terrorist Actions Associated with Operations

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The operation of a new wharf and cranes at Berth 306, additional cranes along the existing Berths 302-305, use of additional backlands for container storage, and minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on Alternative 5 facilities is not likely to appreciably change over current conditions. It is possible that the increase in vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack

The risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during operations. As with the proposed Project, an increase in the volume of container vessels visiting the Alternative 5 terminal would not change the probability or consequences of a terrorist attack on the APL Terminal since the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the Berth 302-306 facility compared to Project baseline conditions (under which many of these measures had not yet been implemented).

CEQA Impact Determination

These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts associated with a potential terrorist attack on the Berth 302-306 facility are considered less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

These measures have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, impacts associated with a potential terrorist attack on the Berth 302-306 facility are considered less than significant under NEPA.
Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

3.8.4.3.2.6 Alternative 6 – Proposed Project with Expanded On-Dock Railyard

Alternative 6 would be the same as the proposed Project; however, the existing on-dock railyard on the terminal would be redeveloped and expanded. Under this alternative, approximately 10 acres of backlands would be removed from container storage for the railyard expansion. Alternative 6 would improve the existing terminal, develop the existing 41-acre fill area as backlands, add 1,250 ft of new wharf creating Berth 306, and dredge the Pier 300 Channel along Berth 306. Under this alternative, 12 new cranes would be added to the wharves along Berths 302-306, for a total of 24 cranes. As with the proposed Project, the 41-acre backlands and Berth 306 under Alternative 6 could utilize traditional container operations, electric automated operations, or a combination of the two over time. Dredging of the Pier 300 Channel along Berth 306 would occur (removal of approximately 20,000 cy of material), with the dredged material beneficially reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal site (i.e., LA-2). Total terminal acreage (347) would be the same as the proposed Project.

Based on the throughput projections, TEU throughput would be the same as the proposed Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This would translate into 390 annual ship calls at Berths 302-306. In addition, Alternative 6 would result in up to 10,830 peak daily truck trips (2,862,760 annual), and up to 2,953 annual rail trip movements. Configuration of all other landside terminal components would be identical to the existing terminal.

3.8.4.3.2.6.1 Construction Impacts

Impact RISK-1a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance.

Construction activities from Alternative 6 would be identical to those under the proposed Project, with the exception that this alternative would redevelop and expand the existing on-dock railyard by approximately 10 acres. Construction equipment could result in accidental spills of oil, gas, or fluids during normal usage or during refueling, resulting in potential health and safety impacts to not only construction personnel, but to people and property occupying operational portions of the Project area. BMPs and Los Angeles Municipal Code regulations (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4) would govern construction activities. Federal and state regulations that govern the storage of hazardous materials in containers (i.e., the types of materials and the size of packages containing hazardous materials) and the separation of containers holding hazardous materials, would limit the potential adverse impacts of contamination to a relatively small area. In addition, standard BMPs would be used during construction and demolition activities to minimize runoff of contaminants, in compliance with the State General Permit for Storm Water Discharges Associated with Construction Activity
Implementation of construction standards, including BMPs, would minimize the potential for an accidental release of petroleum products and/or hazardous materials and/or explosion during construction activities at Berths 302-306. Because construction-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short-term and localized, mainly due to the fact that the volume in any single vehicle is generally less than 50 gallons and fuel trucks are limited to 10,000 gallons or less, the potential consequence of such accidents is classified as “slight” resulting in a Risk Code of 4, which is “acceptable.”

**CEQA Impact Determination**

As discussed above, under CEQA, construction activities associated with Alternative 6 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under CEQA would be less than significant.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**NEPA Impact Determination**

As discussed above, under NEPA, construction activities associated with Alternative 6 would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under NEPA would be less than significant.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**Impact RISK-2a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards.**

Risk of upset impacts during construction would be basically the same as those described for the proposed Project. Construction activities would be conducted using BMPs and in accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and HMI. Implementation of increased inventory accountability and spill prevention
controls associated with this RRP and HMI, such as limiting the types of materials stored and size of packages containing hazardous materials, would limit both the frequency and severity of potential releases of hazardous materials, thus minimizing potential health hazards and/or contamination of soil or water during construction activities. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Impacts from contamination of soil or water during construction activities would apply to not only construction personnel, but to people and property occupying operational portions of the Project area, as APL Terminal would be operating during construction activities.

Several standard policies regulate the storage of hazardous materials including the types of materials, size of packages containing hazardous materials, and the separation of containers containing hazardous materials. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Implementation of these preventative measures would minimize the potential for spills to affect members of the public, including on-site employees, and limit the adverse impacts of contamination to a relatively small area. Because construction-related spills are not uncommon, the probability of a spill occurring is classified as “frequent” (more than once a year). However, because such spills are typically short term and localized, the potential consequence of such accidents is classified as “slight” resulting in a Risk Code of 4, which is “acceptable.”

CEQA Impact Determination

As discussed above, under CEQA, construction activities at Berths 302-306 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts under CEQA from Alternative 6 would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

As discussed above, under NEPA, construction activities at Berths 302-306 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on risk criterion RISK-2, impacts under NEPA from Alternative 6 would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.
Impact RISK-3a: Construction/demolition activities would not substantially interfere with an existing emergency response or evacuation plan or increase the risk of injury or death.

Emergency response and evacuation planning is the responsibility of the LAPD, LAFD, Port Police, and USCG. Construction activities would be subject to emergency response and evacuation systems implemented by LAFD. During construction activities, the LAFD would require that adequate vehicular access to the site be provided and maintained. Prior to commencement of construction activities, all plans would be reviewed by the LAFD to ensure adequate access is maintained throughout construction/demolition.

**CEQA Impact Determination**

Alternative 6 contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under CEQA, construction activities associated with Alternative 6 would not substantially interfere with an existing emergency response or evacuation plan or increase risk of injury or death. Based on risk criterion RISK-3, impacts under CEQA would be less than significant.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 6 contractors would be required to adhere to all LAFD emergency response and evacuation regulations, ensuring compliance with existing emergency response plans. Therefore, under NEPA, construction activities associated with Alternative 6 would not substantially interfere with an existing emergency response or evacuation plan or increase risk of injury or death. Based on risk criterion RISK-3, impacts under NEPA would be less than significant.

*Mitigation Measures*

No mitigation is required.

*Residual Impacts*

Impacts would be less than significant.

**Impact RISK-4a: Alternative 6 construction/demolition would comply with applicable regulations and policies guiding development within the Port.**

As described in Section 3.8.3.1, List of Regulations, Alternative 6 would be subject to numerous regulations for development and operation of the proposed facilities.
CEQA Impact Determination

As with the proposed Project, because Alternative 6 construction would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under CEQA under criterion RISK-4.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

NEPA Impact Determination

As with the proposed Project, because Alternative 6 construction would be completed using standard BMPs and in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements, and all hazardous waste laws and regulations, impacts relating to compliance with applicable regulations and policies guiding development in the Port would be less than significant under NEPA under criterion RISK-4.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-5a: Tsunami-induced flooding and seismic events could result in fuel releases from demolition/construction equipment or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment.

As discussed in Section 3.5, Geology, and RISK-5a under the proposed Project there is the potential for a major or great earthquake or large tsunami to affect the Port. Either event could lead to a fuel spill from demolition and/or construction equipment, as well as from containers of petroleum products and hazardous substances used during the demolition/construction period, if such an event occurs during construction. Unfinished structures are especially vulnerable to damage from earthquakes and tsunamis during the construction period.

Impacts due to major or great earthquakes and seismically induced tsunamis and seiches are typical for the entire California coastline and would not be increased by construction of Alternative 6. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. However such an event could result in damage to property or injury related to in-water construction.

The coincidence of two unlikely events: the occurrence of the single highest tide predicted over the next 40 years; and the theoretical maximum wave action from a tsunami event occurring during construction is extremely unlikely and such an
assumption represents an extremely conservative, worst-case scenario: one that is not required under CEQA or NEPA.

**CEQA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated with Alternative 6 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

The volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated with Alternative 6 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period.**

**Risk of Terrorist Actions during Construction**

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The construction of a new wharf and cranes at Berth 306, additional cranes along the existing Berths 302-305, development of new backlands and expansion of the on-dock railyard, and minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on Alternative 6 facilities is not likely to appreciably change during construction compared to baseline conditions. It is possible that the increase in construction vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal. The APL Terminal would be operational during the construction period; therefore, risks
associated with terrorism during operations will also apply to the terminal during the construction period.

**Consequences of Terrorist Attack during Construction**

During construction, a terrorist action could block key road access points and waterways and result in economic disruption. A terrorist attack would be catastrophic, resulting in environmental damage that could include fuel and/or commodity spills into the marine environment, with associated degradation of water quality and damage to marine biological resources, and economic impacts. Container ships typically carry up to 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts would likely be limited to the area surrounding the point of attack and would be responded to by emergency response providers. A potential fire associated with a terrorist attack could result in short-term impacts to local air quality.

The potential for unauthorized access to the terminal site during construction by land, water, and/or air is limited. Existing Port and terminal security measures would counter any potential increase in unauthorized access to the terminal site through the use of vehicles or vessels. The potential for a terrorist attack that would result in adverse consequences (greater than 100 injuries or 10 fatalities) to areas near the proposed terminal site during the construction period is considered highly improbable given the limited construction duration and the limited access to the construction areas.

**CEQA Impact Determination**

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts would be less than significant under criterion RISK-6.

*Mitigation Measures*
No mitigation is required.

*Residual Impacts*
Impacts would be less than significant.

**NEPA Impact Determination**

This combination would result in a Risk Code of 4 that is “acceptable,” and impacts would be less than significant under criterion RISK-6.

*Mitigation Measures*
No mitigation is required.

*Residual Impacts*
Impacts would be less than significant.
3.8.3.2.6.2 Operational Impacts

**Impact RISK-1b: Operation of Alternative 6 would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.**

Terminal operations would be subject to safety regulations that govern the shipping, transport, storage and handling of hazardous materials, which would limit the severity and frequency of potential releases of hazardous materials resulting in increased exposure of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which develops standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. In addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance) would all apply to the alternative Project activities.

Terminal cargo operations involving hazardous materials are also governed by the LAFD in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). Implementation of increased hazardous materials inventory control and spill prevention controls associated with these regulations would limit both the frequency and severity of potential releases of hazardous materials.

Terminal maintenance activities would involve the use of hazardous materials such as petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to as RRP and HMI. Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI would limit both the frequency and severity of potential releases of hazardous materials. Based on the limited volumes that could potentially spill, quantities of hazardous materials used at Berths 302-306 that are below the thresholds of Chapter 6.95 would not likely result in a substantial release into the environment.

**CEQA Impact Determination**

As of 2008-2009 (CEQA baseline), the APL Terminal handled approximately 1,128,080 TEUs per year. APL Terminal operations under Alternative 6 could handle approximately 3,206,000 TEUs per year when optimized and functioning at maximum capacity (2027). Because projected terminal operations under Alternative 6 would accommodate approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. Based on the accident
history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-24.

Table 3.8-24: Alternative 6: Existing and Projected Cargo Throughput Volumes at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>CEQA Project Baseline*</td>
<td>1,128,080</td>
<td>NA</td>
<td>1.5</td>
</tr>
<tr>
<td>Alternative 6 (2027)</td>
<td>3,206,000</td>
<td>184.2 %</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note:
*CEQA Baseline – July 2008-June 2009
TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of spills potentially related to Alternative 6 would increase from 1.5 to 4.0 spills per year, or greater than two per year. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “slight,” resulting in a Risk Code of 4 that is “acceptable.” It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, under CEQA, Alternative 6 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Impacts under CEQA would be less than significant under criterion RISK-1.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

The APL Terminal operations under Alternative 6 could handle approximately 3,206,000 TEUs per year when optimized and functioning at maximum capacity (2027), compared to the NEPA baseline (2027) of 2,153,000 TEUs. Because projected terminal operations under Alternative 6 would accommodate approximately a 1.5-fold increase in containerized cargo compared to the NEPA baseline, the potential for an accidental release or explosion of hazardous materials would also be expected to increase proportionally. Based on the accident history at the Port of containers containing hazardous materials, which includes 39 incidents over a 4-year period in the entire Port
Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-25.

Table 3.8-25: Alternative 6: Existing and Projected Cargo Throughput Volumes at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Overall Throughput (TEUs)</th>
<th>Increase in TEUs (%)</th>
<th>Potential Spills (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port-Wide (2009)</td>
<td>11,816,591</td>
<td>NA</td>
<td>14.7</td>
</tr>
<tr>
<td>NEPA Project Baseline</td>
<td>2,153,000</td>
<td>NA</td>
<td>2.7</td>
</tr>
<tr>
<td>Alternative 6 (2027)</td>
<td>3,206,000</td>
<td>48.9 %</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note:

TEU = 20-ft equivalent unit

Based on the projected increase in TEUs, the frequency of spills potentially related to Alternative 6 would increase from 2.7 to 4.0 spills per year, or between once per year and once in 10 years. This spill frequency would be classified as “frequent” (greater than once per year). Because, based on history, a slight possibility exists for injury and or property damage to occur during one of these frequent accidents, the consequence of such accidents is classified as “moderate”, resulting in a Risk Code of 3 that is “acceptable.” It should be noted that there were no impacts to the public from any of the hazardous materials spills that were reported during the 2006-2009 period. Compliance with applicable federal, state, and local laws and regulations governing the transport of hazardous materials and emergency response to hazardous material spills, as described above, would minimize the potentials for adverse public health impacts. Therefore, Alternative 6 operations would not substantially increase the probable frequency and severity of consequences to people or property as a result of an accidental release or explosion of a hazardous substance. Based on criterion RISK-1, impacts under NEPA would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-2b: Alternative 6 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.

Alternative 6 includes the siting of facilities that potentially handle hazardous materials and increase other hazards to the public. The handling and storing of hazardous materials would increase the probability of a local accident involving a release, spill, fire or explosion, which is proportional to the size of the terminal and its throughput as was addressed in Impact RISK 1b.

Because projected terminal operations at Berths 302-306 would accommodate approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline,
the potential for increased truck transportation-related accidents would also occur. Potential alternative-related increases in truck trips could result in an increase in vehicular accidents, injuries, and fatalities. Therefore, the potential impact of increased truck traffic on regional injury and fatality rates is evaluated.

According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous materials truck accident rate is more than twice the hazardous materials truck accident rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents per million vehicle miles and the average hazardous materials truck accident rate was estimated to be 0.32 accidents per million vehicle miles. The hazardous materials truck accident rate is not directly applicable to the alternative Project container trucks since they are generally limited to bulk hazardous materials carriers. Therefore, for this analysis, the higher accident rate associated with non-hazardous materials trucks was used.

Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the sources of data for this analysis, which primarily examined fatalities associated with vehicle impact and trauma.

Based on these statistics and the projected truck trips for the existing facilities and Alternative 6, the potential rate of truck accidents, injuries, and fatalities can be estimated and evaluated.

Because the occurrence of truck accidents associated with Berths 302-306 occur at a frequency greater than one per year, truck accidents are considered a “frequent” event. Because the possibility exists for injury and/or fatality to occur during one of these frequent accidents as noted in Table 3.8-17, the consequence of such accidents is classified as “moderate,” resulting in a Risk Code of 3. An impact with a Risk Code of 3 is classed as acceptable with additional engineering or administrative controls to mitigate the potentially significant adverse impacts, per the LACFD risk criticality (Table 3.8-4).

The Port is currently developing a Port-wide TMP for roadways in and around its facilities. Present and future traffic improvement needs are being determined based on existing and projected traffic volumes. The results will be a TMP providing ideas on what to expect and how to prepare for future traffic volumes. Some of the transportation improvements already under consideration include: I-110/SR-47/Harbor Boulevard interchange improvements; Navy Way connector (grade separation) to westbound Seaside Avenue; south Wilmington grade separations; and additional traffic capacity analysis for the Vincent Thomas Bridge. In addition, the Port is working on several strategies to increase rail transport, which will reduce reliance on trucks. These projects would serve to reduce the frequency of truck accidents.

**CEQA Impact Determination**

Potential alternative-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
trips, the average distance of each trip, and the published accident, injury and fatality rates, the following probabilities were estimated as shown in Table 3.8-26.

Table 3.8-26: Alternative 6: Existing and Projected Truck Trips at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEQA Baseline</td>
<td>1,128,080</td>
<td>40.4</td>
<td>7.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Alternative 6 (2027)</td>
<td>2,862,762</td>
<td>102.4</td>
<td>17.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Increase over CEQA baseline</td>
<td>1,734,682</td>
<td>62.0</td>
<td>10.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to administrative controls. Therefore, Alternative 6 operations would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards and potential impacts under CEQA would be considered less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Potential alternative-related truck accident rates can be estimated based on national average accident rates and the average number of miles per cargo truck trip. Based on the air pollutant emission inventory of the Port, it was determined that the average truck trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck trips, the average distance of each trip, and the published accident, injury and fatality rates, the following probabilities were estimated as shown in Table 3.8-27.
Table 3.8-27: Alternative 6: Existing and Projected Truck Trips at Berths 302-306

<table>
<thead>
<tr>
<th>Operations</th>
<th>Annual Truck Trips</th>
<th>Accident Rate (per year)</th>
<th>Injury Probability (per year)</th>
<th>Fatality Probability (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEPA Baseline</td>
<td>1,922,497</td>
<td>68.8</td>
<td>11.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Alternative 6 (2027)</td>
<td>2,862,762</td>
<td>102.4</td>
<td>17.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Increase over NEPA baseline</td>
<td>940,265</td>
<td>33.6</td>
<td>5.8</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Note: numbers are rounded

The Port also is currently phasing out older trucks as part of its Clean Truck Program, and the TWIC program will help identify and exclude truck drivers that lack the proper licensing and training. The phasing out of older trucks would reduce the probability of accidents that occur as a result of mechanical failure by approximately 10 percent (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of drivers that do not meet minimum training specifications, would further reduce potential accidents by approximately 30 percent. Additionally, trucks would be inspected at the Roadability facility prior to leaving the terminal. The potential total number of injuries would be reduced due to administrative controls. Therefore, Alternative 6 operations would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Based on criterion RISK-2, impacts under NEPA would be considered less than significant.

Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

Impact RISK-3b: Alternative 6 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.

Alternative 6 would optimize terminal operations by increasing backland capacity and constructing a new wharf, new cranes, development and expansion of the on-dock railyard by 10 acres, and other landside terminal components similar to those under the proposed Project, as described in Chapter 2. The APL Terminal would operate as a container terminal similar to other terminals in the Port area; therefore, proposed terminal operations would not interfere with any existing contingency plans, because the current activities are consistent with the contingency plans and this alternative would not add any additional activities that would be inconsistent with these plans. In addition, existing oil spill contingency and emergency response plans for the site would be revised to incorporate proposed facility and operational changes. Because existing management plans are commonly revised to incorporate terminal operation changes, conflicts with existing contingency and emergency response plans are not anticipated.

Berth 302-306 facilities personnel, including dock laborers and equipment operators, would be trained in emergency response and evacuation procedures. The site would be
secured, with access allowed only to authorized personnel. The LAFD and Port Police
would be able to provide adequate emergency response services to the site. Additionally,
Alternative 6 operations would also be subject to emergency response and evacuation
systems implemented by the LAFD, which would review all plans to ensure that adequate
access in the Project vicinity is maintained. All Alternative 6 contractors would be
required to adhere to plan requirements.

CEQA Impact Determination

Alternative 6 would be operated as a container terminal and operations would be subject
to emergency response and evacuation systems implemented by the LAFD. Thus,
Alternative 6 operations would not interfere with any existing emergency response or
emergency evacuation plans or increase the risk of injury or death. Therefore, impacts
would be less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

Alternative 6 would be operated as a container terminal and operations would be subject
to emergency response and evacuation systems implemented by the LAFD. Thus,
Alternative 6 operations would not interfere with any existing emergency response or
emergency evacuation plans or increase the risk of injury or death. Therefore, impacts
would be less than significant under NEPA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact RISK-4b: Alternative 6 operations would comply with
applicable regulations and policies guiding development within the
Port.

Alternative 6 operations would be subject to numerous regulations for operation of the
proposed facilities. LAHD has implemented various plans and programs to ensure
compliance with these regulations, which must be adhered to during terminal. For
example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
HMSD, under the jurisdiction of the federal Department of Homeland Security
(33 CFR Part 126), which develops standards and industry guidance to promote the safety
of life and protection of property and the environment during marine transportation of
hazardous materials.

Among other requirements, Alternative 6 operations would conform to the USCG
requirement to provide a segregated cargo area for containerized hazardous materials.
Terminal cargo operations involving hazardous materials are also governed by the LAFD

in accordance with regulations of state and federal departments of transportation (49 CFR Part 176). The transport of hazardous materials in containers on the street and highway system is regulated by Caltrans procedures and the Standardized Emergency Management System prescribed under Section 8607 of the California Government Code. These safety regulations strictly govern the storage of hazardous materials in containers (i.e., types of materials and size of packages containing hazardous materials). In addition, any facility constructed at the site, identified as either a hazardous cargo facility or a vulnerable resource, would be required to conform to the RMP, which includes packaging constraints and the provision of a separate storage area for hazardous cargo.

LAHD maintains compliance with these state and federal laws through a variety of methods, including internal compliance reviews, preparation of regulatory plans, and agency oversight. Most notably, the Port RMP implements development guidelines in an effort to minimize the danger of accidents to vulnerable resources. This would be achieved mainly through physical separation as well as through facility design features, fire protection, and other risk management methods. There are two primary categories of vulnerable resources: people and facilities. People are further divided into subgroups. The first subgroup is comprised of residences, recreational users, and visitors. Within the Port setting, residences and recreational users are considered vulnerable resources. The second subgroup is comprised of workers in high density (i.e., generally more than 10 people per acre, per employer).

Facilities that are vulnerable resources include Critical Regional Activities/Facilities and High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that are important to the local or regional economy, the national defense, or some major aspect of commerce. These facilities typically have a large quantity of unique equipment, a very large working population, and are critical to both the economy and to national defense. Such facilities in the Port have been generally defined in the Port RMP as the former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

High Value Facilities are non-hazardous facilities, in and near the Ports, which have very high economic value. These facilities include both facility improvements and cargo in-place, such as container storage areas. However, the determination of a vulnerable resource is made by the Port and LAFD on a case-by-case basis. Although the Port generally considers container terminals to be High Value Facilities, these types of facilities have never been considered vulnerable resources in risk analyses completed by the Port and LAFD (POLA, 2008). Because container terminals are not considered vulnerable resources, and because Alternative 6 would not increase the exposure of the residential or recreational users to increased risk (none are located next to the expansion area), this alternative would not conflict with the RMP.

Alternative 6 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, as a standard practice. Buildings would be equipped with fire protection equipment as required by the LAFC. Access to all buildings and adequacy of road and fire lanes would be reviewed by the LAFD to ensure that adequate access and firefighting features are provided. Plans would include an internal circulation system, code-required features, and other firefighting design elements, as approved by the LAFD.

Operation of Alternative 6 would be required to comply with all existing hazardous waste laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and Title 26. Alternative 6 operations would comply with these laws and regulations, which
would ensure that potential hazardous materials handling would occur in an acceptable manner.

**CEQA Impact Determination**

Alternative 6 operations would not conflict with RMP guidelines. Alternative 6 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 6 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under CEQA, Alternative 6 operations would comply with applicable regulations and policies guiding development in the Port. Impacts under CEQA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

Alternative 6 operations would not conflict with RMP guidelines. Alternative 6 plans and specifications will be reviewed by the LAFD for conformance to the LAFC, and operation of Alternative 6 would be required to comply with all applicable existing hazardous waste laws and regulations. Therefore, under NEPA, Alternative 6 operations would comply with applicable regulations and policies guiding development in the Port. Based on criterion RISK-4, impacts under NEPA would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**Impact RISK-5b: Tsunami-induced flooding and seismic events**

As discussed in Section 3.5, Geology, and under RISK-5a there is the potential for a large tsunami to affect the Port. Because the proposed site elevation is approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur. A large tsunami would potentially lead to a fuel spill if a moored vessel is present. Although crude oil tankers would not moor at Berths 302-305, each ship contains large quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and in most cases, imperceptible. However, while docked, a tsunami striking the Port could cause significant ship movement and even a hull breach if the ship is pushed against the wharf.

Because a major tsunami is not expected during the life of Alternative 6, but could occur (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional information on the probability of a major tsunami), the probability of a major tsunami occurring is classified as “improbable”. The consequence of such an event is classified
as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also expected to be relatively low because all fuel storage containers at the Project site would be quite small in comparison to the significance criteria volumes. Given that single-hulled vessels would not be used, there is a minimal chance of a substantive fuel spill. While there will be fuel-containing equipment present during operation, most equipment is equipped with watertight tanks, with the most likely scenario being the infiltration of water into the tank and fuel combustion chambers and very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered “slight.” In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**CEQA Impact Determination**

While there will be fuel containing equipment present during operation, most equipment is equipped with watertight tanks, with the main problem being the infiltration of water into the tank and fuel combustion chambers. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered minor. In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated with Alternative 6 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.

**NEPA Impact Determination**

While there will be fuel containing equipment present during operation, most equipment is equipped with watertight tanks, with the main problem being the infiltration of water into the tank and fuel combustion chambers. Thus, the volume spilled in the event of a tsunami would likely be less than 10,000 gallons, which is considered minor. In light of such a low probability and acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated with Alternative 6 would be less than significant as they pertain to hazardous materials spills under criterion RISK-5.

**Mitigation Measures**

No mitigation is required.

**Residual Impacts**

Impacts would be less than significant.
Impact RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period.

Risk of Terrorist Actions Associated with Operations

The proposed site is an existing container terminal and would not constitute a new potential target for terrorists. The operation of a new wharf and cranes at Berth 306, additional cranes along the existing Berths 302-305, development of new backlands and increase in on-dock railyard operations, and minor upland improvements would support higher container throughput and make operations more efficient. These improvements are not expected to make the existing APL Terminal more attractive to terrorists.

The probability of a terrorist attack on Alternative 6 facilities is not likely to appreciably change over current conditions. It is possible that the increase in vessel traffic in the vicinity of the APL Terminal could lead to a greater opportunity of a successful terrorist attack; however, existing Port security measures would counter this potential increase in unauthorized access to the terminal.

Consequences of Terrorist Attack

The risks associated with terrorism discussed in Section 3.8.2.4 would apply to the terminal during operations.

As with the proposed Project, an increase in the volume of container vessels visiting the Alternative 6 terminal would not change the probability or consequences of a terrorist attack on the APL Terminal since the terminal is already considered a potential economic target, and increased throughput is not expected to affect any motivation for a potential attack or the potential mode to smuggle a weapon into the United States. In addition, the measures described in Section 3.8.2.5 would serve to reduce the potential for a successful terrorist attack on the Berth 302-306 facility compared to Project baseline conditions (under which many of these measures had not yet been implemented).

CEQA Impact Determination

The measures discussed above have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts associated with a potential terrorist attack on the Berth 302-306 facility are considered less than significant under CEQA.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

The measures discussed above have since improved both terminal and cargo security, and have resulted in enhanced cargo screening. Therefore, potential impacts associated with a potential terrorist attack on the Berth 302-306 facility are considered less than significant under NEPA.
Mitigation Measures
No mitigation is required.

Residual Impacts
Impacts would be less than significant.

### 3.8.4.4 Summary of Impact Determinations

Table 3.8-28 presents a summary of the CEQA and NEPA impact determinations of the proposed Project and alternatives related to Hazards and Hazardous Materials, as described above. This table is meant to allow easy comparison between the potential impacts of the Project and alternatives with respect to this resource. Identified potential impacts may be based on federal, state, or City of Los Angeles significance criteria, Port criteria, and the scientific judgment of the report preparers.

For each impact threshold, the table describes the impact, notes the CEQA and NEPA impact determinations, describes any applicable mitigation measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in this table.
### Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

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NEPA: Less than significant | Mitigation not required | CEQA: Less than significant  
NEPA: Less than significant |
| **RISK-2a:** Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. | CEQA: Less than significant  
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NEPA: Less than significant |
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NEPA: Less than significant | Mitigation not required | CEQA: Less than significant  
NEPA: Less than significant |
| **RISK-4a:** Construction of the proposed Project would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant  
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<td>Alternative 1 – No Project</td>
<td>RISK-1a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.</td>
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<td>RISK-4a:</td>
<td>Alternative 2 construction/demolition would comply with applicable regulations and policies guiding development within the Port.</td>
<td>CEQA: Less than significant</td>
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<tr>
<td><strong>RISK-4a:</strong> Alternative 3 construction/demolition would comply with applicable regulations and policies guiding development within the Port.</td>
<td>CEQA: Less than significant&lt;br&gt;NEPA: Less than significant</td>
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<td>RISK-4a</td>
<td>Alternative 4 construction/demolition would comply with applicable regulations and policies guiding development within the Port.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
<td>CEQA: Less than significant</td>
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<td>Operation of Alternative 4 would not increase the probable frequency and severity of consequences to people or property as a result of accidental release or explosion of a hazardous substance.</td>
<td>CEQA: Less than significant</td>
<td>Mitigation not required</td>
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<td>RISK-2b:</td>
<td>Alternative 4 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.</td>
<td>CEQA: Less than significant</td>
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<td>Alternative 4 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans.</td>
<td>CEQA: Less than significant</td>
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<td>RISK-4b:</td>
<td>Alternative 4 operations would comply with applicable regulations and policies guiding development within the Port.</td>
<td>CEQA: Less than significant</td>
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 NEPA: Less than significant | Mitigation not required | CEQA: Less than significant  
 NEPA: Less than significant |
| RISK-4a:    | Alternative 5 construction/demolition would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant  
 NEPA: Less than significant | Mitigation not required | CEQA: Less than significant  
 NEPA: Less than significant |
| RISK-5a:    | Tsunami-induced flooding and seismic events could result in fuel releases from demolition/construction equipment or hazardous substances releases from containers, which in turn could result in risks to persons and/or the environment. | CEQA: Less than significant  
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<td>CEQA: Less than significant; NEPA: Less than significant</td>
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<td>RISK-2b</td>
<td>Alternative 5 operations would not substantially increase the probable frequency and severity of consequences to people or property from exposure to health hazards.</td>
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3.8.4.5 Mitigation Monitoring

Neither the proposed Project nor any of the alternatives would result in significant impacts on Hazards and Hazardous Materials. Therefore, no mitigation measures or a monitoring program are required.

3.8.5 Significant Unavoidable Impacts

No significant unavoidable impacts or risks related to Hazards and Hazardous Materials would occur as a result of construction or operation of the proposed Project or alternatives.
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