

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:

- 1 ▪ The proposed Project and alternatives would not significantly increase the risks associated with
2 increased probability and criticality of hazardous spills or releases.
- 3 ▪ The proposed Project and alternatives would not increase the risk or frequency of potential acts of
4 terrorism.
- 5 ▪ The proposed Project and Alternatives 4, 5, and 6 would increase the throughput (TEUs) and
6 associated truck-related traffic; however, the increase is not expected to significantly increase the risk
7 of regional injury and fatality rates.
- 8

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

1 reviewed and approved by the Port Security and the City Fire Department before they can
2 be unloaded.

3 The LAHD estimates that the Port, as a whole, handled approximately 265,039 containers
4 in 2009 that contained hazardous materials (PIERS, 2010). This is the approximate
5 capacity of 58 container ships. Based on the annual Port-wide container volume of
6 7.26 million TEUs for fiscal year (FY) 2009, hazardous materials in containers
7 represents approximately 3.65 percent of the total containers handled in the Port during
8 FY 2009 (July 1 – June 30).

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

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

26 The California Office of Emergency Services (OES) maintains the Response Information
27 Management System (RIMS) database that includes detailed information on all reported
28 hazardous material spills in California, and corresponds to the NRC data. All spills that
29 occur in the Port, both hazardous and non-hazardous, are reported to the OES and entered
30 into the RIMS database. This database includes spills that may not result in a risk to the
31 public, but could be considered to be an environmental hazard. Information in the RIMS
32 database was evaluated for the period 2006-2009 to evaluate the types and number of
33 spills that have occurred at the Ports of Los Angeles and Long Beach that would be
34 associated with container terminals. Table 3.8-2 is a list of hazardous materials stored at
35 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

| Spill Control Number | Date | Port | Substance | Injuries | Fatalities | Evacuations |
|----------------------|------------|------|-------------|----------|------------|-------------|
| 06-0430 | 1/18/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 06-0518 | 1/23/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 06-0623 | 1/28/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 06-3029 | 5/20/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 06-4008 | 7/7/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 06-4324 | 7/22/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 06-6777 | 11/15/2006 | POLB | Petroleum | 0 | 0 | 0 |
| 06-7102 | 12/1/2006 | POLB | Petroleum | 0 | 0 | 0 |
| 06-7666 | 12/29/2006 | POLA | Petroleum | 0 | 0 | 0 |
| 07-0339 | 1/16/2007 | POLA | Chemical | 0 | 0 | 0 |
| 07-0369 | 1/17/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-0638 | 1/29/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-0764 | 2/3/2007 | POLA | Chemical | 0 | 0 | 0 |
| 07-0931 | 2/11/2007 | POLA | Chemical | 0 | 0 | 0 |
| 07-1252 | 2/27/2007 | POLA | Unspecified | 0 | 0 | 0 |
| 07-1733 | 3/18/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-2830 | 5/9/2007 | POLA | Other | 0 | 0 | 0 |
| 07-3895 | 6/28/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-4309 | 7/18/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-4559 | 7/30/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-4914 | 8/16/2007 | POLA | Chemical | 0 | 0 | 0 |
| 07-5353 | 9/4/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-5644 | 9/16/2007 | POLA | Other | 0 | 0 | 0 |
| 07-6802 | 11/5/2007 | POLA | Petroleum | 0 | 0 | 0 |
| 07-7097 | 11/16/2007 | POLA | Chemical | 0 | 0 | 0 |
| 07-7805 | 12/19/2007 | POLA | Unspecified | 0 | 0 | 0 |
| 08-0243 | 1/7/2008 | POLA | Petroleum | 0 | 0 | 0 |
| 08-0494 | 1/16/2008 | POLA | Petroleum | 0 | 0 | 0 |
| 08-1742 | 3/1/2008 | POLA | Petroleum | 0 | 0 | 0 |
| 08-3058 | 4/26/2008 | POLA | Petroleum | 0 | 0 | 0 |
| 08-3731 | 5/24/2008 | POLA | Chemical | 0 | 0 | 0 |
| 08-6004 | 8/17/2008 | POLA | Petroleum | 0 | 0 | 0 |

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

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

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

1 During the period 2006-2009, which encompasses the baseline year, there were
2 approximately 39 hazardous material spills directly or indirectly associated with
3 container terminals in the Port Complex. The Spills include fuel and other spills from
4 vessels serving the terminals. This equates to approximately 10 spills per year for the
5 entire Port Complex. During this period, the total throughput of the container terminals
6 was 31,423,871 TEU. Therefore, the probability of a spill involving a hazardous material
7 at the container terminals can be estimated at 1.24×10^{-6} per TEU (39 spills divided by
8 31,423,871 TEUs). This spill probability is a conservative estimate because it includes
9 materials that would not be considered a risk to public safety (e.g., perfume spills), but
10 would still be considered an environmental hazard. It should be noted that, during the
11 period 2006-2010, there were no reported impacts (injuries, fatalities, or evacuations) to
12 the general public or employees.

13 There are no bulk liquid facilities adjacent to the proposed Project site. The closest bulk
14 liquid facilities are operated by ExxonMobil at Berths 238-240C located approximately
15 0.6 mile west in the Main Channel, and Shell Oil at Berths 167-169 in the Turning Basin
16 area approximately 0.8 mile (4,200 lf) north/northwest of the proposed Project site. The
17 ExxonMobil facility contains 26 storage tanks with a total capacity of approximately
18 2.3 million barrels, and the Shell Oil facility contains 10 storage tanks with a total
19 capacity of approximately 580,000 barrels.

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

24 APL/EMS contracts Ocean Blue Environmental Services to manage all waste oil
25 accumulated from on-site operations. The waste oil is contained on-site in four 500-
26 gallon totes and one 100-gallon tote (5 totes total) for less than 31 days, and then, Ocean
27 Blue Environmental Services transports the waste oil off-site to Industrial Service Oil

1 Company, Inc. in Los Angeles, which is a facility approved to accept waste oil (EMS,
2 2010).

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

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

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

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

1 Source: EMS, 2010

2 **3.8.2.2 Public Emergency Services**

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

10 Additionally, the West Coast and Alaska Tsunami Warning Center (WCATWC) operates
11 the federal data collection and warning system for tsunami hazards in its area of
12 responsibility (AOR), which includes the west coast of the US, Alaska, Atlantic Ocean
13 and seaboard, Puerto Rico, Virgin Islands, and Gulf of Mexico coastal areas, as well as
14 the east and west coasts of Canada. The WCATWC collects seismic data from various
15 seismic networks throughout its AOR (National Oceanic and Atmospheric

1 Administration [NOAA], 2011a).² This data is processed, automatically and interactively,
2 to quickly determine the tsunami potential of an earthquake, and bulletins are issued
3 based initially on this first analysis of seismic data. If a tsunami could have been
4 generated, sea level data, tsunami models, and historical tsunami information are
5 analyzed to estimate impact level (NOAA, 2011b; National Tsunami Hazard Mitigation
6 Program and NOAA, 2010).³

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

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

25 **3.8.2.3 Port of Los Angeles Risk Management Plan**

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

35 **3.8.2.4 Homeland Security**

36 **3.8.2.4.1 Terrorism Risk**

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

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.

1 has an additional unknown factor for consideration (i.e., terrorism). There are limited
2 data available to indicate the likelihood of a terrorist attack aimed at the Port or the
3 proposed Project or an alternative; therefore, the probability component of the analysis
4 described above contains a considerable amount of uncertainty. Nonetheless, this fact
5 does not invalidate the analysis presented herein. A terrorist action could be the cause of
6 events described in this section, such as hazardous materials release and/or explosion.
7 The potential impact of those events would remain as described herein.

8 **3.8.2.4.2 Application of Risk Principles**

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

17 **3.8.2.4.3 Terrorism Risk Associated with Port Cargo Facilities**

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

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

28 **3.8.2.4.4 Terrorism Risk Associated With Commercial Vessels**

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

34 There have been very few examples of terrorist actions attempted against large
35 commercial vessels since September 11, 2001. On October 6, 2002, a terrorist attack was
36 attempted against the French-flagged crude oil tanker *Limburg*, which was carrying
37 397,000 barrels of crude oil from Iran to Malaysia. The ship was attacked off the coast of
38 Yemen by a small boat laden with explosives. The *Limburg* caught fire and
39 approximately 90,000 barrels of crude oil leaked into the Gulf of Aden. The *Limburg* did
40 not sink. She was salvaged, repaired, and returned to service under the new name
41 *Maritime Jewel*.

42 Unlike vessels carrying hazardous or highly flammable materials, such as bulk liquid
43 carriers, an attack on a container ship would likely be economic in nature and designed to

1 disrupt port operations. Container ships are not attractive targets in terms of loss of life
2 or producing large fires and explosions. However, a catastrophic attack on a vessel in
3 Port waters could block key channels and disrupt commerce, thus resulting in potential
4 economic losses.

5 **3.8.2.4.5 Terrorism Risk Associated With Containerized Cargo**

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

13 Containerized cargo represents a substantial segment of maritime commerce and is the
14 focus of much of the attention regarding seaport security. Containers are used to
15 transport a wide variety of goods. A large container ship can carry more than
16 3,000 containers, of which several hundred might be offloaded at a given port.

17 An intermodal container is similar to a semi-truck trailer without an attached chassis or
18 wheels. Standard container sizes are 8 x 8 x 20 ft or 8 x 8 x 40 ft. Once offloaded from
19 ships, they are transferred to rail cars, or tractor-trailers. Over-the-road weight
20 regulations generally limit the cargo load of a 40-ft container to approximately
21 45,000 pounds.

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

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

35 **3.8.2.5 Security Measures at the Port of Los Angeles**

36 Numerous security measures have been implemented in the Port in the wake of the
37 terrorist attacks of September 11, 2001. Federal, state, and local agencies, as well as
38 private industry, have implemented and coordinated many security operations and
39 physical security enhancements. The result is a layered approach to Port security that
40 includes the security program of the LAHD and the existing APL Terminal at
41 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;

- 1 4) Implementing scalable security measures to provide increasing levels of security
2 at increasing Maritime Security (MARSEC) levels for facility access control,
3 restricted areas, cargo handling, vessel stores and bunkers, and monitoring;
- 4 5) Conducting security exercises at least once each calendar year and drills at least
5 every 3 months; and
- 6 6) Mandatory reporting of all security breaches and incidents.

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

12 **3.8.2.5.3 Vessel Security Measures**

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

- 16 1) Ships must develop security plans that address monitoring and controlling access;
17 monitoring the activities of people, cargo, and stores; and ensuring the security
18 and availability of communications;
- 19 2) Ships must have a Ship Security Officer (SSO);
- 20 3) Ships must be provided with a ship security alert system. These systems transmit
21 ship-to-shore security alerts to a competent authority designated by the Flag State
22 Administration, which may communicate the company name, identify the ship,
23 establish its location, and indicate that the ship security is under threat or has
24 been compromised. For the west coast, this signal is received by the Coast Guard
25 Pacific Area Command Center in Alameda, California.
- 26 4) International port facilities that ships visit must have a security plan, including
27 focused security for areas having direct contact with ships; and
- 28 5) Ships may have certain equipment onboard to help maintain or enhance the
29 physical security of the ship, including:
 - 30 ▪ Monitoring and controlling access;
 - 31 ▪ Monitoring the activities of people and cargo;
 - 32 ▪ Ensuring the security and availability of communications; and
 - 33 ▪ Completing a Declaration of Security signed by the FSO and SSO, which
34 ensures that areas of security overlapping between the ship and facility
35 are adequately addressed.

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

38 **3.8.2.5.4 Security Credentialing**

39 The TWIC program is a TSA and USCG initiative that includes issuance of a tamper-
40 resistant biometric credential to maritime workers requiring unescorted access to secure

1 areas of port facilities and vessels regulated under the MTSA. The TWIC program
2 minimizes the potential for unauthorized handling of containers that contain hazardous
3 materials and provides additional shoreside security at the terminal. In order to obtain a
4 TWIC, an individual must successfully pass a security threat assessment conducted by
5 TSA. This assessment includes a criminal history check and a citizenship or immigration
6 status check of all applicants. The Port is currently involved in initial implementation of
7 the TWIC program, including a series of field tests at selected Port terminals.

8 **3.8.2.5.5 Cargo Security Measures**

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

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

22 **3.8.2.5.6 Port of Los Angeles Security Initiatives**

23 The LAHD is not subject to the international or federal security regulations discussed in
24 Section 3.8.2.5.1. However, all container terminal tenants at the Port are subject to these
25 regulations. The Port's Strategic Plan 2010/2011 identifies eight safety and security
26 initiatives.⁴ These initiatives support the strategic objective of maintaining the Port as a
27 world-class model for crime prevention, counter-terrorism detection, maritime security
28 training, and emergency incident response and mitigation. The initiatives in this area
29 include:

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

⁴ 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

- 1 ▪ Continue security upgrades at all critical locations.

2 The Ports Strategic Plan for Safety and Security identifies 19 strategic initiatives in the
3 primary areas of public safety, homeland security, and emergency preparedness that will
4 allow focus on efforts in those areas where it can achieve maximum effectiveness (POLA,
5 2007). The strategic initiatives are listed below under the three primary areas along with
6 a notation indicating their status:

- 7 1) Expanding Port Police and enhancement of its communications capabilities
8 a. Establishing a 24-hour two-vessel presence (implemented)
9 b. Establishing a vehicle and cargo inspection team (implemented)
10 c. Establishing a Port Police substation in Wilmington (implemented)
11 2) Enhancing recruiting and retention of Port Police personnel (suspended)
12 3) Expanding Port Police communications capabilities to include addition of
13 dedicated tactical frequencies (in progress)
14 4) Enhancing security at Port-owned facilities (in progress)
15 5) Implementing a Green/Responsible Marina Program (implemented)

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

- 19 1) Upgrading security at the World Cruise Center
20 2) Expanding the waterside camera system in the Port
21 3) Establish restricted areas for non-commercial vehicles and vessels
22 4) Installing additional shore-side cameras at critical locations
23 5) Working with TSA to implement the TWIC program
24 6) Promoting increased scanning at overseas ports
25 7) Updating long-range security plans for the Port
26 8) Developing a security awareness training program
27 9) Enhancing outreach to constituents

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

- 34 1) Completing upgrades to the Department Operations Center
35 2) Beginning installation of a Port-wide emergency public notification system
36 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

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

14 **3.8.3.1.5 Hazardous Waste Control Law, California Health and Safety Code,** 15 **Chapter 6.5**

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

22 **3.8.3.1.6 Emergency Planning and Community Right-To-Know Act (42 U.S.C.** 23 **11001 et seq.)**

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

34 **3.8.3.1.7 Hazardous Material Release Response Plans and Inventory Law** 35 **(California Health and Safety Code, Chapter 6.95)**

36 California's "right-to-know law" requires businesses to develop a Hazardous Material
37 Management Plan or a business plan for hazardous materials emergencies if they handle
38 more than 500 pounds, 55 gallons, or 200 cubic ft of hazardous materials. In addition,
39 the business plan includes an inventory of all hazardous materials stored or handled at the
40 facility above these thresholds. This law is designed to reduce the occurrence and
41 severity of hazardous materials releases. The Hazardous Materials Management Plan or
42 business plan must be submitted to the Certified Unified Program Agency (CUPA),
43 which is, in this case, the LAFD. The state has integrated the federal EPCRA reporting
44 requirements into this law; and, once a facility is in compliance with the local
45 administering agency requirements, submittals to other agencies are not required. In the

1 event of an emergency, operators at the APL Terminal have a Hazardous Materials
2 Business Plan in place to facilitate effective and safe management of any release.

3 **3.8.3.1.8 Los Angeles Municipal Code (Fire Protection – Chapter 5, Section 57,
4 Divisions 4 and 5)**

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

10 **3.8.3.1.9 Los Angeles Municipal Code (Public Property – Chapter 6, Article 4)**

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

15 **3.8.3.2 Other Requirements**

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

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

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

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

37 Hazardous materials inside cargo containers fall under the primary jurisdiction of the
38 federal Department of Homeland Security and USCG (33 CFR Part 126) while the
39 containers are at sea, in Port waters, and at waterfront facilities. Under the jurisdiction of
40 the Department of Homeland Security (DHS), the USCG maintains an Office of
41 Operating and Environmental Standards Division, which develops national regulations
42 and policies on marine environmental protection. This division coordinates with

1 appropriate federal, state, and international organizations to minimize conflicting
2 environmental requirements. The USCG also maintains a Hazardous Materials Standards
3 Division (HMSD), which develops standards and industry guidance to promote the safety
4 of life and protection of property and the environment during marine transportation of
5 hazardous materials. This includes transportation of bulk liquid chemicals and liquefied
6 gases, hazardous bulk solids, and packaged hazardous cargoes, as well as hazardous
7 materials used as ship stores and hazardous materials used for shipboard fumigation of
8 cargo.

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

16 Terminal cargo operations involving hazardous materials are governed by the LAFD in
17 accordance with regulations of state and federal departments of transportation
18 (49 CFR Part 176). Regulated hazardous materials in the Port may include maritime-use
19 compounds, such as chlorinated solvents, petroleum products, compressed gases, paints,
20 cleaners, and pesticides.

21 The risk of terrorism and any resultant environmental effects, when such risks are
22 relevant and reasonably foreseeable, must be considered during preparation of
23 environmental documents under NEPA (U.S. Court of Appeals for the 9th Circuit in
24 *San Luis Obispo Mothers for Peace, et. al v. Nuclear Regulatory Commission*
25 [449 F.3d 1016 (9th Cir. 2006)]). The decision by the court held that the risk of terrorist
26 attack was within the foreseeable chain of causation and dealt with likely *physical* effects
27 of that terrorism.

28 **3.8.4 Impacts and Mitigation Measures**

29 **3.8.4.1 Methodology**

30 **Risk Probability and Criticality**

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

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Table 3.8-3: Risk Matrix

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

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.

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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

| Criticality Classification | | |
|----------------------------|--|---|
| Classification | Description of Public Safety Hazard | Environmental Hazard – Oil Spill Size |
| Negligible | No significant risk to the public, with no injuries | Less than 10 bbls (420 gal) |
| Slight | At most a few minor injuries | 10–238 bbl (420–10,000 gal) |
| Moderate | Up to 10 severe injuries | 238–2,380 bbl (10,000–100,000 gal) |
| Severe | Up to 100 severe injuries or up to 10 fatalities | 2,380–357,142 bbls (100,000–15,000,000 gal) |
| Catastrophic | More than 100 severe injuries or more than 10 fatalities | Greater than 357,142 bbl (15,000,000 gal) |
| Frequency Classification | | |
| Classification | Frequency per year | Description of the Event |
| Extraordinary | < once in 1,000,000 years | Has never occurred but could occur. |
| Improbable | between once in 10,000 and once in 1,000,000 years | Occurred on a worldwide basis, but only a few times. Not expected to occur. |
| Possible | Between once in a 100 and once in 10,000 years | Is not expected to occur during the project lifetime. |
| Occasional | Between once in a 10 and once in 100 years | Would probably occur during the Project lifetime. |
| Periodic | Between once per year and once in 10 years | Would occur about once a decade. |
| Frequent | Greater than once in a year | Would occur once in a year on average. |

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

1 requirements of Section 25532(g) of the Health and Safety Code, and has been modified
2 over the years to include other environmental and public safety hazards.

3 **Risk of Upset Due to Terrorism**

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

20 **Hazards Associated with Truck Transportation**

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

24 The Federal Motor Carrier Safety Administration (FMCSA), within DOT, operates and
25 maintains the Motor Carrier Management Information System (MCMIS). MCMIS
26 contains information on the safety fitness of commercial motor carriers and hazardous
27 material shippers subject to the FMCSA Regulations and the 49 CFR (Part 171.8, 172,
28 173.403, 173.8, and 397.101) Hazardous Materials Regulations. As part of these
29 requirements, reportable accident rates are generated for various types of carriers,
30 including carriers of hazardous materials. More than 500,000 motor carriers are included
31 in the database, of which approximately 40,000 carry hazardous materials. A
32 DOT-reportable accident is an accident that produces either a fatality, a hospitalization,
33 or requires the vehicle be towed.

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

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

42 Based on the National Highway Traffic Safety Administration (NHTSA, 2008), of the
43 estimated 380,000 truck crashes in 2008 (causing fatalities, injuries, or property damage),
44 an estimated 1.07 percent (4,066 of the total 380,000 truck crashes) produced fatalities

1 and 17.4 percent (66,000 of the total 380,000 truck crashes) produced injuries. The
2 Fatality Analysis Reporting System (FARS) and the Trucks Involved in Fatal Accidents
3 (TIFA) survey were the sources of data for this analysis, which primarily examined
4 fatalities associated with vehicle impact and trauma.

5 **3.8.4.1.1 CEQA Baseline**

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

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

25 **3.8.4.1.2 NEPA Baseline**

26 For purposes of this Draft EIS/EIR, the evaluation of significance under NEPA is defined
27 by comparing the proposed Project or other alternative to the NEPA baseline. The NEPA
28 baseline conditions are described in Section 2.6.2. Briefly, the NEPA baseline condition
29 for determining significance of impacts includes the full range of construction and
30 operational activities the applicant could implement and is likely to implement absent a
31 federal action, in this case the issuance of a USACE permit. The NEPA baseline includes
32 minor terminal improvements in the upland area (i.e., conversion of a portion of the dry
33 container storage unit area to reefers and utility infrastructure), operation of the 291-acre
34 container terminal, and assumes that by 2027, the terminal (Berths 302 to 305) handles up
35 to approximately 2.15 million TEUs annually and accommodates 286 annual ships calls
36 and 2,336 on-way rail trips, without any federal action. Because the NEPA baseline is
37 dynamic, it includes different levels of terminal operations at each study year (2012, 2015,
38 2020, 2025, and 2027).

39 Unlike the CEQA baseline, which is defined by conditions at a point in time, the NEPA
40 baseline is not bound by statute to a “flat” or “no-growth” scenario. Therefore, the
41 USACE could project increases in operations over the life of a project to properly
42 describe the NEPA baseline condition. Normally, any federal permit decision would
43 focus on direct impacts of the proposed Project to the aquatic environment, as well as
44 indirect and cumulative impacts in the uplands determined to be within the scope of
45 federal control and responsibility. Significance of the proposed Project or alternative
46 under NEPA is defined by comparing the proposed Project or alternative to the NEPA
47 baseline (i.e., the increment).

1 The NEPA baseline, for purposes of this Draft EIS/EIR, is the same as the No Federal
 2 Action Alternative. Under the No Federal Action Alternative, only minor terminal
 3 improvements (utility infrastructure, and conversion of dry container storage to
 4 refrigerated container storage) would occur, but no new cranes would be added, and the
 5 terminal configuration would remain as it was configured in 2008 (291 acres, 12 A-frame
 6 cranes, and a 4,000-ft wharf). However, forecasted increases in cargo throughput and
 7 annual ship calls would still occur as container growth occurs.

8 **3.8.4.2 Thresholds of Significance**

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

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

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

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

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

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

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

28 **3.8.4.3 Impact Determination**

29 **3.8.4.3.1 Proposed Project**

30 **3.8.4.3.1.1 Construction Impacts**

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

35 The proposed Project would improve the existing terminal, develop the existing 41-acre
 36 fill area as backlands, construct electrification infrastructure in the backlands behind
 37 Berths 305-306, add 1,250 lf of new wharf at Berth 306, and dredge the Pier 300 Channel
 38 along Berth 306 (up to 20,000 cy in total could be dredged), with the dredged material
 39 disposed of or beneficially reused as fill off-site at approved disposal sites. Under this

1 alternative, 12 new cranes would be added to the wharves along Berths 302-306, for a
2 total of 24 cranes. Total terminal acreage would be 347 acres.

3 The proposed Project throughput is anticipated to be approximately 3.2 million TEUs in
4 2027. This would translate into 390 annual ship calls at Berths 302-306 by full build-out
5 (2027). In addition, the proposed Project would result in up to 11,361 peak daily truck
6 trips and 2,953 annual one-way-rail trip movements. Configuration of all other landside
7 terminal components would be identical to the existing terminal.

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

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

33 Implementation of the aforementioned construction and demolition standards would
34 minimize the potential for an accidental release of petroleum products, hazardous
35 materials, and/or explosion during construction/demolition activities at the proposed
36 Project site. Standards include, in addition to prevention measures, procedures designed
37 to effectively and efficaciously clean up spills and immediately implement remedial
38 actions. It is unlikely that construction and demolition activities would involve the use of
39 substantial quantities of hazardous materials and the most likely source of these materials
40 would be from vehicles at the site. There could be small amounts of hazardous materials
41 used to support dredge operations; however, these materials would be confined to the
42 barge. Thus, the most likely spills or releases of hazardous materials during construction
43 would involve petroleum products, such as diesel fuel, gasoline, oils, and lubricants.
44 Because construction/demolition-related spills are not uncommon, the probability of a
45 spill occurring is classified as “frequent” (more than once a year). However, such spills
46 are typically short-term and localized. This is attributable to the fact that the volume in
47 any single source vehicle is generally less than 50 gallons and fuel trucks that might be
48 present at the site are limited to 10,000 gallons or less. Thus, the potential consequence

1 of such accidents is classified as “slight,” resulting in a Risk Code of 4, which is
2 “acceptable.” However, there is also potential for release of contaminated soils from
3 dredging approximately 20,000 cy at Berth 306. Depending upon the quality of the
4 dredge sediments and site availability, dredged material would be beneficially reused
5 and/or disposed of at an approved disposal site (such as the CDF at Berths 243-245
6 and/or Cabrillo shallow water habitat). If these sites are unavailable or impracticable, an
7 ocean disposal site (LA-2) could be considered assuming the material was approved for
8 such use by the DMMT.

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

22 **CEQA Impact Determination**

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

27 *Mitigation Measures*

28 No mitigation is required.

29 *Residual Impacts*

30 Impacts would be less than significant.

31 **NEPA Impact Determination**

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

36 *Mitigation Measures*

37 No mitigation is required.

38 *Residual Impacts*

39 Impacts would be less than significant.

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

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

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

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

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

43 Implementation of these preventative measures would minimize the potential for spills to
44 affect members of the public, including on-site employees, and limit the adverse impacts
45 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.

1 During construction/demolition activities, the LAFD would require that adequate
2 vehicular access to the proposed Project site and vicinity be provided and maintained.
3 Prior to commencement of construction/demolition activities, all plans would be
4 reviewed by the LAFD to ensure adequate access is maintained throughout
5 construction/demolition. Traffic control equipment would be in place to direct local
6 traffic around the work area. During proposed Project construction, emergency access
7 would be maintained to all surrounding facilities. The proposed Project would
8 incorporate planning to assure that possible interference with emergency response and
9 evacuation plans does not occur. As such, emergency access to these sites would not be
10 adversely impacted during construction.

11 **CEQA Impact Determination**

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

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

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 Impacts would be less than significant.

33 **Impact RISK-4a: Construction of the proposed Project would comply 34 with applicable regulations and policies guiding development within 35 the Port.**

36 As described in Section 3.8.3.1, List of Regulations, the proposed Project is subject to
37 numerous regulations for development and operation of the proposed facilities. For
38 example, construction and demolition would be completed in accordance with RCRA,
39 HSWA, CERCLA, CCR Title 22 and Title 26, and the California Hazardous Waste
40 Control Law, which would govern proper containment, spill control, and disposal of
41 hazardous waste generated during demolition and construction activities. Implementation

1 of increased inventory accountability, spill prevention controls, and waste disposal controls
2 associated with these regulations would limit both the frequency and severity of potential
3 releases of hazardous materials.

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

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

31 **CEQA Impact Determination**

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

37 *Mitigation Measures*

38 No mitigation is required.

39 *Residual Impacts*

40 Impacts would be less than significant.

41 **NEPA Impact Determination**

42 Proposed Project construction/demolition would be completed using standard BMPs and
43 in accordance with LAHD plans and programs, LAFD regulations, LAMC requirements,

1 and applicable hazardous waste laws and regulations. Based on risk criterion RISK-4,
2 impacts relating to compliance with applicable regulations and policies guiding
3 development in the Port would be less than significant under NEPA.

4 *Mitigation Measures*

5 No mitigation is required.

6 *Residual Impacts*

7 Impacts would be less than significant.

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

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

22 The Port is subject to diurnal tides, meaning two high tides and two low tides during a
23 24-hour day. The average of the lowest water level during low tide periods each day is
24 typically set as a benchmark of 0 ft and is defined as Mean Lower-Low Water level (or
25 MLLW). For purposes of this discussion, all proposed Project structures and land
26 surfaces are expressed as height above (or below) MLLW. The mean sea level (MSL) in
27 the Port is +2.8 ft above MLLW (NOAA, 2011c). This height reflects the arithmetic
28 mean of hourly heights observed over the National Tidal Datum Epoch (19 years) and,
29 therefore, reflects the mean of both high and low tides in the Port. The recently
30 developed Port Complex model described in Section 3.5.2 predicts tsunami wave heights
31 with respect to MSL, rather than MLLW and, therefore, can be considered a reasonable
32 average condition under which a tsunami might occur. The Port MSL of +2.8 ft must be
33 considered in comparing projected tsunami run-up (i.e., amount of wharf overtopping and
34 flooding) to proposed wharf height and topographic elevations, which are measured with
35 respect to MLLW.

36 A reasonably foreseeable scenario for generation of a tsunami or seiche in the Port
37 Complex include the recently developed Port Complex model, which predicts tsunami
38 wave heights of approximately 1.6 ft to 6.0 ft above MSL for the earthquake scenarios
39 and approximately 5.3 ft to 13.7 ft above MSL for the landslide scenario at certain
40 locations within the Port. Incorporating the Port MSL of +2.8 ft, the model predicts
41 tsunami wave heights of a maximum 6.4 ft MLLW for earthquake scenario to 8.7 ft
42 MLLW for worst landslide scenario at the proposed Project site. Because the proposed
43 Project site elevation ranges from 10 to is approximately 15 ft above MLLW, localized
44 tsunami-induced flooding would not occur.

1 While the analysis above considers the greatest reasonably foreseeable seismic risk based
2 on a maximum seismic event, with respect to MSL, a theoretical maximum worst-case
3 wave action from a tsunami would result if the single highest tide predicted over the next
4 40 years at the Port Complex coincided with the seismic event. The single highest tide
5 predicted over the next 40 years is 7.3 ft above MLLW. This condition is expected to
6 occur less than one percent of the time over this 40-year period. If that very rare
7 condition were to coincide with a maximum tsunami event, the model predicts tsunami
8 wave heights of 8.6 to 12.6 ft above MLLW at the proposed Project site. Because the
9 proposed Project site elevation is approximately 15 ft above MLLW, localized tsunami-
10 induced flooding would not occur. However such an event could result in damage to
11 property or injury related to in-water construction. However, given the limited duration
12 of in-water construction activities and very low likelihood of a worst-case tsunami
13 occurring during construction activities, this scenario is unlikely to occur.

14 The most likely worst-case tsunami scenario was based partially on a magnitude
15 7.6 earthquake on the offshore Santa Catalina fault. The recurrence interval for a
16 magnitude 7.5 earthquake along an offshore fault in the Southern California Continental
17 Borderland is about 10,000 years. Similarly, the recurrence interval of a magnitude
18 7.0 earthquake is about 5,000 years, and the recurrence interval of a magnitude
19 6.0 earthquake is about 500 years. However, there is no certainty that any of these
20 earthquake events would result in a tsunami, because only about 10 percent of
21 earthquakes worldwide result in a tsunami. In addition, available evidence indicates that
22 tsunamigenic landslides would be extremely infrequent and occur less often than large
23 earthquakes. This suggests recurrence intervals for such landslide events would be
24 longer than the 10,000-year recurrence interval estimated for a magnitude 7.5 earthquake
25 (Moffatt and Nichol, 2007). Thus, the probability of the worst-case combination of a
26 large tsunami and extremely high tides would be less than once in a 100,000-year period.

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

32 **CEQA Impact Determination**

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

37 *Mitigation Measures*

38 No mitigation is required.

39 *Residual Impacts*

40 Impacts would be less than significant.

41

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

1 vehicles or vessels. The potential for a terrorist attack that would result in catastrophic
2 consequences (greater than 100 injuries or 10 fatalities) to areas near the proposed Project
3 site during the construction period is considered extraordinarily improbable given the
4 limited construction duration and the limited access to the construction areas. This
5 combination would result in a Risk Code of 4, which is “acceptable,” and impacts would
6 be less than significant under criterion RISK-6.

7 *Mitigation Measures*

8 No mitigation is required.

9 *Residual Impacts*

10 Impacts would be less than significant.

11 **NEPA Impact Determination**

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **3.8.4.3.1.2 Operational Impacts**

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

30 APL Terminal operations would be subject to safety regulations that govern the shipping,
31 transport, storage, and handling of hazardous materials, which would limit the severity
32 and frequency of potential releases of hazardous materials resulting in increased exposure
33 of people to health hazards (i.e., Port RMP, USCG and LAFD regulations and
34 requirements, and DOT regulations). For example, as discussed in Section 3.8.3.1, List
35 of Regulations, and summarized below, the USCG maintains a HMSD, under the
36 jurisdiction of the federal Department of Homeland Security (33 CFR Part 126), which
37 develops standards and industry guidance to promote the safety of life and protection of
38 property and the environment during marine transportation of hazardous materials. In
39 addition, the DOT Hazardous Materials Regulations (Title 49 CFR Parts 100-185)
40 regulate almost all aspects of terminal operations. Parts 172 (Emergency Response),
41 173 (Packaging Requirements), 174 (Rail Transportation), 176 (Vessel Transportation),

1 177 (Highway Transportation), 178 (Packaging Specifications) and 180 (Packaging
2 Maintenance) would all apply to the proposed Project activities.

3 APL Terminal operations involving hazardous materials are also governed by the LAFD
4 in accordance with regulations of state and federal departments of transportation
5 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
6 highway system is regulated by Caltrans procedures and the Standardized Emergency
7 Management System prescribed under Section 8607 of the California Government Code.
8 These safety regulations strictly govern the storage of hazardous materials in containers
9 (i.e., types of materials and size of packages containing hazardous materials).
10 Implementation of increased hazardous materials inventory control and spill prevention
11 controls associated with these regulations would limit both the frequency and severity
12 of potential releases of hazardous materials.

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

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

26 During the period 2006-2009, which encompasses the baseline period, there were
27 39 hazardous material spills directly associated with container terminals in the Port
28 Complex, including spills from vessels serving the terminals. This equates to
29 approximately ten spills per year for the entire Port Complex. During this period, the
30 total throughput of the container terminals at both Ports was 31,423,871 TEUs.
31 Therefore, the probability of a spill at a container terminal can be estimated at 1.24×10^{-6}
32 per TEU (39 spills divided by 31,423,871 TEUs). This simply means that for every
33 805,741 TEUs, a spill is probable. This spill probability conservatively represents the
34 baseline hazardous material spill probability because it includes materials that would not
35 be considered a risk to public safety (e.g., perfume spills), but would still be considered
36 an environmental hazard. The probability of spills associated with future operations
37 would be based on the spill probability per TEU times the increase in TEUs under the
38 proposed Project. It should be noted, with respect to hazardous material spills that during
39 this period there were no reported impacts to the public (injuries, fatalities, and
40 evacuations).

41 Applying the same spill probability (1.24×10^{-6} per TEU) to the projected 2027 Port-wide
42 cargo throughput of 30,439,800 TEUs, the potential spills would increase to
43 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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|------------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline* | 1,128,080 | NA | 1.4 |
| Project (2027) | 3,206,000 | 184.2 % | 3.9 |

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.

1 *Mitigation Measures*
 2 No mitigation is required.

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

5 **NEPA Impact Determination**

6 Under the NEPA baseline, Berths 302-305 could handle up to approximately
 7 2,153,000 TEUs by year 2027. Operation of the proposed Project (Berths 302-306)
 8 would handle approximately 3,206,000 TEUs per year when functioning at maximum
 9 capacity (in 2027). This would equate to a more than a 1.5-fold increase in throughput
 10 capacity over NEPA baseline conditions.

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

Table 3.8-6: Proposed Project: Existing and Projected Cargo Throughput Volumes at Berths 302-306 and the Port Complex

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|-----------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| NEPA Project Baseline | 2,153,000 | NA | 2.7 |
| Project (2027) | 3,206,000 | 48.9 % | 3.9 |

Note:
 TEU = 20-ft equivalent unit

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

29

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

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

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

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

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

35 Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008
36 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the
37 total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total
38 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the
39 sources of data for this analysis, which primarily examined fatalities associated with
40 vehicle impact and trauma.

41 Because the occurrence of truck accidents associated with Berths 302-306 occur at a
42 frequency greater than one per year, truck accidents are considered a “frequent” event.
43 The possibility exists for increased injury and/or fatality to occur relative to baseline
44 conditions, which is 12.4 (11.7 injury probability + 0.7 fatality probability), as noted in

1 Table 3.8-7. The consequence of such accidents is classified as “severe” because the
 2 probable number of injuries is more than 10, and results in a Risk Code of 2. An impact
 3 with a Risk Code of 2 is classed as undesirable, or significant, and requires additional
 4 engineering or administrative controls to mitigate the potentially significant adverse
 5 impacts, per the LACFD risk criticality (Table 3.8-4).

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

16 CEQA Impact Determination

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

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

Table 3.8-7: Proposed Project: Existing and Projected Truck Trips at Berths 302-306

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| CEQA Project Baseline | 1,128,080 | 40.4 | 7.0 | 0.4 |
| Project (2027) | 3,003,157 | 107.4 | 18.7 | 1.2 |
| Increase over CEQA Baseline Conditions | 1,875,077 | 67.1 | 11.7 | 0.7 |

Note: numbers are rounded

26 The Port also is currently phasing out older trucks as part of its Clean Truck Program,
 27 and the TWIC program will help identify and exclude truck drivers that lack the proper
 28 licensing and training. The phasing out of older trucks would reduce the probability of
 29 accidents that occur as a result of mechanical failure by approximately 10 percent (ADL,
 30 1990). Proper driver training, or more specifically, the reduction in the number of drivers
 31 that do not meet minimum training specifications, would further reduce potential
 32 accidents by approximately 30 percent (Moser, 2000). This 30-percent reduction in the
 33 accident rate would result in fewer injury and/or fatality conditions, as described above.
 34 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 to 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 3.8-8: Proposed Project: Existing and Projected Truck Trips at Berths 302-306

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|---------------------------|---------------------------------|--------------------------------------|--|
| NEPA Project Baseline | 1,922,497 | 68.8 | 11.9 | 0.7 |
| Project (2027) | 3,003,157 | 107.4 | 18.7 | 1.2 |
| Increase over NEPA Baseline Conditions | 1,080,660 | 38.7 | 6.7 | 0.4 |

Note: numbers are rounded

1 The Port also is currently phasing out older trucks as part of its Clean Truck Program,
2 and the TWIC program will help identify and exclude truck drivers that lack the proper
3 licensing and training. The phasing out of older trucks would reduce the probability of
4 accidents that occur as a result of mechanical failure by approximately 10 percent
5 (ADL, 1990). Proper driver training, or more specifically, the reduction in the number of
6 drivers that do not meet minimum training specifications, would further reduce potential
7 accidents by approximately 30 percent (Moser, 2000). This 30-percent reduction in the
8 accident rate would result in fewer injury and/or fatality conditions, as described above.
9 Assuming a 30-percent reduction, the proposed Project's accident rate would be 75.2,
10 injury rate would be 13.1 and the fatality rate would be 0.83. When compared to the
11 NEPA baseline condition, the accident rate would increase by 6.4, the injury rate would
12 increase by 1.1, and the fatality rate would increase by 0.1. The accident rate would be
13 classified as "moderate" because it is less than 10, and would result in a Risk Code of 3.
14 An impact with a Risk Code 3 is classed as acceptable with additional engineering or
15 administrative controls to mitigate the potentially significant adverse impacts.
16 Additionally, trucks would be inspected at the Roadability facility prior to leaving the
17 terminal.

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

24 *Mitigation Measures*

25 No mitigation is required.

26 *Residual Impacts*

27 Impacts would be less than significant.

28 **Impact RISK-3b: Proposed Project operations would not** 29 **substantially interfere with any existing emergency response plans** 30 **or emergency evacuation plans.**

31 The proposed Project would optimize terminal operations by improving the existing
32 terminal, extending the existing wharf to add a new berth, adding new cranes, and
33 expanding existing container terminal to accommodate modern container terminal ships,
34 and implementing transportation infrastructure improvements. The Berths 302-306
35 container terminal would operate similar to other terminals on Terminal Island. The
36 proposed terminal operations would not interfere with any existing contingency plans,
37 because the terminal improvements and related terminal operations would be confined to
38 the Project site, because current activities are consistent with the contingency plans, and
39 the proposed Project would not add any additional activities that would be inconsistent
40 with these plans. In addition, existing oil spill contingency and emergency response
41 plans for the proposed Project site would be revised to incorporate proposed facility and
42 operational changes. Because existing management plans are commonly revised to
43 incorporate terminal operation changes, conflicts with existing contingency and
44 emergency response plans are not anticipated.

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

10 **CEQA Impact Determination**

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

16 *Mitigation Measures*

17 No mitigation is required.

18 *Residual Impacts*

19 Impacts would be less than significant.

20 **NEPA Impact Determination**

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

26 *Mitigation Measures*

27 No mitigation is required.

28 *Residual Impacts*

29 Impacts would be less than significant.

30 **Impact RISK-4b: The proposed Project would comply with applicable** 31 **regulations and policies guiding development within the Port.**

32 The proposed Project is subject to numerous regulations for operation of the proposed
33 facilities. LAHD has implemented various plans and programs to ensure compliance
34 with these regulations, which must be adhered to during terminal operation. For example,
35 as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a HMSD, under
36 the jurisdiction of the federal Department of Homeland Security (33 CFR Part 126),
37 which develops standards and industry guidance to promote the safety of life and
38 protection of property and the environment during marine transportation of hazardous
39 materials. Among other requirements, the proposed Project would conform to the USCG
40 requirement to provide a segregated cargo area for containerized hazardous materials.
41 Terminal cargo operations involving hazardous materials are also governed by the LAFD

1 in accordance with regulations of state and federal departments of transportation
2 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
3 highway system is regulated by Caltrans procedures and the Standardized Emergency
4 Management System prescribed under Section 8607 of the California Government Code.
5 These safety regulations strictly govern the storage of hazardous materials in containers
6 (i.e., types of materials and size of packages containing hazardous materials). In addition,
7 any facility constructed in the proposed Project area that is identified as a hazardous
8 cargo facility or a vulnerable resource, would be required to conform to the RMP. This
9 includes packaging constraints and the provision of a separate storage area for hazardous
10 cargo.

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

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

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

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

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

6 **CEQA Impact Determination**

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

14 *Mitigation Measures*

15 No mitigation is required.

16 *Residual Impacts*

17 Impacts would be less than significant.

18 **NEPA Impact Determination**

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

26 *Mitigation Measures*

27 No mitigation is required.

28 *Residual Impacts*

29 Impacts would be less than significant.

30 **Impact RISK-5b: Tsunami-induced flooding and seismic events 31 could result in fuel releases from ships or hazardous substances 32 releases from containers, which in turn could result in risks to 33 persons and/or the environment.**

34 As discussed in Section 3.5, Geology, and under RISK-5a above, there is the potential for
35 a large tsunami to affect the Port. Because the proposed Project site elevation is
36 approximately 15 ft above MLLW, localized tsunami-induced flooding would not occur.
37 However, a large tsunami could potentially lead to a fuel spill if a moored vessel is
38 present. Although crude oil tankers would not moor at Berths 302-305, each ship
39 contains large quantities of fuel oil (up to 5,000 barrels). While in transit, the hazards
40 posed to tankers are insignificant, and in most cases, imperceptible. However, while
41 docked, a tsunami striking the Port could cause significant ship movement. Most likely,

1 the vessel would stay secured to the berth and ride out the tsunami, however it is possible
2 that the motion during a tsunami would cause the mooring lines of the vessel to break
3 free and the vessel would be set adrift. Under the first scenario, the transmitted energy of
4 the tsunami wave goes through the vessel moored at berth and into the wharf. Forces
5 transmitted through the vessel would be transferred to the fendering system of the wharf
6 and then to the wharf structure. Under the second scenario, a vessel set adrift in the Port
7 area could have serious consequences from the potential of collision, including a
8 potential hull breach and possible fuel spill.

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

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

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

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

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

3 **CEQA Impact Determination**

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

7 *Mitigation Measures*

8 No mitigation is required.

9 *Residual Impacts*

10 Impacts would be less than significant.

11 **NEPA Impact Determination**

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

15 *Mitigation Measures*

16 No mitigation is required.

17 *Residual Impacts*

18 Impacts would be less than significant.

19 **Impact RISK-6b: A potential terrorist attack could result in adverse** 20 **consequences to areas near the proposed Project site during the** 21 **operations period.**

22 **Risk of Terrorist Actions Associated with Project Operations**

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

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

34 **Consequences of Terrorist Attack**

35 The risks associated with terrorism discussed in Section 3.8.2.4 during construction
36 would apply to the terminal during operations. The potential consequences of a terrorist
37 action on a container terminal would be catastrophic, specifically in terms of
38 environmental and economic impacts. A terrorist action involving a container vessel

1 while at berth may result in a fuel and/or commodity spill and its associated
2 environmental damage. Within the Port, a terrorist action could block key waterways and
3 result in economic disruption. Potential environmental damage would include fuel and/or
4 commodity spills into the marine environment, with associated degradation of water
5 quality and damage to marine biological resources. Container ships typically carry up to
6 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts
7 would be limited to the area surrounding the point of attack and would be contained by
8 the relevant oil spill response contractor. A potential fire associated with a terrorist
9 attack could result in short-term impacts to local air quality. Such potential impacts to
10 the environment are addressed in specific resource sections including air quality
11 (Section 3.2), biology (Section 3.3), and water quality (Section 3.14).

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

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

30 **CEQA Impact Determination**

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

34 *Mitigation Measures*

35 No mitigation is required.

36 *Residual Impacts*

37 Impacts would be less than significant.

38 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **3.8.4.3.2 Alternatives**

6 **3.8.4.3.2.1 Alternative 1 – No Project**

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

15 Under the No Project Alternative, the existing APL Terminal would continue to operate
16 as an approximately 291-acre container terminal. Based on the throughput projections,
17 terminal operations are expected to grow over time as throughput demands increase.
18 Under Alternative 1, the existing APL Terminal would handle approximately 2.15
19 million TEUs by 2027, which would result in 286 annual ship calls at Berths 302-305. In
20 addition, this alternative would result in up to 7,273 peak daily one-way truck trips
21 (1,922,497 annual), and up to 2,336 annual one-way rail trip movements. Under
22 Alternative 1, cargo ships that currently berth and load/unload at the Berths 302-305
23 terminal would continue to do so.

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

28 **3.8.4.3.2.1.1 Construction Impacts**

29 **CEQA Impact Determination**

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

33 *Mitigation Measures*

34 No mitigation is required.

35 *Residual Impacts*

36 There would be no impacts.

37

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.

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

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

14 During the period 2006-2009, there were 39 hazardous material spills directly associated
 15 with container terminals in the Ports of Los Angeles and Long Beach. This equates to
 16 approximately ten spills per year for the entire Port Complex. During this period, the
 17 total throughput of the container terminals was 31,423,871 TEU. Therefore, the
 18 probability of a spill at a container terminal can be estimated at 1.24×10^{-6} per TEU
 19 (39 spills divided by 31,423,871 TEU). This spill probability conservatively represents
 20 the baseline hazardous material spill probability because it includes materials that would
 21 not be considered a risk to public safety (e.g., perfume spills) but nevertheless would be
 22 considered an environmental hazard. The probability of spills associated with future
 23 operations would be based on the spill probability per TEU times the increment in TEUs
 24 under the alternative project. It should be noted that during this period there were no
 25 reported impacts to the public (injuries, fatalities, and evacuations).

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

Table 3.8-9: Alternative 1: Existing and Projected Capacity (TEUs) at Berths 302-305

| Operations | TEUs | Increase in TEUs (%) | Potential Spills (per year) |
|------------------------|------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline* | 1,128,080 | NA | 1.4 |
| Alternative 1 (2027) | 2,153,000 | 90.1 % | 2.7 |

Note:

*CEQA Baseline – July 2008-June 2009

TEU = 20-ft equivalent unit

29 Based on the projected increase in TEUs occupying the terminal site, the frequency of
 30 potential Alternative 1-related spills would increase from 1.4 to 2.7 spills per year. This
 31 spill frequency would be classified as “frequent” (greater than once per year). Because,
 32 based on history, a slight possibility exists for injury and or property damage to occur
 33 during one of these frequent accidents, the consequence of such accidents is classified as

1 “slight”, resulting in a Risk Code of 4, which is “acceptable”. It should be noted that
2 there were no impacts to the public from any of the hazardous materials spills that were
3 reported during the 2006-2009 period. Compliance with applicable federal, state, and
4 local laws and regulations governing the transport of hazardous materials and emergency
5 response to hazardous material spills, as described above, would minimize the potentials
6 for adverse public health impacts. Therefore, under CEQA, Alternative 1 operations
7 would not substantially increase the probable frequency and severity of consequences to
8 people or property as a result of an accidental release or explosion of a hazardous
9 substance. Impacts under CEQA would be less than significant under criterion RISK-1.

10 *Mitigation Measures*

11 No mitigation is required.

12 *Residual Impacts*

13 Impacts would be less than significant.

14 **NEPA Impact Determination**

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

18 *Mitigation Measures*

19 Mitigation measures are not applicable.

20 *Residual Impacts*

21 An impact determination is not applicable.

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

25 **CEQA Impact Determination**

26 Under Alternative 1, the APL Terminal operations would accommodate a maximum of
27 2,153,000 TEUs per year when optimized and functioning at maximum capacity (in
28 2027). This compares to 1,128,080 TEUs under baseline conditions (2008-2009). The
29 increased volume would increase the chance of a fire or explosion at the terminal. The
30 handling and storing of increased quantities of hazardous materials would increase the
31 probability of a local accident involving a release, spill, fire, or explosion, which is
32 proportional to the size of the terminal and TEUs at the site as addressed in Impact
33 RISK-1b.

34 Given the annual number of truck trips, the average distance of each trip, and the
35 published accident, injury and fatality rates, probabilities were estimated as shown in
36 Table 3.8-10.

37

Table 3.8-10: Alternative 1: Existing and Projected Truck Trips at Berths 302-305

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| CEQA Project Baseline | 1,128,080 | 40.4 | 7.0 | 0.4 |
| Alternative 1 (2027) | 1,922,497 | 68.8 | 11.9 | 0.7 |
| Increase over CEQA Baseline Conditions | 794,417 | 28.4 | 4.9 | 0.3 |

Note: numbers are rounded

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

15 *Mitigation Measure*

16 No mitigation is required.

17 *Residual Impacts*

18 Impacts would be less than significant.

19 **NEPA Impact Determination**

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

23 *Mitigation Measures*

24 Mitigation measures are not applicable.

25 *Residual Impacts*

26 An impact determination is not applicable.

1 **Impact RISK-3b: Alternative 1 operations would not substantially**
2 **interfere with any existing emergency response plans or emergency**
3 **evacuation plans.**

4 **CEQA Impact Determination**

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

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

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

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 Impacts would be less than significant.

27 **NEPA Impact Determination**

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

31 *Mitigation Measures*

32 Mitigation measures are not applicable.

33 *Residual Impacts*

34 An impact determination is not applicable.

1 **Impact RISK-4b: Alternative 1 operations would comply with**
2 **applicable regulations and policies guiding development within the**
3 **Port.**

4 **CEQA Impact Determination**

5 Operation of Alternative 1 would be subject to the same regulations and procedures as
6 described for the proposed Project. LAHD has implemented various plans and programs
7 to ensure compliance with these regulations, which must be adhered to during Alternative
8 1 operations. For example, as discussed in Section 3.8.3.1, List of Regulations, the
9 USCG maintains a HMSD, under the jurisdiction of the federal Department of Homeland
10 Security (33 CFR Part 126), which develops standards and industry guidance to promote
11 the safety of life and protection of property and the environment during marine
12 transportation of hazardous materials. Among other requirements, Alternative 1
13 operations would conform to the USCG requirement to provide a segregated cargo area
14 for containerized hazardous materials. Terminal cargo operations involving hazardous
15 materials are also governed by the LAFD in accordance with regulations of state and
16 federal departments of transportation (49 CFR Part 176). The transport of hazardous
17 materials in containers on the street and highway system is regulated by Caltrans
18 procedures and the Standardized Emergency Management System, prescribed under
19 Section 8607 of the California Government Code. These safety regulations strictly
20 govern the storage of hazardous materials in containers (i.e., types of materials and size
21 of packages containing hazardous materials). Any facilities identified as either a
22 hazardous cargo facility or a vulnerable resource would be required to conform to the
23 RMP, which includes packaging constraints and the provision of a separate storage area
24 for hazardous cargo.

25 LAHD maintains compliance with these state and federal laws through a variety of
26 methods, including internal compliance reviews, preparation of regulatory plans, and
27 agency oversight. Most notably, the Port RMP implements development guidelines in an
28 effort to minimize the danger of accidents to vulnerable resources. This would be
29 achieved mainly through physical separation as well as through facility design features,
30 fire protection, and other risk management methods. There are two primary categories of
31 vulnerable resources: people and facilities. People are further divided into subgroups.
32 The first subgroup is comprised of residences, recreational users, and visitors. Within the
33 Port setting, residences and recreational users are considered vulnerable resources. The
34 second subgroup is comprised of workers in high density (i.e., generally more than
35 10 people per acre, per employer).

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

43 High Value Facilities are non-hazardous facilities, in and near the Ports, which have very
44 high economic value. These facilities include both facility improvements and cargo
45 in-place, such as container storage areas. However, the determination of a vulnerable
46 resource is made by the Port and LAFD on a case-by-case basis. Although the Port
47 generally considers container terminals to be High Value Facilities, these types of

1 facilities have never been considered vulnerable resources in risk analyses completed by
2 the Port and LAFD (POLA, 2008). Because container terminals are not considered
3 vulnerable resources, and because Alternative 1 would not increase the exposure of the
4 residential or recreational users to increased risk, this alternative would not conflict with
5 the RMP.

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

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

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **NEPA Impact Determination**

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

29 *Mitigation Measures*

30 Mitigation measures are not applicable.

31 *Residual Impacts*

32 An impact determination is not applicable.

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

5 **CEQA Impact Determination**

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

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

31 *Mitigation Measures*

32 No mitigation is required.

33 *Residual Impacts*

34 Impacts would be less than significant.

35 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 Mitigation measures are not applicable.

3 *Residual Impacts*

4 An impact determination is not applicable.

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

8 **CEQA Impact Determination**

9 **Risk of Terrorist Actions Associated with Operations**

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

16 **Consequences of Terrorist Attack**

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

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 Impacts would be less than significant.

34 **NEPA Impact Determination**

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

38

1 *Mitigation Measures*
2 Mitigation measures are not applicable.

3 *Residual Impacts*
4 An impact determination is not applicable.

5 **3.8.4.3.2.2 Alternative 2 – No Federal Action**

6 The No Federal Action Alternative would be the same as the NEPA baseline and would
7 include only the activities and impacts likely to occur absent further USACE federal
8 approval but could include improvements that require a local action. Under Alternative 2,
9 no federal action would occur; however, minor terminal improvements in the upland area
10 of the existing APL Terminal would be implemented. These minor upland improvements
11 would include conversion of a portion of the dry container storage area to an additional
12 200 reefers, associated electrical lines, and installation of utility infrastructure at locations
13 in the existing backland areas. Beyond these minor upland improvements, the Port would
14 not construct and develop additional backlands or wharves. No gate or additional
15 backland improvements would occur, and no in-water features such as dredging or a new
16 berth, wharf extension, or over-water features such as new cranes would occur under the
17 No Federal Action Alternative.

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

26 **3.8.4.3.2.2.1 Construction Impacts**

27 **CEQA Impact Determination**

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

33 *Mitigation Measures*
34 No mitigation is required.

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

37 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

5 **3.8.4.3.2.2.2 Operational Impacts**

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

10 **CEQA Impact Determination**

11 Under Alternative 2, the APL Terminal site would accommodate a maximum of
12 2,153,000 TEUs per year when optimized and functioning at maximum capacity (in
13 2027). This compares to 1,128,080 TEUs under baseline conditions (2008-2009).
14 Terminal operations would be subject to safety regulations that govern the storage and
15 handling of hazardous materials, which would limit the severity and frequency of
16 potential releases of hazardous materials resulting in increased exposure of people to
17 health hazards (i.e., Port RMP, USCG and LAFD regulations and requirements, and DOT
18 regulations). For example, as discussed in Section 3.8.3.1, List of Regulations, and
19 summarized below, the USCG maintains a HMSD, under the jurisdiction of the federal
20 Department of Homeland Security (33 CFR Part 126), which develops standards and
21 industry guidance to promote the safety of life and protection of property and the
22 environment during marine transportation of hazardous materials. In addition, the DOT
23 Hazardous Materials Regulations (Title 49 CFR Parts 100-185) regulate almost all
24 aspects of terminal operations. Parts 172 (Emergency Response), 173 (Packaging
25 Requirements), 174 (Rail Transportation), 176 (Vessel Transportation), 177 (Highway
26 Transportation), 178 (Packaging Specifications), and 180 (Packaging Maintenance)
27 would all apply to the alternative Project activities.

28 Terminal cargo operations involving hazardous materials are also governed by the LAFD
29 in accordance with regulations of state and federal departments of transportation
30 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
31 highway system is regulated by Caltrans procedures and the Standardized Emergency
32 Management System prescribed under Section 8607 of the California Government Code.
33 These safety regulations strictly govern the storage of hazardous materials in containers
34 (i.e., types of materials and size of packages containing hazardous materials).
35 Implementation of increased hazardous materials inventory control and spill prevention
36 controls associated with these regulations would limit both the frequency and severity of
37 potential releases of hazardous materials.

38 Terminal maintenance activities would involve the use of hazardous materials such as
39 petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that
40 exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code
41 would be subject to an RRP and HMI. Implementation of increased inventory
42 accountability and spill prevention controls associated with this RRP and HMI would
43 limit both the frequency and severity of potential releases of hazardous materials. Based
44 on the limited volumes that could potentially spill, quantities of hazardous materials used

1 at Berths 302-305 that are below the thresholds of Chapter 6.95 would not likely result in
2 a substantial release into the environment.

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

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

Table 3.8-11: Alternative 2: Existing and Projected Capacity (TEUs) at Berths 302-305

| Operations | TEUs | Increase in TEUs (%) | Potential Spills (per year) |
|------------------------|------------|----------------------------|--------------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline* | 1,128,080 | NA | 1.4 |
| Alternative 2 (2027) | 2,153,000 | 90.8 % | 2.7 |

Note:

*CEQA Baseline – July 2008-June 2009

TEU = 20-ft equivalent unit

10 Based on the projected increase in TEUs occupying the terminal site, the frequency of
11 potential Alternative 2-related spills would increase from 1.4 to 2.7 spills per year. This
12 spill frequency would be classified as “frequent” (between once per year and once in
13 10 years). Because, based on history, a slight possibility exists for injury and or property
14 damage to occur during one of these frequent accidents, the consequence of such
15 accidents is classified as “slight,” resulting in a Risk Code of 4, which is “acceptable”. It
16 should be noted that there were no impacts to the public from any of the hazardous
17 materials spills that were reported during the 2006-2009 period. Compliance with
18 applicable federal, state, and local laws and regulations governing the transport of
19 hazardous materials and emergency response to hazardous material spills, as described
20 above, would minimize the potentials for adverse public health impacts. Therefore,
21 under CEQA, Alternative 2 operations would not substantially increase the probable
22 frequency and severity of consequences to people or property as a result of an accidental
23 release or explosion of a hazardous substance. Impacts under CEQA would be less than
24 significant under criterion RISK-1.

25 *Mitigation Measures*

26 No mitigation is required.

27 *Residual Impacts*

28 Impacts would be less than significant.

29

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.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

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

8 **CEQA Impact Determination**

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

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

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

27 *Mitigation Measures*

28 No mitigation is required.

29 *Residual Impacts*

30 Impacts would be less than significant.

31 **NEPA Impact Determination**

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

36

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

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

8 **CEQA Impact Determination**

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

29 LAHD maintains compliance with these state and federal laws through a variety of
30 methods, including internal compliance reviews, preparation of regulatory plans, and
31 agency oversight. Most notably, the Port RMP implements development guidelines in an
32 effort to minimize the danger of accidents to vulnerable resources. This would be
33 achieved mainly through physical separation as well as through facility design features,
34 fire protection, and other risk management methods. There are two primary categories of
35 vulnerable resources: people and facilities. People are further divided into subgroups.
36 The first subgroup is comprised of residences, recreational users, and visitors. Within the
37 Port setting, residences and recreational users are considered vulnerable resources. The
38 second subgroup is comprised of workers in high density (i.e., generally more than
39 10 people per acre, per employer).

40 Facilities that are vulnerable resources include Critical Regional Activities/Facilities and
41 High Value Facilities. Critical Regional Activities/Facilities are facilities in the Port that
42 are important to the local or regional economy, the national defense, or some major
43 aspect of commerce. These facilities typically have a large quantity of unique equipment,
44 a very large working population, and are critical to both the economy and to national

1 defense. Such facilities in the Port have been generally defined in the Port RMP as the
2 former Todd Shipyard, Fish Harbor, Badger Avenue Bridge, and Vincent Thomas Bridge.

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

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

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

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

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 Impacts would be less than significant.

32 **NEPA Impact Determination**

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

37 *Mitigation Measures*

38 No mitigation is required.

39 *Residual Impacts*

40 There would be no impacts.

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

5 **CEQA Impact Determination**

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

15 Impacts due to seismically induced tsunamis and seiches are typical for the entire
16 California coastline and would not be increased by Alternative 2 operations. Because a
17 major tsunami is not expected during the life of Alternative 2, but could occur (see
18 Section 3.5, Geology, and RISK-5a under the proposed Project for additional information
19 on the probability of a major tsunami), the probability of a major tsunami occurring is
20 classified as “improbable”. The consequence of such an event is classified as “moderate,”
21 resulting in a Risk Code of 4, which is “acceptable.” The volume of spilled fuel is also
22 expected to be relatively low because all fuel storage containers at the Project site would
23 be quite small in comparison to the significance criteria volumes. Given that single-
24 hulled vessels would not be used, there is a minimal chance of a substantive fuel spill.
25 While there would be fuel-containing equipment present during operation, most
26 equipment is equipped with watertight tanks, with the most likely scenario being the
27 infiltration of water into the tank and fuel combustion chambers and very little fuel
28 spilled. Thus, the volume spilled in the event of a tsunami would likely be less than
29 10,000 gallons, which is considered “slight.” In light of such a low probability and
30 acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would be
31 less than significant as they pertain to hazardous materials spills under criterion RISK-5.

32 *Mitigation Measures*

33 No mitigation is required.

34 *Residual Impacts*

35 Impacts would be less than significant.

36 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 There would be no impacts.

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

8 **CEQA Impact Determination**

9 **Risk of Terrorist Actions Associated with Operations**

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

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

21 **Consequences of Terrorist Attack**

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

35 *Mitigation Measures*

36 No mitigation is required.

37 *Residual Impacts*

38 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

1 Quality Order 99-08-DWQ) and Project-specific SWPPP (see Section 3.14, Water
2 Quality, Sediments, and Oceanography, for more information).

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

7 Because construction/demolition-related spills are not uncommon, the probability of a
8 spill occurring is classified as “frequent” (more than once a year). However, because
9 such spills are typically short-term and localized, mainly due to the fact that the volume
10 in any single vehicle is generally less than 50 gallons and fuel trucks are limited to
11 10,000 gallons or less, the potential consequence of such accidents is classified as “slight,”
12 resulting in a Risk Code of 4, which is “acceptable.”

13 **CEQA Impact Determination**

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

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

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 Impacts would be less than significant.

32 **Impact RISK-2a: Construction/demolition activities would not** 33 **substantially increase the probable frequency and severity of** 34 **consequences to people from exposure to health hazards.**

35 Risk of potentially upset impacts during construction would be reduced compared to
36 those described for the proposed Project because Alternative 3 would result in less
37 construction. Under Alternative 3, no new wharf or terminal expansion would occur, but
38 four new cranes would be added. Additionally, the potential for construction equipment
39 to spill oil, gas, or fluids during normal usage or during refueling would be reduced.

1 Therefore, relative to the proposed Project, Alternative 3 would reduce the potential for
2 an accidental release of hazardous materials and/or contamination of soil or water and
3 would reduce the potential for an accidental release from a fire or explosion during
4 construction activities.

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

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

33 **CEQA Impact Determination**

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

38 *Mitigation Measures*

39 No mitigation is required.

40 *Residual Impacts*

41 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.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

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

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

10 **CEQA Impact Determination**

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

17 *Mitigation Measures*

18 No mitigation is required.

19 *Residual Impacts*

20 Impacts would be less than significant.

21 **NEPA Impact Determination**

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

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 Impacts would be less than significant.

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

36 As discussed in Section 3.5, Geology, and RISK-5a under the proposed Project, there is
37 the potential for a major or great earthquake or large tsunami to affect the Port. Either
38 event could lead to a fuel spill from demolition and/or construction equipment, as well as

1 from containers of petroleum products and hazardous substances used during the
2 demolition/construction period, if such an event occurs during construction. Unfinished
3 structures are especially vulnerable to damage from earthquakes and tsunamis during the
4 construction period.

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

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

15 **CEQA Impact Determination**

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **NEPA Impact Determination**

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

31 *Mitigation Measures*

32 No mitigation is required.

33 *Residual Impacts*

34 Impacts would be less than significant.

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

4 **Risk of Terrorist Actions during Construction**

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

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

18 **Consequences of Terrorist Attack during Construction**

19 During construction, a terrorist action could block key road access points and waterways
20 and result in economic disruption. A terrorist attack would be catastrophic, especially in
21 terms of the potential environmental damage such as fuel and/or commodity spills into
22 the marine environment, with associated degradation of water quality and damage to
23 marine biological resources, and economic impacts. Container ships typically carry up to
24 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts
25 would likely be limited to the area surrounding the point of attack and would be
26 responded to by emergency response providers. A potential fire associated with a
27 terrorist attack could result in short-term impacts to local air quality.

28 **CEQA Impact Determination**

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

31 *Mitigation Measures*

32 No mitigation is required.

33 *Residual Impacts*

34 Impacts would be less than significant.

35 **NEPA Impact Determination**

36 This combination would result in a Risk Code of 4 that is "acceptable"; therefore,
37 impacts under NEPA would be less than significant based on criterion RISK-6.

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **3.8.4.3.2.3.2 Operational Impacts**

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

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

24 Terminal cargo operations involving hazardous materials are also governed by the LAFD
25 in accordance with regulations of state and federal departments of transportation
26 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
27 highway system is regulated by Caltrans procedures and the Standardized Emergency
28 Management System prescribed under Section 8607 of the California Government Code.
29 These safety regulations strictly govern the storage of hazardous materials in containers
30 (i.e., types of materials and size of packages containing hazardous materials).
31 Implementation of increased hazardous materials inventory control and spill prevention
32 controls associated with these regulations would limit both the frequency and severity of
33 potential releases of hazardous materials.

34 Terminal maintenance activities would involve the use of hazardous materials such as
35 petroleum products, solvents, paints, and cleaners. Quantities of hazardous materials that
36 exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code
37 would be subject to as RRP and HMI. Implementation of increased inventory
38 accountability and spill prevention controls associated with this RRP and HMI would
39 limit both the frequency and severity of potential releases of hazardous materials.
40 Limited quantities of hazardous materials used at Berths 302-306 that are below the
41 thresholds of Chapter 6.95 would not likely result in a substantial spillage into the
42 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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|------------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline* | 1,128,080 | NA | 1.4 |
| Alternative 3 (2027) | 2,583,000 | 128.9 % | 3.2 |

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 3.8-13: Alternative 3: Existing and Projected Cargo Throughput Volumes at Berths 302-306

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|-----------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| NEPA Project Baseline | 2,153,000 | NA | 2.7 |
| Alternative 3 (2027) | 2,583,000 | 19.9 % | 3.2 |

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 than 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.

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

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

9 Because projected terminal operations at Berths 302-306 would accommodate over a
10 2.3-fold increase and 1.2-fold increase in containerized cargo compared to the CEQA
11 baseline and NEPA baseline, respectively, the potential for increased truck
12 transportation-related accidents would also occur. Potential alternative-related increases
13 in truck trips could result in an increase in vehicular accidents, injuries, and fatalities.
14 Therefore, the potential impact of increased truck traffic on regional injury and fatality
15 rates are evaluated.

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

24 Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008
25 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the
26 total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total
27 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the
28 sources of data for this analysis, which primarily examined fatalities associated with
29 vehicle impact and trauma.

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

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

40 The Port is currently developing a Port-wide TMP for roadways in and around its
41 facilities. Present and future traffic improvement needs are being determined based on
42 existing and projected traffic volumes. The results will be a TMP providing ideas on
43 what to expect and how to prepare for future traffic volumes. Some of the transportation
44 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 3.8-14: Alternative 3: Existing and Projected Truck Trips at Berths 302-305

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| CEQA Baseline | 1,128,080 | 40.4 | 7.0 | 0.4 |
| Alternative 3 (2027) | 2,306,461 | 82.5 | 14.3 | 0.9 |
| Increase over CEQA baseline conditions | 1,178,381 | 42.2 | 7.3 | 0.5 |

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

1 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
 2 trips, the average distance of each trip, and the published accident, injury and fatality
 3 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

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| NEPA Baseline | 1,922,497 | 68.8 | 11.9 | 0.7 |
| Alternative 3 (2027) | 2,306,461 | 82.5 | 14.3 | 0.8 |
| Increase over NEPA baseline conditions | 383,964 | 13.7 | 2.4 | 0.1 |

Note: numbers are rounded

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

16 *Mitigation Measures*

17 No mitigation is required.

18 *Residual Impacts*

19 Impacts would be less than significant.

20 **Impact RISK-3b: Alternative 3 operations would not substantially** 21 **interfere with any existing emergency response plans or emergency** 22 **evacuation plans.**

23 Alternative 3 would optimize terminal operations by increasing the number of cranes and
 24 making the existing operations more efficient. The APL Terminal would operate as a
 25 container terminal similar to other terminal facilities in the Port area; therefore, proposed
 26 terminal operations would not interfere with any existing contingency plans, because the
 27 current activities are consistent with the contingency plans and the alternative Project
 28 would not add any additional activities that would be inconsistent with these plans. In
 29 addition, existing oil spill contingency and emergency response plans for the site would
 30 be revised to incorporate proposed facility and operational changes. Because existing
 31 management plans are commonly revised to incorporate terminal operation changes,
 32 conflicts with existing contingency and emergency response plans are not anticipated.

1 APL Terminal personnel, including dock laborers and equipment operators, would be
2 trained in emergency response and evacuation procedures. The site would be secured,
3 with access allowed only to authorized personnel. The LAFD and Port Police would be
4 able to provide adequate emergency response services to the site. Additionally,
5 Alternative 3 operations would also be subject to emergency response and evacuation
6 systems implemented by the LAFD, which would review all plans to ensure that adequate
7 access in the Project vicinity is maintained. All Alternative 3 contractors would be
8 required to adhere to plan requirements.

9 **CEQA Impact Determination**

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

16 *Mitigation Measures*

17 No mitigation is required.

18 *Residual Impacts*

19 Impacts would be less than significant.

20 **NEPA Impact Determination**

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

27 *Mitigation Measures*

28 No mitigation is required.

29 *Residual Impacts*

30 Impacts would be less than significant.

31 **Impact RISK-4b: Alternative 3 operations would comply with** 32 **applicable regulations and policies guiding development within the** 33 **Port.**

34 Alternative 3 operations would be subject to numerous regulations for operation of the
35 proposed facilities. LAHD has implemented various plans and programs to ensure
36 compliance with these regulations, which must be adhered to during terminal operation.
37 For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
38 HMSD, under the jurisdiction of the federal Department of Homeland Security
39 (33 CFR Part 126), which develops standards and industry guidance to promote the safety

1 of life and protection of property and the environment during marine transportation of
2 hazardous materials.

3 Among other requirements, Alternative 3 operations would conform to the USCG
4 requirement to provide a segregated cargo area for containerized hazardous materials.
5 Terminal cargo operations involving hazardous materials are also governed by the LAFD
6 in accordance with regulations of state and federal departments of transportation
7 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
8 highway system is regulated by Caltrans procedures and the Standardized Emergency
9 Management System prescribed under Section 8607 of the California Government Code.
10 These safety regulations strictly govern the storage of hazardous materials in containers
11 (i.e., types of materials and size of packages containing hazardous materials). In addition,
12 any facility constructed at the site, identified as either a hazardous cargo facility or a
13 vulnerable resource, would be required to conform to the RMP, which includes
14 packaging constraints and the provision of a separate storage area for hazardous cargo.

15 LAHD maintains compliance with these state and federal laws through a variety of
16 methods, including internal compliance reviews, preparation of regulatory plans, and
17 agency oversight. Most notably, the Port RMP implements development guidelines in an
18 effort to minimize the danger of accidents to vulnerable resources. This would be
19 achieved mainly through physical separation as well as through facility design features,
20 fire protection, and other risk management methods. There are two primary categories of
21 vulnerable resources: people and facilities. People are further divided into subgroups.
22 The first subgroup is comprised of residences, recreational users, and visitors. Within the
23 Port setting, residences and recreational users are considered vulnerable resources. The
24 second subgroup is comprised of workers in high density (i.e., generally more than
25 10 people per acre, per employer).

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

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

43 Alternative 3 plans and specifications will be reviewed by the LAFD for conformance to
44 the LAFC, as a standard practice. Buildings would be equipped with fire protection
45 equipment as required by the LAFC. Access to all buildings and adequacy of road and
46 fire lanes would be reviewed by the LAFD to ensure that adequate access and firefighting

1 features are provided. Plans would include an internal circulation system, code-required
2 features, and other firefighting design elements, as approved by the LAFD.

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

8 **CEQA Impact Determination**

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

15 *Mitigation Measures*

16 No mitigation is required.

17 *Residual Impacts*

18 Impacts would be less than significant.

19 **NEPA Impact Determination**

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

26 *Mitigation Measures*

27 No mitigation is required.

28 *Residual Impacts*

29 Impacts would be less than significant.

30 **Impact RISK-5b: Tsunami-induced flooding and seismic events 31 could result in fuel releases from ships or hazardous substances 32 releases from containers, which in turn could result in risks to 33 persons and/or the environment.**

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

1 striking the Port could cause significant ship movement and even a hull breach if the ship
2 is pushed against the wharf.

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

19 **CEQA Impact Determination**

20 Thus, the volume spilled in the event of a tsunami would likely be less than
21 10,000 gallons, which is considered minor. In light of such a low probability and
22 acceptable risk of a large tsunami or other seismic risk, impacts under CEQA associated
23 with Alternative 3 would be less than significant as they pertain to hazardous materials
24 spills under criterion RISK-5.

25 *Mitigation Measures*

26 No mitigation is required.

27 *Residual Impacts*

28 Impacts would be less than significant.

29 **NEPA Impact Determination**

30 Thus, the volume spilled in the event of a tsunami would likely be less than
31 10,000 gallons, which is considered minor. In light of such a low probability and
32 acceptable risk of a large tsunami or other seismic risk, impacts under NEPA associated
33 with Alternative 3 would be less than significant as they pertain to hazardous materials
34 spills under criterion RISK-5.

35 *Mitigation Measures*

36 No mitigation is required.

37 *Residual Impacts*

38 Impacts would be less than significant.

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

4 **Risk of Terrorist Actions Associated with Operations**

5 The proposed site is an existing container terminal and would not constitute a new
6 potential target for terrorists. The operation of additional cranes along the existing Berths
7 302-305 and minor upland improvements would support higher container throughput and
8 make operations more efficient. These improvements are not expected to make the
9 existing APL Terminal more attractive to terrorists.

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

15 **Consequences of Terrorist Attack**

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

26 **CEQA Impact Determination**

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

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 Impacts would be less than significant.

34 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **3.8.4.3.2.4 Alternative 4 – Reduced Project: No New Wharf**

6 Under Alternative 4, six cranes would be added to the existing terminal wharf at Berths
7 302-305, and the 41-acre fill area adjacent to the APL Terminal would be developed as
8 container yard backlands. EMS would relinquish the 30 acres of backlands under space
9 assignment. EMS would not add the nine acres of land behind Berth 301 or the two acres
10 at the main gate to its permit. Because no new wharf would be constructed at Berth 306,
11 the 41-acre backland would be operated using traditional methods and would not be
12 expected to transition to use of automated equipment. As the existing wharf would not be
13 extended to create Berth 306, no dredging would occur.

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

22 **3.8.4.3.2.4.1 Construction Impacts**

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

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

43 Implementation of construction standards, including BMPs, would minimize the potential
44 for an accidental release of petroleum products and/or hazardous materials and/or

1 explosion during construction activities at Berths 302-306. Because construction-related
2 spills are not uncommon, the probability of a spill occurring is classified as “frequent”
3 (more than once a year). However, because such spills are typically short-term and
4 localized, mainly due to the fact that the volume in any single vehicle is generally less
5 than 50 gallons and fuel trucks are limited to 10,000 gallons or less, the potential
6 consequence of such accidents is classified as “slight” resulting in a Risk Code of 4,
7 which is “acceptable.”

8 **CEQA Impact Determination**

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

14 *Mitigation Measures*

15 No mitigation is required.

16 *Residual Impacts*

17 Impacts would be less than significant.

18 **NEPA Impact Determination**

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

24 *Mitigation Measures*

25 No mitigation is required.

26 *Residual Impacts*

27 Impacts would be less than significant.

28 **Impact RISK-2a: Construction/demolition activities would not** 29 **substantially increase the probable frequency and severity of** 30 **consequences to people from exposure to health hazards.**

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

38 Construction activities would be conducted using BMPs and in accordance with the
39 Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6,
40 Article 4). Quantities of hazardous materials that exceed the thresholds provided in

1 Chapter 6.95 of the California Health and Safety Code would be subject to an RRP and
2 HMI. Implementation of increased inventory accountability and spill prevention controls
3 associated with this RRP and HMI, such as limiting the types of materials stored and size
4 of packages containing hazardous materials, would limit both the frequency and severity
5 of potential releases of hazardous materials, thus minimizing potential health hazards
6 and/or contamination of soil or water during construction activities. These measures
7 reduce the frequency and consequences of spills by requiring proper packaging for the
8 material being shipped, limits on package size, and thus potential spill size, as well as
9 proper response measures for the materials being handled. Impacts from contamination
10 of soil or water during construction activities would apply to not only construction
11 personnel, but to people and property occupying operational portions of the Project area,
12 as APL Terminal would be operating during construction activities.

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

25 **CEQA Impact Determination**

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

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 Impacts would be less than significant.

34 **NEPA Impact Determination**

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

39 *Mitigation Measures*

40 No mitigation is required.

41 *Residual Impacts*

42 Impacts would be less than significant.

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

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

11 **CEQA Impact Determination**

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

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

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 Impacts would be less than significant.

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

36 As described in Section 3.8.3.1, List of Regulations, Alternative 4 would be subject to
37 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

1 assumption represents an extremely conservative, worst-case scenario: one that is not
2 required under CEQA or NEPA.

3 **CEQA Impact Determination**

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

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 Impacts would be less than significant.

13 **NEPA Impact Determination**

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

19 *Mitigation Measures*

20 No mitigation is required.

21 *Residual Impacts*

22 Impacts would be less than significant.

23 **Impact RISK-6a: A potential terrorist attack could result in adverse 24 consequences to areas near the proposed site during the 25 construction period.**

26 **Risk of Terrorist Actions during Construction**

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

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

1 associated with terrorism during operations will also apply to the terminal during the
2 construction period.

3 **Consequences of Terrorist Attack during Construction**

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

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

20 **CEQA Impact Determination**

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

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 Impacts would be less than significant.

27 **NEPA Impact Determination**

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

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 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

1 materials would also be expected to increase proportionally. Based on the accident
 2 history at the Port of containers containing hazardous materials, which includes 39
 3 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related
 4 spills can be estimated as shown in Table 3.8-16.

Table 3.8-16: Alternative 4: Existing and Projected Cargo Throughput Volumes at Berths 302-305

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|-----------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline | 1,128,080 | NA | 1.5 |
| Alternative 4 (2027) | 2,783,000 | 146.7 % | 3.5 |

Note:
 TEU = 20-ft equivalent unit

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

19 *Mitigation Measures*
 20 No mitigation is required.

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

23 **NEPA Impact Determination**

24 The APL Terminal operations under Alternative 4 could handle approximately
 25 2,783,000 TEUs per year when optimized and functioning at maximum capacity (2027),
 26 as compared with the NEPA baseline (2027) of 2,153,000 TEUs.

27 Because projected terminal operations under Alternative 4 would accommodate
 28 approximately a 29.3 percent increase in containerized cargo compared to the NEPA
 29 baseline, the potential for an accidental release or explosion of hazardous materials would
 30 also be expected to increase proportionally. Based on the accident history at the Port of
 31 containers containing hazardous materials, which includes 39 incidents over a 4-year

1 period in the entire Port Complex, the frequency of Project-related spills can be estimated
 2 as shown in Table 3.8-17.

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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|-----------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| NEPA Project Baseline | 2,153,000 | NA | 2.7 |
| Alternative 4 (2027) | 2,783,000 | 29.3 % | 3.5 |

Note:
 TEU = 20-ft equivalent unit

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

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

25 Alternative 4 would include siting facilities that would potentially handle hazardous
 26 materials and increase other hazards to the public. The handling and storing of increased
 27 quantities of hazardous materials would increase the probability of a local accident
 28 involving a release, spill, fire or explosion, which is proportional to the size of the
 29 terminal and its throughput as was addressed in Impact Risk 1b.

1 Because projected terminal operations at Berths 302-305 would accommodate
2 approximately a 2.5-fold increase and a 1.3-fold increase in containerized cargo
3 compared to the CEQA baseline and NEPA baseline, respectively, the potential for
4 increased truck transportation-related accidents would also occur. Potential
5 alternative-related increases in truck trips could result in an increase in vehicular
6 accidents, injuries, and fatalities. Therefore, the potential impact of increased truck
7 traffic on regional injury and fatality rates have been evaluated.

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

17 Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008
18 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the
19 total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total
20 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the
21 sources of data for this analysis, which primarily examined fatalities associated with
22 vehicle impact and trauma.

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

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

36 **CEQA Impact Determination**

37 Potential alternative-related truck accident rates can be estimated based on national
38 average accident rates and the average number of miles per cargo truck trip. Based on
39 the air pollutant emission inventory of the Port, it was determined that the average truck
40 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
41 trips, the average distance of each trip, and the published accident, injury and fatality
42 rates, probabilities were estimated as shown in Table 3.8-18.

43

Table 3.8-18: Alternative 4: Existing and Projected Truck Trips at Berths 302-305

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| CEQA Baseline | 1,128,080 | 40.4 | 7.0 | 0.4 |
| Alternative 4 (2027) | 2,485,049 | 88.9 | 15.4 | 0.9 |
| Increase over CEQA baseline conditions | 1,356,969 | 48.5 | 8.4 | 0.5 |

Note: numbers are rounded

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

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

20 *Mitigation Measures*

21 No mitigation is required.

22 *Residual Impacts*

23 Impacts would be less than significant.

24 **NEPA Impact Determination**

25 Potential alternative-related truck accident rates can be estimated based on national
 26 average accident rates and the average number of miles per cargo truck trip. Based on
 27 the air pollutant emission inventory of the Port, it was determined that the average truck
 28 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
 29 trips, the average distance of each trip, and the published accident, injury and fatality
 30 rates, probabilities were estimated as shown in Table 3.8-19.

31

Table 3.8-19: Alternative 4: Existing and Projected Truck Trips at Berths 302-305

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|---------------------------|---------------------------------|--------------------------------------|--|
| NEPA Baseline | 1,922,497 | 68.8 | 11.9 | 0.7 |
| Alternative 4 (2027) | 2,485,049 | 88.9 | 15.4 | 0.9 |
| Increase over NEPA baseline conditions | 562,552 | 20.1 | 3.5 | 0.2 |

Note: numbers are rounded

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

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

20 *Mitigation Measures*

21 No mitigation is required.

22 *Residual Impacts*

23 Impacts would be less than significant.

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

27 Alternative 4 would optimize terminal operations by developing 41 acres of backland,
 28 additional cranes, and other landslide terminal components as described under the
 29 proposed Project in Chapter 2. The APL Terminal would continue to operate as a
 30 container terminal; therefore, proposed terminal operations would not interfere with any
 31 existing contingency plans, because the current activities are consistent with the
 32 contingency plans and this alternative would not add any additional activities that would
 33 be inconsistent with these plans. In addition, existing oil spill contingency and

1 emergency response plans for the site would be revised to incorporate proposed facility
2 and operational changes. Because existing management plans are commonly revised to
3 incorporate terminal operation changes, conflicts with existing contingency and
4 emergency response plans are not anticipated.

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

13 **CEQA Impact Determination**

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

20 *Mitigation Measures*

21 No mitigation is required.

22 *Residual Impacts*

23 Impacts would be less than significant.

24 **NEPA Impact Determination**

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

31 *Mitigation Measures*

32 No mitigation is required.

33 *Residual Impacts*

34 Impacts would be less than significant.

35 **Impact RISK-4b: Alternative 4 operations would comply with** 36 **applicable regulations and policies guiding development within the** 37 **Port.**

38 Alternative 4 operations would be subject to numerous regulations for operation of the
39 proposed facilities. LAHD has implemented various plans and programs to ensure
40 compliance with these regulations, which must be adhered to during terminal. For

1 example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
2 HMSD, under the jurisdiction of the federal Department of Homeland Security
3 (33 CFR Part 126), which develops standards and industry guidance to promote the safety
4 of life and protection of property and the environment during marine transportation of
5 hazardous materials.

6 Among other requirements, Alternative 4 operations would conform to the USCG
7 requirement to provide a segregated cargo area for containerized hazardous materials.
8 Terminal cargo operations involving hazardous materials are also governed by the LAFD
9 in accordance with regulations of state and federal departments of transportation
10 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
11 highway system is regulated by Caltrans procedures and the Standardized Emergency
12 Management System prescribed under Section 8607 of the California Government Code.
13 These safety regulations strictly govern the storage of hazardous materials in containers
14 (i.e., types of materials and size of packages containing hazardous materials). In addition,
15 any facility constructed at the site, identified as either a hazardous cargo facility or a
16 vulnerable resource, would be required to conform to the RMP, which includes
17 packaging constraints and the provision of a separate storage area for hazardous cargo.

18 LAHD maintains compliance with these state and federal laws through a variety of
19 methods, including internal compliance reviews, preparation of regulatory plans, and
20 agency oversight. Most notably, the Port RMP implements development guidelines in an
21 effort to minimize the danger of accidents to vulnerable resources. This would be
22 achieved mainly through physical separation as well as through facility design features,
23 fire protection, and other risk management methods. There are two primary categories of
24 vulnerable resources: people and facilities. People are further divided into subgroups.
25 The first subgroup is comprised of residences, recreational users, and visitors. Within the
26 Port setting, residences and recreational users are considered vulnerable resources. The
27 second subgroup is comprised of workers in high density (i.e., generally more than
28 10 people per acre, per employer).

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

36 High Value Facilities are non-hazardous facilities, in and near the Ports, which have very
37 high economic value. These facilities include both facility improvements and cargo
38 in-place, such as container storage areas. However, the determination of a vulnerable
39 resource is made by the Port and LAFD on a case-by-case basis. Although the Port
40 generally considers container terminals to be High Value Facilities, these types of
41 facilities have never been considered vulnerable resources in risk analyses completed by
42 the Port and LAFD (POLA, 2008). Because container terminals are not considered
43 vulnerable resources, and because Alternative 4 would not increase the exposure of the
44 residential or recreational users to increased risk (none are located next to the expansion
45 area), this alternative would not conflict with the RMP.

1 Alternative 4 plans and specifications will be reviewed by the LAFD for conformance to
2 the LAFC, as a standard practice. Buildings would be equipped with fire protection
3 equipment as required by the LAFC. Access to all buildings and adequacy of road and
4 fire lanes would be reviewed by the LAFD to ensure that adequate access and firefighting
5 features are provided. Plans would include an internal circulation system, code-required
6 features, and other firefighting design elements, as approved by the LAFD.

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

12 **CEQA Impact Determination**

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

19 *Mitigation Measures*

20 No mitigation is required.

21 *Residual Impacts*

22 Impacts would be less than significant.

23 **NEPA Impact Determination**

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

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 Impacts would be less than significant.

34 **Impact RISK-5b: Tsunami-induced flooding and seismic events** 35 **could result in fuel releases from ships or hazardous substances** 36 **releases from containers, which in turn could result in risks to** 37 **persons and/or the environment.**

38 As discussed in Section 3.5, Geology, and under RISK-5a for the proposed Project, there
39 is the potential for a large tsunami to affect the Port. Because the proposed site elevation
40 is approximately 15 ft above MLLW, localized tsunami-induced flooding would not

1 occur. A large tsunami would potentially lead to a fuel spill if a moored vessel is present.
2 Although crude oil tankers would not moor at Berths 302-305, each ship contains large
3 quantities of fuel oil. While in transit, the hazards posed to tankers are insignificant, and
4 in most cases, imperceptible. However, while docked, a tsunami striking the Port could
5 cause significant ship movement and even a hull breach if the ship is pushed against the
6 wharf.

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

23 **CEQA Impact Determination**

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

31 *Mitigation Measures*

32 No mitigation is required.

33 *Residual Impacts*

34 Impacts would be less than significant.

35 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

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

8 **Risk of Terrorist Actions Associated with Operations**

9 The proposed site is an existing container terminal and would not constitute a new
10 potential target for terrorists. The operation of additional cranes along the existing Berths
11 302-305, use of additional backlands for container storage, and other minor upland
12 improvements would support higher container throughput and make operations more
13 efficient. These improvements are not expected to make the existing APL Terminal more
14 attractive to terrorists.

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

20 **Consequences of Terrorist Attack**

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

31 **CEQA Impact Determination**

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

36 *Mitigation Measures*

37 No mitigation is required.

38 *Residual Impacts*

39 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

1 materials and the size of packages containing hazardous materials) and the separation of
2 containers holding hazardous materials, would limit the potential adverse impacts of
3 contamination to a relatively small area. In addition, standard BMPs would be used
4 during construction and demolition activities to minimize runoff of contaminants, in
5 compliance with the State General Permit for Storm Water Discharges Associated with
6 Construction Activity (Water Quality Order 99-08-DWQ) and Project-specific SWPPP
7 (see Section 3.14, Water Quality, Sediments, and Oceanography, for more information).

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

17 **CEQA Impact Determination**

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

22 *Mitigation Measures*

23 No mitigation is required.

24 *Residual Impacts*

25 Impacts would be less than significant.

26 **NEPA Impact Determination**

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

31 *Mitigation Measures*

32 No mitigation is required.

33 *Residual Impacts*

34 Impacts would be less than significant.

35 **Impact RISK-2a: Construction/demolition activities would not** 36 **substantially increase the probable frequency and severity of** 37 **consequences to people from exposure to health hazards.**

38 Risk of upset impacts during construction would be slightly reduced compared to those
39 described for the proposed Project. Under Alternative 5, the potential for construction
40 equipment to spill oil, gas, or fluids during normal usage or during refueling would be

1 reduced. Therefore, relative to the proposed Project, this alternative would reduce the
2 potential for an accidental release of hazardous materials and/or contamination of soil or
3 water and would reduce the potential for an accidental release from a fire or explosion
4 during construction activities.

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

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

32 **CEQA Impact Determination**

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

37 *Mitigation Measures*

38 No mitigation is required.

39 *Residual Impacts*

40 Impacts would be less than significant.

41 **NEPA Impact Determination**

42 Therefore, under NEPA, construction activities under Alternative 5 would not
43 substantially increase the probable frequency and severity of consequences to people

1 from exposure to health hazards. Based on risk criterion RISK-2, impacts under NEPA
2 from Alternative 5 would be less than significant.

3 *Mitigation Measures*

4 No mitigation is required.

5 *Residual Impacts*

6 Impacts would be less than significant.

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

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

17 **CEQA Impact Determination**

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

24 *Mitigation Measures*

25 No mitigation is required.

26 *Residual Impacts*

27 Impacts would be less than significant.

28 **NEPA Impact Determination**

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

35 *Mitigation Measures*

36 No mitigation is required.

37 *Residual Impacts*

38 Impacts would be less than significant.

1 **Impact RISK-4a: Alternative 5 construction/demolition would comply**
2 **with applicable regulations and policies guiding development within**
3 **the Port.**

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

6 **CEQA Impact Determination**

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

12 *Mitigation Measures*

13 No mitigation is required.

14 *Residual Impacts*

15 Impacts would be less than significant.

16 **NEPA Impact Determination**

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

22 *Mitigation Measures*

23 No mitigation is required.

24 *Residual Impacts*

25 Impacts would be less than significant.

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

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

37 Impacts due to major or great earthquakes and seismically induced tsunamis and seiches
38 are typical for the entire California coastline and would not be increased by construction
39 of Alternative 5. Because the proposed site elevation is approximately 15 ft above

1 MLLW, localized tsunami-induced flooding would not occur. However such an event
2 could result in damage to property or injury related to in-water construction.

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

8 **CEQA Impact Determination**

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

14 *Mitigation Measures*

15 No mitigation is required.

16 *Residual Impacts*

17 Impacts would be less than significant.

18 **NEPA Impact Determination**

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

24 *Mitigation Measures*

25 No mitigation is required.

26 *Residual Impacts*

27 Impacts would be less than significant.

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

31 **Risk of Terrorist Actions during Construction**

32 The proposed site is an existing container terminal with substantial throughput, as
33 described in Chapter 2, and would not constitute a new potential target for terrorists. The
34 construction of a new wharf and cranes at Berth 306, additional cranes along the existing
35 Berths 302-305, development of new backlands, and minor upland improvements would
36 support higher container throughput and make operations more efficient. These
37 improvements are not expected to make the existing APL Terminal more attractive to
38 terrorists.

1 The probability of a terrorist attack on Alternative 5 facilities is not likely to appreciably
2 change during construction compared to baseline conditions. It is possible that the
3 increase in construction vessel traffic in the vicinity of the APL Terminal could lead to a
4 greater opportunity of a successful terrorist attack; however, existing Port security
5 measures would counter this potential increase in unauthorized access to the terminal.
6 The APL Terminal would be operational during the construction period; therefore, risks
7 associated with terrorism during operations will also apply to the terminal during the
8 construction period.

9 **Consequences of Terrorist Attack during Construction**

10 During construction, a terrorist action could block key road access points and waterways
11 and result in economic disruption. A terrorist attack would be catastrophic, resulting in
12 environmental damage that could include fuel and/or commodity spills into the marine
13 environment, with associated degradation of water quality and damage to marine
14 biological resources, and economic impacts. Container ships typically carry up to
15 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts
16 would likely be limited to the area surrounding the point of attack and would be
17 responded to by emergency response providers. A potential fire associated with a
18 terrorist attack could result in short-term impacts to local air quality.

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

26 **CEQA Impact Determination**

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

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 Impacts would be less than significant.

33 **NEPA Impact Determination**

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

36 *Mitigation Measures*

37 No mitigation is required.

38 *Residual Impacts*

39 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

1 history at the Port of containers containing hazardous materials, which includes 39
 2 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related
 3 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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|------------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline* | 1,128,080 | NA | 1.5 |
| Alternative 5 (2027) | 3,206,000 | 184.2 % | 4.0 |

Note:

*CEQA Baseline – July 2008-June 2009

TEU = 20-ft equivalent unit

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

23 APL Terminal operations under Alternative 5 could handle approximately
 24 3,206,000 TEUs per year when optimized and functioning at maximum capacity (2027),
 25 as compared to the NEPA baseline (2027) of 2,153,000 TEUs.

26 Because projected terminal operations under Alternative 5 would accommodate
 27 approximately a 1.5-fold increase in containerized cargo compared to the NEPA baseline,
 28 the potential for an accidental release or explosion of hazardous materials would also be
 29 expected to increase proportionally. Based on the accident history at the Port of
 30 containers containing hazardous materials, which includes 39 incidents over a 4-year

1 period in the entire Port Complex, the frequency of Project-related spills can be estimated
 2 as shown in Table 3.8-21.

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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|-----------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| NEPA Project Baseline | 2,153,000 | NA | 2.7 |
| Alternative 5 (2027) | 3,206,000 | 48.9 % | 4.0 |

Note:
 TEU = 20-ft equivalent unit

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **Impact RISK-2b: Alternative 5 operations would not substantially** 23 **increase the probable frequency and severity of consequences to** 24 **people or property from exposure to health hazards.**

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

30 According to an FMCSA detailed analysis (FMCSA, 2001), the estimated non-hazardous
 31 materials truck accident rate is more than twice the hazardous materials truck accident
 32 rate. The non-hazardous materials truck accident rate was estimated to be 0.73 accidents

1 per million vehicle miles and the average hazardous materials truck accident rate was
2 estimated to be 0.32 accidents per million vehicle miles. The hazardous materials truck
3 accident rate is not directly applicable to the alternative Project container trucks since
4 they are generally limited to bulk hazardous materials carriers. Therefore, for this
5 analysis, the higher accident rate associated with non-hazardous materials trucks was
6 used.

7 Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008
8 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the
9 total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total
10 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the
11 sources of data for this analysis, which primarily examined fatalities associated with
12 vehicle impact and trauma.

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

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

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

33 **CEQA Impact Determination**

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

40 Potential alternative-related truck accident rates can be estimated based on national
41 average accident rates and the average number of miles per cargo truck trip. Based on
42 the air pollutant emission inventory of the Port, it was determined that the average truck
43 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck

1 trips, the average distance of each trip, and the published accident, injury and fatality
 2 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

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| CEQA Baseline | 1,128,080 | 40.4 | 7.0 | 0.4 |
| Alternative 5 (2027) | 3,003,157 | 107.4 | 18.7 | 1.1 |
| Increase over CEQA Baseline Conditions | 1,875,077 | 67.0 | 11.7 | 0.7 |

Note: numbers are rounded

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

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

26 Potential alternative-related truck accident rates can be estimated based on national
 27 average accident rates and the average number of miles per cargo truck trip. Based on
 28 the air pollutant emission inventory of the Port, it was determined that the average truck
 29 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
 30 trips, the average distance of each trip, and the published accident, injury and fatality
 31 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

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| NEPA Baseline | 1,922,497 | 68.8 | 11.9 | 0.7 |
| Alternative 5 (2027) | 3,003,157 | 107.4 | 18.7 | 1.1 |
| Increase over NEPA baseline conditions | 1,080,660 | 38.7 | 6.7 | 0.4 |

Note: numbers are rounded

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

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 Impacts would be less than significant.

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

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

32 Berth 302-306 facilities personnel, including dock laborers and equipment operators,
 33 would be trained in emergency response and evacuation procedures. The site would be

1 secured, with access allowed only to authorized personnel. The LAFD and Port Police
2 would be able to provide adequate emergency response services to the site. Additionally,
3 Alternative 5 operations would also be subject to emergency response and evacuation
4 systems implemented by the LAFD, which would review all plans to ensure that adequate
5 access in the Project vicinity is maintained. All Alternative 5 contractors would be
6 required to adhere to plan requirements.

7 **CEQA Impact Determination**

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

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 Impacts would be less than significant.

17 **NEPA Impact Determination**

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

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 Impacts would be less than significant.

27 **Impact RISK-4b: Alternative 5 operations would comply with** 28 **applicable regulations and policies guiding development within the** 29 **Port.**

30 Alternative 5 operations would be subject to numerous regulations for operation of the
31 proposed facilities. LAHD has implemented various plans and programs to ensure
32 compliance with these regulations, which must be adhered to during terminal operation.
33 For example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
34 HMSD, under the jurisdiction of the federal Department of Homeland Security
35 (33 CFR Part 126), which develops standards and industry guidance to promote the safety
36 of life and protection of property and the environment during marine transportation of
37 hazardous materials.

38 Among other requirements, Alternative 5 operations would conform to the USCG
39 requirement to provide a segregated cargo area for containerized hazardous materials.
40 Terminal cargo operations involving hazardous materials are also governed by the LAFD

1 in accordance with regulations of state and federal departments of transportation
2 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
3 highway system is regulated by Caltrans procedures and the Standardized Emergency
4 Management System prescribed under Section 8607 of the California Government Code.
5 These safety regulations strictly govern the storage of hazardous materials in containers
6 (i.e., types of materials and size of packages containing hazardous materials). In addition,
7 any facility constructed at the site, identified as either a hazardous cargo facility or a
8 vulnerable resource, would be required to conform to the RMP, which includes
9 packaging constraints and the provision of a separate storage area for hazardous cargo.

10 LAHD maintains compliance with these state and federal laws through a variety of
11 methods, including internal compliance reviews, preparation of regulatory plans, and
12 agency oversight. Most notably, the Port RMP implements development guidelines in an
13 effort to minimize the danger of accidents to vulnerable resources. This would be
14 achieved mainly through physical separation as well as through facility design features,
15 fire protection, and other risk management methods. There are two primary categories of
16 vulnerable resources: people and facilities. People are further divided into subgroups.
17 The first subgroup is comprised of residences, recreational users, and visitors. Within the
18 Port setting, residences and recreational users are considered vulnerable resources. The
19 second subgroup is comprised of workers in high density (i.e., generally more than
20 10 people per acre, per employer).

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

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

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

44 Operation of Alternative 5 would be required to comply with all existing hazardous waste
45 laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and
46 Title 26. Alternative 5 operations would comply with these laws and regulations, which

1 would ensure that potential hazardous materials handling would occur in an acceptable
2 manner.

3 **CEQA Impact Determination**

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

10 *Mitigation Measures*

11 No mitigation is required.

12 *Residual Impacts*

13 Impacts would be less than significant.

14 **NEPA Impact Determination**

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **Impact RISK-5b: Tsunami-induced flooding and seismic events** 26 **could result in fuel releases from ships or hazardous substances** 27 **releases from containers, which in turn could result in risks to** 28 **persons and/or the environment.**

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

37 Because a major tsunami is not expected during the life of Alternative 5, but could occur
38 (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional
39 information on the probability of a major tsunami), the probability of a major tsunami
40 occurring is classified as “improbable”. The consequence of such an event is classified

1 as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of
2 spilled fuel is also expected to be relatively low because all fuel storage containers at the
3 Project site would be quite small in comparison to the significance criteria volumes.
4 Given that single-hulled vessels would not be used, there is a minimal chance of a
5 substantive fuel spill. While there will be fuel-containing equipment present during
6 operation, most equipment is equipped with watertight tanks, with the most likely
7 scenario being the infiltration of water into the tank and fuel combustion chambers and
8 very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be
9 less than 10,000 gallons, which is considered “slight.” In light of such a low probability
10 and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would
11 be less than significant as they pertain to hazardous materials spills under criterion
12 RISK-5.

13 **CEQA Impact Determination**

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **NEPA Impact Determination**

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

33 *Mitigation Measures*

34 No mitigation is required.

35 *Residual Impacts*

36 Impacts would be less than significant.

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

4 **Risk of Terrorist Actions Associated with Operations**

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

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

16 **Consequences of Terrorist Attack**

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

27 **CEQA Impact Determination**

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

32 *Mitigation Measures*

33 No mitigation is required.

34 *Residual Impacts*

35 Impacts would be less than significant.

36 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **3.8.4.3.2.6 Alternative 6 – Proposed Project with Expanded On-Dock Railyard**

6 Alternative 6 would be the same as the proposed Project; however, the existing on-dock
7 railyard on the terminal would be redeveloped and expanded. Under this alternative,
8 approximately 10 acres of backlands would be removed from container storage for the
9 railyard expansion. Alternative 6 would improve the existing terminal, develop the
10 existing 41-acre fill area as backlands, add 1,250 ft of new wharf creating Berth 306, and
11 dredge the Pier 300 Channel along Berth 306. Under this alternative, 12 new cranes
12 would be added to the wharves along Berths 302-306, for a total of 24 cranes. As with
13 the proposed Project, the 41-acre backlands and Berth 306 under Alternative 6 could
14 utilize traditional container operations, electric automated operations, or a combination of
15 the two over time. Dredging of the Pier 300 Channel along Berth 306 would occur
16 (removal of approximately 20,000 cy of material), with the dredged material beneficially
17 reused and/or disposed of at an approved disposal site (such as the CDF at Berths 243-
18 245 and/or Cabrillo shallow water habitat) or, if needed, disposed of at an ocean disposal
19 site (i.e., LA-2). Total terminal acreage (347) would be the same as the proposed Project.

20 Based on the throughput projections, TEU throughput would be the same as the proposed
21 Project, with an expected throughput of approximately 3.2 million TEUs by 2027. This
22 would translate into 390 annual ship calls at Berths 302-306. In addition, Alternative 6
23 would result in up to 10,830 peak daily truck trips (2,862,760 annual), and up to
24 2,953 annual rail trip movements. Configuration of all other landside terminal
25 components would be identical to the existing terminal.

26 **3.8.4.3.2.6.1 Construction Impacts**

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

31 Construction activities from Alternative 6 would be identical to those under the proposed
32 Project, with the exception that this alternative would redevelop and expand the existing
33 on-dock railyard by approximately 10 acres. Construction equipment could result in
34 accidental spills of oil, gas, or fluids during normal usage or during refueling, resulting in
35 potential health and safety impacts to not only construction personnel, but to people and
36 property occupying operational portions of the Project area. BMPs and Los Angeles
37 Municipal Code regulations (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article
38 4) would govern construction activities. Federal and state regulations that govern the
39 storage of hazardous materials in containers (i.e., the types of materials and the size of
40 packages containing hazardous materials) and the separation of containers holding
41 hazardous materials, would limit the potential adverse impacts of contamination to a
42 relatively small area. In addition, standard BMPs would be used during construction and
43 demolition activities to minimize runoff of contaminants, in compliance with the State
44 General Permit for Storm Water Discharges Associated with Construction Activity

1 (Water Quality Order 99-08-DWQ) and Project-specific SWPPP (see Section 3.14, Water
2 Quality, Sediments, and Oceanography, for more information).

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

12 **CEQA Impact Determination**

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

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

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 Impacts would be less than significant.

32 **Impact RISK-2a: Construction/demolition activities would not** 33 **substantially increase the probable frequency and severity of** 34 **consequences to people from exposure to health hazards.**

35 Risk of upset impacts during construction would be basically the same as those described
36 for the proposed Project. Construction activities would be conducted using BMPs and in
37 accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5;
38 Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds
39 provided in Chapter 6.95 of the California Health and Safety Code would be subject to an
40 RRP and HMI. Implementation of increased inventory accountability and spill prevention

1 controls associated with this RRP and HMI, such as limiting the types of materials stored
2 and size of packages containing hazardous materials, would limit both the frequency and
3 severity of potential releases of hazardous materials, thus minimizing potential health
4 hazards and/or contamination of soil or water during construction activities. These
5 measures reduce the frequency and consequences of spills by requiring proper packaging
6 for the material being shipped, limits on package size, and thus potential spill size, as well
7 as proper response measures for the materials being handled. Impacts from contamination
8 of soil or water during construction activities would apply to not only construction
9 personnel, but to people and property occupying operational portions of the Project area,
10 as APL Terminal would be operating during construction activities.

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

23 **CEQA Impact Determination**

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

28 *Mitigation Measures*

29 No mitigation is required.

30 *Residual Impacts*

31 Impacts would be less than significant.

32 **NEPA Impact Determination**

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

37 *Mitigation Measures*

38 No mitigation is required.

39 *Residual Impacts*

40 Impacts would be less than significant.

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

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

11 **CEQA Impact Determination**

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **NEPA Impact Determination**

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

29 *Mitigation Measures*

30 No mitigation is required.

31 *Residual Impacts*

32 Impacts would be less than significant.

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

36 As described in Section 3.8.3.1, List of Regulations, Alternative 6 would be subject to
37 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

1 assumption represents an extremely conservative, worst-case scenario: one that is not
2 required under CEQA or NEPA.

3 **CEQA Impact Determination**

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

9 *Mitigation Measures*

10 No mitigation is required.

11 *Residual Impacts*

12 Impacts would be less than significant.

13 **NEPA Impact Determination**

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

19 *Mitigation Measures*

20 No mitigation is required.

21 *Residual Impacts*

22 Impacts would be less than significant.

23 **Impact RISK-6a: A potential terrorist attack could result in adverse** 24 **consequences to areas near the proposed site during the** 25 **construction period.**

26 **Risk of Terrorist Actions during Construction**

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

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

1 associated with terrorism during operations will also apply to the terminal during the
2 construction period.

3 **Consequences of Terrorist Attack during Construction**

4 During construction, a terrorist action could block key road access points and waterways
5 and result in economic disruption. A terrorist attack would be catastrophic, resulting in
6 environmental damage that could include fuel and/or commodity spills into the marine
7 environment, with associated degradation of water quality and damage to marine
8 biological resources, and economic impacts. Container ships typically carry up to
9 5,000 barrels of fuel oil but would not be full when arriving at the Port. These impacts
10 would likely be limited to the area surrounding the point of attack and would be
11 responded to by emergency response providers. A potential fire associated with a
12 terrorist attack could result in short-term impacts to local air quality.

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

20 **CEQA Impact Determination**

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

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 Impacts would be less than significant.

27 **NEPA Impact Determination**

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

30 *Mitigation Measures*

31 No mitigation is required.

32 *Residual Impacts*

33 Impacts would be less than significant.

3.8.4.3.2.6.2 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

1 history at the Port of containers containing hazardous materials, which includes 39
 2 incidents over a 4-year period in the entire Port Complex, the frequency of Project-related
 3 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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|------------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14.7 |
| CEQA Project Baseline* | 1,128,080 | NA | 1.5 |
| Alternative 6 (2027) | 3,206,000 | 184.2 % | 4.0 |

Note:

*CEQA Baseline – July 2008-June 2009

TEU = 20-ft equivalent unit

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

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

NEPA Impact Determination

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

1 Complex, the frequency of Project-related spills can be estimated as shown in Table 3.8-
2 25.

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

| Operations | Overall Throughput (TEUs) | Increase in TEUs (%) | Potential Spills (per year) |
|-----------------------|---------------------------|----------------------|-----------------------------|
| Port-Wide (2009) | 11,816,591 | NA | 14,7 |
| NEPA Project Baseline | 2,153,000 | NA | 2.7 |
| Alternative 6 (2027) | 3,206,000 | 48.9 % | 4.0 |

Note:
TEU = 20-ft equivalent unit

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

18 *Mitigation Measures*

19 No mitigation is required.

20 *Residual Impacts*

21 Impacts would be less than significant.

22 **Impact RISK-2b: Alternative 6 operations would not substantially** 23 **increase the probable frequency and severity of consequences to** 24 **people or property from exposure to health hazards.**

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

30 Because projected terminal operations at Berths 302-306 would accommodate
31 approximately a 2.8-fold increase in containerized cargo compared to the CEQA baseline,

1 the potential for increased truck transportation-related accidents would also occur.
2 Potential alternative-related increases in truck trips could result in an increase in
3 vehicular accidents, injuries, and fatalities. Therefore, the potential impact of increased
4 truck traffic on regional injury and fatality rates is evaluated.

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

14 Based on the NHTSA (DOT, 2008), of the estimated 380,000 truck crashes in 2008
15 (causing fatalities, injuries, or property damage), an estimated 1.07 percent (4,066 of the
16 total 380,000 truck crashes) produced fatalities and 17.4 percent (66,000 of the total
17 380,000 truck crashes) produced injuries. The FARS and the TIFA survey were the
18 sources of data for this analysis, which primarily examined fatalities associated with
19 vehicle impact and trauma.

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

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

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

40 **CEQA Impact Determination**

41 Potential alternative-related truck accident rates can be estimated based on national
42 average accident rates and the average number of miles per cargo truck trip. Based on
43 the air pollutant emission inventory of the Port, it was determined that the average truck
44 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck

1 trips, the average distance of each trip, and the published accident, injury and fatality
2 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

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| CEQA Baseline | 1,128,080 | 40.4 | 7.0 | 0.4 |
| Alternative 6 (2027) | 2,862,762 | 102.4 | 17.8 | 1.1 |
| Increase over CEQA baseline conditions | 1,734,682 | 62.0 | 10.8 | 0.7 |

Note: numbers are rounded

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

15 *Mitigation Measures*

16 No mitigation is required.

17 *Residual Impacts*

18 Impacts would be less than significant.

19 **NEPA Impact Determination**

20 Potential alternative-related truck accident rates can be estimated based on national
21 average accident rates and the average number of miles per cargo truck trip. Based on
22 the air pollutant emission inventory of the Port, it was determined that the average truck
23 trip was approximately 49 miles (Starcrest, 2003). Given the annual number of truck
24 trips, the average distance of each trip, and the published accident, injury and fatality
25 rates, the following probabilities were estimated as shown in Table 3.8-27.

26

Table 3.8-27: Alternative 6: Existing and Projected Truck Trips at Berths 302-306

| Operations | Annual Truck Trips | Accident Rate (per year) | Injury Probability (per year) | Fatality Probability (per year) |
|--|--------------------|--------------------------|-------------------------------|---------------------------------|
| NEPA Baseline | 1,922,497 | 68.8 | 11.9 | 0.7 |
| Alternative 6 (2027) | 2,862,762 | 102.4 | 17.8 | 1.1 |
| Increase over NEPA baseline conditions | 940,265 | 33.6 | 5.8 | 0.4 |

Note: numbers are rounded

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

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 Impacts would be less than significant.

17 **Impact RISK-3b: Alternative 6 operations would not substantially** 18 **interfere with any existing emergency response plans or emergency** 19 **evacuation plans.**

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

32 Berth 302-306 facilities personnel, including dock laborers and equipment operators,
 33 would be trained in emergency response and evacuation procedures. The site would be

1 secured, with access allowed only to authorized personnel. The LAFD and Port Police
2 would be able to provide adequate emergency response services to the site. Additionally,
3 Alternative 6 operations would also be subject to emergency response and evacuation
4 systems implemented by the LAFD, which would review all plans to ensure that adequate
5 access in the Project vicinity is maintained. All Alternative 6 contractors would be
6 required to adhere to plan requirements.

7 **CEQA Impact Determination**

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

13 *Mitigation Measures*

14 No mitigation is required.

15 *Residual Impacts*

16 Impacts would be less than significant.

17 **NEPA Impact Determination**

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

23 *Mitigation Measures*

24 No mitigation is required.

25 *Residual Impacts*

26 Impacts would be less than significant.

27 **Impact RISK-4b: Alternative 6 operations would comply with** 28 **applicable regulations and policies guiding development within the** 29 **Port.**

30 Alternative 6 operations would be subject to numerous regulations for operation of the
31 proposed facilities. LAHD has implemented various plans and programs to ensure
32 compliance with these regulations, which must be adhered to during terminal. For
33 example, as discussed in Section 3.8.3.1, List of Regulations, the USCG maintains a
34 HMSD, under the jurisdiction of the federal Department of Homeland Security
35 (33 CFR Part 126), which develops standards and industry guidance to promote the safety
36 of life and protection of property and the environment during marine transportation of
37 hazardous materials.

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

1 in accordance with regulations of state and federal departments of transportation
2 (49 CFR Part 176). The transport of hazardous materials in containers on the street and
3 highway system is regulated by Caltrans procedures and the Standardized Emergency
4 Management System prescribed under Section 8607 of the California Government Code.
5 These safety regulations strictly govern the storage of hazardous materials in containers
6 (i.e., types of materials and size of packages containing hazardous materials). In addition,
7 any facility constructed at the site, identified as either a hazardous cargo facility or a
8 vulnerable resource, would be required to conform to the RMP, which includes
9 packaging constraints and the provision of a separate storage area for hazardous cargo.

10 LAHD maintains compliance with these state and federal laws through a variety of
11 methods, including internal compliance reviews, preparation of regulatory plans, and
12 agency oversight. Most notably, the Port RMP implements development guidelines in an
13 effort to minimize the danger of accidents to vulnerable resources. This would be
14 achieved mainly through physical separation as well as through facility design features,
15 fire protection, and other risk management methods. There are two primary categories of
16 vulnerable resources: people and facilities. People are further divided into subgroups.
17 The first subgroup is comprised of residences, recreational users, and visitors. Within the
18 Port setting, residences and recreational users are considered vulnerable resources. The
19 second subgroup is comprised of workers in high density (i.e., generally more than
20 10 people per acre, per employer).

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

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

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

44 Operation of Alternative 6 would be required to comply with all existing hazardous waste
45 laws and regulations, including the federal RCRA and CERCLA, and CCR Title 22 and
46 Title 26. Alternative 6 operations would comply with these laws and regulations, which

1 would ensure that potential hazardous materials handling would occur in an acceptable
2 manner.

3 **CEQA Impact Determination**

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

10 *Mitigation Measures*

11 No mitigation is required.

12 *Residual Impacts*

13 Impacts would be less than significant.

14 **NEPA Impact Determination**

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **Impact RISK-5b: Tsunami-induced flooding and seismic events** 26 **could result in fuel releases from ships or hazardous substances** 27 **releases from containers, which in turn could result in risks to** 28 **persons and/or the environment.**

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

37 Because a major tsunami is not expected during the life of Alternative 6, but could occur
38 (see Section 3.5, Geology, and RISK-5a under the proposed Project for additional
39 information on the probability of a major tsunami), the probability of a major tsunami
40 occurring is classified as “improbable”. The consequence of such an event is classified

1 as “moderate,” resulting in a Risk Code of 4, which is “acceptable.” The volume of
2 spilled fuel is also expected to be relatively low because all fuel storage containers at the
3 Project site would be quite small in comparison to the significance criteria volumes.
4 Given that single-hulled vessels would not be used, there is a minimal chance of a
5 substantive fuel spill. While there will be fuel-containing equipment present during
6 operation, most equipment is equipped with watertight tanks, with the most likely
7 scenario being the infiltration of water into the tank and fuel combustion chambers and
8 very little fuel spilled. Thus, the volume spilled in the event of a tsunami would likely be
9 less than 10,000 gallons, which is considered “slight.” In light of such a low probability
10 and acceptable risk of a large tsunami or other seismic risk, impacts under CEQA would
11 be less than significant as they pertain to hazardous materials spills under criterion
12 RISK-5.

13 **CEQA Impact Determination**

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

21 *Mitigation Measures*

22 No mitigation is required.

23 *Residual Impacts*

24 Impacts would be less than significant.

25 **NEPA Impact Determination**

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

33 *Mitigation Measures*

34 No mitigation is required.

35 *Residual Impacts*

36 Impacts would be less than significant.

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

4 **Risk of Terrorist Actions Associated with Operations**

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

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

16 **Consequences of Terrorist Attack**

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

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

27 **CEQA Impact Determination**

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

32 *Mitigation Measures*

33 No mitigation is required.

34 *Residual Impacts*

35 Impacts would be less than significant.

36 **NEPA Impact Determination**

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

1 *Mitigation Measures*

2 No mitigation is required.

3 *Residual Impacts*

4 Impacts would be less than significant.

5 **3.8.4.4 Summary of Impact Determinations**

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

12 For each impact threshold, the table describes the impact, notes the CEQA and NEPA
13 impact determinations, describes any applicable mitigation measures, and notes the
14 residual impacts (i.e., the impact remaining after mitigation). All impacts, whether
15 significant or not, are included in this table.

16

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|------------------|---|-----------------------------|-------------------------|-----------------------------|
| Proposed Project | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed Project site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-1b: Operation of the proposed Project 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation | |
|--|---|--|---------------------------|-----------------------------|----------------------|
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant | |
| | | NEPA: Less than significant | | NEPA: Less than significant | |
| | RISK-3b: Proposed Project operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant | |
| | | NEPA: Less than significant | | NEPA: Less than significant | |
| | RISK-4b: Operation of the proposed Project would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant | |
| | | NEPA: Less than significant | | NEPA: Less than significant | |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant | |
| | | NEPA: Less than significant | | NEPA: Less than significant | |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed Project site during the operations period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant | |
| | | NEPA: Less than significant | | NEPA: Less than significant | |
| | Alternative 1 – No Project | 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. | CEQA: No impact | Mitigation not required | CEQA: No impact |
| | | | NEPA: Not Applicable | Mitigation not applicable | NEPA: Not Applicable |
| RISK-2a: Construction/demolition activities would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. | | CEQA: No impact | Mitigation not required | CEQA: No impact | |
| | | NEPA: Not Applicable | Mitigation not applicable | NEPA: Not Applicable | |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|-------------|---|-----------------------------|---------------------------|-----------------------------|
| | 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. | CEQA: No impact | Mitigation not required | CEQA: No impact |
| | | NEPA: Not Applicable | Mitigation not applicable | NEPA: Not Applicable |
| | RISK-4a: Alternative 1 construction/demolition would comply with applicable regulations and policies guiding development within the Port. | CEQA: No impact | Mitigation not required | CEQA: No impact |
| | | NEPA: Not Applicable | Mitigation not applicable | NEPA: Not Applicable |
| | 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: No impact | Mitigation not required | CEQA: No impact |
| | | NEPA: Not Applicable | Mitigation not applicable | NEPA: Not Applicable |
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: No impact | Mitigation not required | CEQA: No impact |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |
| | RISK-3b: Alternative 1 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|--------------------------------------|--|-----------------------------|---------------------------|-----------------------------|
| | RISK-4b: Alternative 1 operations would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Not applicable | Mitigation not applicable | NEPA: Not applicable |
| Alternative 2 – No Federal Action | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| | 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| | RISK-4a: Alternative 2 construction/demolition would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|-------------|---|-----------------------------|-------------------------|-----------------------------|
| | 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| | RISK-3b: Alternative 2 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| | RISK-4b: Alternative 2 operations would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|---|---|-----------------------------|-------------------------|-----------------------------|
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: No impact | | NEPA: No impact |
| Alternative 3 – Reduced Project: Four New Cranes | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4a: Alternative 3 construction/demolition would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|-------------|---|-----------------------------|-------------------------|-----------------------------|
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-3b: Alternative 3 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4b: Alternative 3 would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|--|---|-----------------------------|-------------------------|-----------------------------|
| Alternative 4 – Reduced Project: No New Wharf | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4a: Alternative 4 construction/demolition would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|-------------|---|-----------------------------|-------------------------|-----------------------------|
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-3b: Alternative 4 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4b: Alternative 4 operations would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the operations period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|---|---|-----------------------------|-------------------------|-----------------------------|
| Alternative 5 – Reduced Project: No Space Assignment | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|-------------|---|-----------------------------|-------------------------|-----------------------------|
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-3b: Alternative 5 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4b: Alternative 5 operations would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|--|---|-----------------------------|-------------------------|-----------------------------|
| Alternative 6 – Proposed Project with Expanded On-Dock Railyard | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4a: Alternative 6 construction/demolition would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: 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 | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6a: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

Table 3.8-28: Summary Matrix of Potential Impacts and Mitigation Measures for Hazards and Hazardous Materials Associated with the Proposed Project and Alternatives

| Alternative | Environmental Impacts | Impact Determination | Mitigation Measures | Impacts after Mitigation |
|-------------|---|-----------------------------|-------------------------|-----------------------------|
| | RISK-1b: Operation of Alternative 6 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-3b: Alternative 6 operations would not substantially interfere with any existing emergency response plans or emergency evacuation plans. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-4b: Alternative 6 operations would comply with applicable regulations and policies guiding development within the Port. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | 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: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |
| | RISK-6b: A potential terrorist attack could result in adverse consequences to areas near the proposed site during the construction period. | CEQA: Less than significant | Mitigation not required | CEQA: Less than significant |
| | | NEPA: Less than significant | | NEPA: Less than significant |

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1 **3.8.4.5 Mitigation Monitoring**

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

5 **3.8.5 Significant Unavoidable Impacts**

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

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