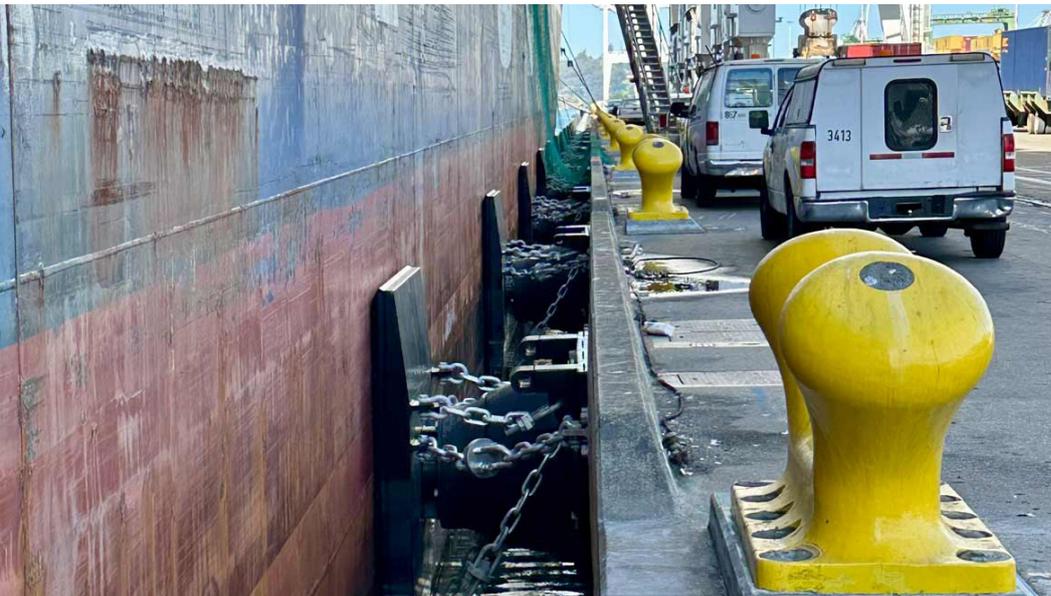


Upgrade for Shore Power

Terminal 55 – 59, Oakland, CA, USA



Application
Container Terminals

Type
SPC Cone Fenders

Date 2025

Reference 1297

A CLOSER LOOK AT THE CASE

The Port of Oakland, recognized as a top-3 gateway for containerized cargo on the U.S. West Coast, is undergoing a modernization project to enhance infrastructure and **reduce environmental impact**. As part of these efforts, Berths 55–59 are being **upgraded to accommodate ultra-large container vessels and shore power technology**.

To equip the upgraded berths and support the port's transition, ShibataFenderTeam designed and delivered 96 sets of Cone Fender systems (SPC 1300, G2.7) with closed-box panels (3050 x 4270 mm) and UHMW-PE pads, along with 85 double bitt bollards with a 200-ton capacity and 15 T-Head bollards capable of withstanding 300 tons.

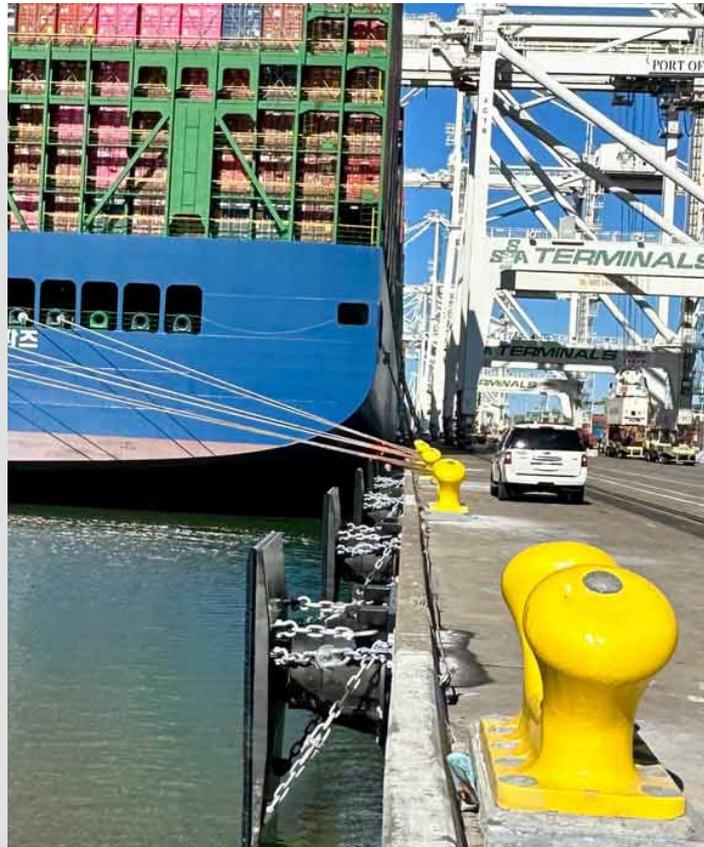
Project Scope

- ▶ 96 Cone Fender systems (SPC 1300, G2.7) with closed-box panels (3050 x 4270 mm) and UHMW-PE pads
- ▶ 85 double bitt bollards with 200t
- ▶ 15 T-Head bollards with 300 t

CHALLENGE AND SOLUTION

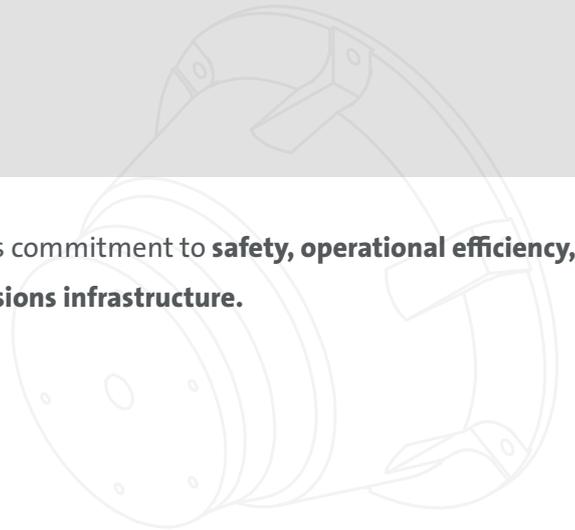
Solutions were designed not only to integrate seamlessly with the future shore power infrastructure, but also to absorb berthing energy and **protect structural components during complex vessel operations**. Our in-house engineering team addressed space constraints on the berth structure through **customized flange plates** that enabled precise installation of the fender systems and chains at the required angles and elevations, without modifying existing mounting surfaces.

A large number of bollards were also supplied, each equipped with change-over plates to allow use of existing anchoring positions and minimize the need for drilling or rebar cutting. Additional components included supporting struts installed at several fender positions to **reinforce the mounting areas and ensure long-term structural integrity**.



Terminal 55 - 59 | Oakland, CA | USA

The modernization of Berths 55–59 reinforces the Port of Oakland’s commitment to **safety, operational efficiency, and sustainability** through shore power integration and **zero-emissions infrastructure**.



ShibataFenderTeam is proud to have contributed to this advancement by delivering high-quality, reliable solutions that support the port’s vision for the future. Explore more SFT Case Studies or Contact Your Nearest Office.

