SUMMARY

During the final loading of unaccompanied units on car-deck during the ships stay in Fredrikshavn, Denmark, three movements took place on the ship's port side at the same time where only two Able Seamans (AB) were working. The Cargo officer in charge had also left his position close to the ships forward ramp, where he normally stood for routing incoming and outgoing vehicles, in order to pumping ballast. He noted that a boom lift was heading towards the ship, but did not stop the current loading. On the ship's port side one of the two AB:s was busy with maneuvering a waterproof barrier. The other AB was at the same time, busy with routing another trailer. He was standing with his back against the incoming cargo on the port side of car-deck.

When the boom lift came in a bit on the port side of the car-deck without any routing assistance, perceived the driver with no forward visibility, that a moving trailer would be passed. He did not see the AB who was busy routing that trailer with his back turned toward the incoming cargo. Shortly thereafter the boom lift hit the sailor.

Paramedics and doctors arrived at the car deck shortly after the alarm. The doctor stated before he left the ship that the sailor had died.

The Danish equivalent of the Swedish Work Environment Authority, the Danish Working Environment Authority, came on board for investigation purpose before the ship departed for Oslo. The Swedish Transport Agency (the ships supervisory authority) carried out one inspection on board in Oslo June 3, 2014 due to the accident.

The cause of the accident was that the boom lift was loaded and also allowed to proceed into car-deck despite no forward visibility and without any routing assistance on car-deck. This was due to that over the years they had developed unwritten practices where routing of unaccompanied units at the ship's ramp not always was carried out with determination and clarity when the stevedores were driving unaccompanied units.

Underlying causes were unclear responsibilities and procedures related to cargo handling.

Safety Recommendations

Stena Line is recommended:

- Evaluate and introduce clearer procedures and routines for cargo handling including cargo handling, responsibilities and routing and communication on the car-deck during loading and discharging, see section 2.3. *(RS2015:04 R1)*

- Evaluate and introduce more concrete requirements on personal protective equipment for all personnel involved in cargo-handling on the car-deck, see sections 2.4 and 2.5. *(RS2015:04 R2)*

- Evaluate and develop the company's emergency plans for the long term management of staff who have been involved in accidents and the relatives of those. The plan should also

include staff whose contract with the company has ended after the accident as well as those who come to serve on other ships in the Company, see section 2.7. *(RS2015:04 R3)*

Stena Line Denmark (stevedoring company) is recommended that in consultation with the shipping company:
- Establish clear written descriptions of procedures for loading and discharging of vessels including issues of responsibility and communication between the cargo officer, Able Seamans (AB) and the stevedoring company and also issues about routing, see section 2.8. *(RS2015:04 R4)*

The Swedish Transportation Agency is recommended:
- Review and develop their supervisory practices with regard to accidents on board Swedish ships abroad in order to ensure the prevention of accidents and safety-raising measures be taken without delay, see section 2.9. *(RS2015:04 R5)*

- Review and develop their supervisory methods in order to draw attention to issues of health and safety risks and updating of ships routine descriptions when supervisory action is taken on board ship, see section 2.3, 2.4 and 2.5. *(RS2015:04 R6)*

SAN - Maritime Joint Work Environment Council is recommended:
- Evaluate and consider an update of their "work environment manual" regarding personal protective equipment on board train and car decks, see section 2.6. *(RS2015:04 R7)*