

## **SUMMARY IN ENGLISH**

Kvistgaard Järn och Metall AB was a scrap metal recycling company that had a facility in Landskrona harbour. On the morning of 31 May 2021, a scrap shipment was being loaded on the vessel SALAR. The cargo was declared as metal waste and was to be exported to Latvia on behalf of the recycling company.

Shortly before 2 p.m. smoke developed in the cargo hold. The crane operator assumed that it was a powder fire extinguisher that broke and continued loading. After a short while the smoke development increased, the loading was stopped and the port staff called 112.

Resources from the Landskrona Fire Service arrived at the scene shortly after the alarm and The Coast Guard assisted in the extinguishing work. The development of smoke was extensive which resulted in an evacuation of a shipyard in the wind direction. Also, a so-called Important Announcement to the Public signal was sent out. It took almost twelve hours to extinguish the fire. The fire caused minor damage to the vessel.

The metal waste was mixed with different types of combustible material such as foam plastic, car tires and wood. Small amounts of flammable liquid were also found in the waste.

The probable cause of fire was sparks or frictional heat generated during loading that ignited flammable liquid or other flammable material.

The inspections of the waste were insufficient and waste with hazardous properties was therefore not removed. The risks of handling metal waste mixed with combustible material had also not been properly addressed.

## **SAFETY RECOMMENDATIONS**

To reduce the risk of fire, make rescue operations more efficient and limit the consequences in the event of fire in waste shipment, SHK issues the following recommendations.

### **The Swedish Environmental Protection Agency is recommended to:**

- In collaboration with the county administrative boards, strengthen the supervisory guidance to the municipalities regarding supervision of waste disposal operators. The supervisory guidance should address questions about the importance of inspections of the waste, special risks with certain types of waste and how the inspections can be carried out in practice (see section 2.7). *(RS 2022:05 R1)*
- Promote the analysis of the risks of mixing combustible waste into metal waste. Based on the results, the guidance in the area should be revised if necessary (see section 2.8). *(RS 2022:05 R2)*

**Kvistgaard Järn och Metall AB is recommended to:**

- Evaluate the inspections of incoming waste and, if necessary, take the necessary measures to ensure that waste with hazardous properties can be identified and handled safely (see section 2.6.1). (RS 2022:05 R3)

**Landskrona Hamn AB is recommended to:**

- Analyze the risks of fire when handling waste in the port. The results of the analysis should form the basis for improved alarm routines, training and other measures to reduce damage (see section 2.3). (RS 2022:05 R4)
- Introduce routines to ensure that the handling of waste during loading does not pose a risk to human health or the environment. One such routine may be to remove waste with hazardous properties from cargo (see section 2.6.2). (RS 2022:05 R5)

**Landskrona municipality is recommended to:**

- During inspection of waste disposal operations ensure that the type and quantity of the waste handled is inspected (see section 2.7). (RS 2022:05 R6)

**SOS Alarm Sverige AB is recommended to:**

- Inform the alerted municipal fire services that the Swedish Transport Agency's ship inspector also is alerted when that is the case (see section 2.5). (RS 2022:05 R7)

**The Landskrona Fire Service is recommended to:**

- Analyze the rescue operation and, if necessary, develop the action plans for ship fires. Such plans should contain information that the Swedish Transport Agency's ship inspector should be alerted at an early stage and what he or she can assist with (see section 2.5). (RS 2022:05 R8)

**The Swedish Civil Contingencies Agency (MSB) is recommended to:**

- Compile information on the lessons learned by the Landskrona Fire Service from the incident and forward this to other rescue services that have ports for larger vessels within their operational area (see section 2.5). (RS 2022:05 R9)