forestry, fisheries
& the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

NATIONAL ASSEMBLY

(For written reply)

QUESTION NO. 350 {NW363E}

INTERNAL QUESTION PAPER NO. 2 of 2022

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Ms A M M Weber (DA) to ask the Minister of Forestry, Fisheries and the Environment:

(1) Whether her department conducted any investigation into the incident of the bulk carrier NS Qindao that left Durban Harbour in November 2021 when the cargo aboard started to emit toxic fumes after more than 1000 tonnes of the cargo have already been removed; if not, why not; if so, (a) what is the breakdown of the exact details of what the cargo onboard the vessel contained, (b) what different chemicals were on the vessel, (c) which chemicals caused the toxic fumes and (d) what impact has she found did the fumes have on the atmosphere regarding air pollution;

(2) (a) what are the relevant details of the 1000 tonnes of cargo that had already been removed and (b) where was it taken to?

350. THE MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT REPLIES:

(1) The department has not conducted an investigation. The South African Maritime Safety Authority (SAMSA), as the mandated entity under South Africa's maritime transport legislation is investigating the incident. Other authorities, including the Department of Forestry, Fisheries, and the Environment (DFFE) are available to assist.

(a)(b)

The current details of the cargo onboard consist of the following chemicals. The SAMSA-led investigation will confirm whether any additional chemicals were onboard.

- Sodium metabisulfite (estimated 161 tonnes): $Na_2S_2O_5$: A reducing agent, sensitive to water and air, and should be kept away from oxidisers, for example , nitrates. Generates fumes if in contact with acids.
- Ammonium sulphate (estimated 371 tonnes): Incompatible with oxidizing agents, nitrates, chlorates, copper and zinc. Generates ammonia, nitrogen oxides (NO_x) and sulphur oxides on decomposition.
- Carboxymethyl cellulose (estimated 221 tonnes): A combustible material, to be kept away from oxidisers ,for example, nitrates produces CO and CO_2 on decomposition.
- Calcium formate (estimated 202 tonnes): A combustible material, producing CO and should be kept away from oxidisers.
- Electrode paste (estimated 148 tonnes): This material is combustible but will not ignite readily. Burning produces heavy smoke. Generates NO_x; SO_x & CO_x.
- Magnesium nitrate hexahydrate (estimated 360 tonnes): Mg(NO3)2,6H20. An oxidiser to be kept away from combustible materials and reducing agents.
- Caustic calcinated magnesite (estimated 121 tonnes). Non-combustible. Reacts with acids. Water will react with magnesium oxide to form magnesium hydroxide and release heat and steam.

(c)

Toxic fumes were caused by the chemicals (specifically ammonium sulphate, sodium metabisulfite and caustic calcinated magnesite) coming into contact with rainwater.

(d)

From time to time, the vessel crew vented the cargo hold to release the emitting fumes in a controlled manner. Gases that were released include nitrogen oxide, sulfur dioxide, hydrogen sulphide and ammonia in various concentrations. The venting of the cargo hold was conducted as far as possible when wind conditions allowed for the fumes to be dispersed in an offshore direction.

(2)(a)

The cargo that was removed and placed into skips are currently being analysed chemically as to what it consisted of. All the chemicals loaded into skips had been mixed thereby making it difficult to assess the compounds at this time. Analysis of the samples taken will be sent to the department for assessment.

(2)(b)

The cargo was loaded into skips were taken to Vissershok hazardous waste site and disposed of appropriately.

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MS B D CREECY, MP

MINISTER OF ENVIRONMENT, FORESTRY AND FISHERIES

DATE: 25/2/2022