



**Ministry of Environment
and Food of Denmark**

Environmental
Protection Agency

Seveso III; Art. 2 and Risk from ammonia and chlorine

Chemical Accident Risks Seminar
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Article 2.2 (c)

‘This Directive shall not apply to any of the following:

(c) The transport of dangerous substances and directly related intermediate temporary storage by road, rail, internal waterways, sea or air, outside the establishments covered by this Directive, including loading and unloading, and transport to and from another means of transport at docks, wharves or marshalling yards’



Article 2.2 (c)

A Danish commission recommended that:

The intermediate temporary storage of dangerous substances should be included in the Danish implementation of Seveso because they may pose a permanent risk to the surroundings despite the fact that each transport is there temporarily



Article 2.2 (c)

The legislation therefore contains the following addition:

‘Unless the following is relevant:

- a) Temporary storage of dangerous substances inside buildings**
- b) Areas that regularly are used for temporary storage of dangerous substances directly related to transport, e.g. at docks or marshalling yards.’**
- c) Areas where dangerous substances are stored during transport for more than 48 h, however in rail and marshalling yards more than 60 h.**
- d) Reloading during transport of bulk liquid and gas substances between transport vessels...’**



Article 2.2 (c)

This has resulted in at least 4 new establishments that have submitted accident-scenarios. 2 are harbour areas and 2 are railway marshalling yards. The subsequent evaluation by the authorities shows that it has been necessary to require further measures to reduce the risk of accidents and their consequences

We have developed a tool to help predict the qualifying quantities by converting UN-codes to Sev. III Categories. This can support the establishments to predict if the qualifying quantities are reached often enough and the establishment therefore should be a Seveso site in Denmark: <https://dma.mst.dk/tk>



Ammonia and chlorine storage close to areas with sensitive planning activities

The Danish commission also recommended that storage of some dangerous substances close to residential areas or other sensitive uses should be classed as lower tier establishments. So the following addition has been made to note three to annex I :

For chlorine and ammonia for the lower tier threshold in Annex I, Part 2 an addition has been made for the qualifying quantities in brackets. This shall apply if the establishment is present closer than 200 m from residential areas, institutions or similar uses where many people (>150) are present and the qualifying quantities are 5 tons or more.



Ammonia and chlorine storage close to areas with sensitive planning activities

In Denmark there are now around 20 establishments that are covered by the regulation. For the most part because of the use of ammonia in cooling installations e.g. in the food industry.

For some of these establishments it has also been necessary to require substantial measures to reach an acceptable risk in the surroundings.



Example – Cooling system (app. 25 tons)

