Abstract

A secondary containment on an oil terminal is a second protection for tanks which handles fuels. If a leak occur from a tank or surrounding equipment the secondary containment should capture the leak and prevent dissemination to surrounding nature. The secondary containment should also protect that fire shouldn’t be able to come in or out of the containment.

The risk and probability that Shell in the Nordics should get a leak from one of their tanks have been calculated to one leak per year. If the accident is extensive the consequence can be enormous and make damage to humans, nature, property and business. This risk should be minimized, and one step in the right direction is to build secondary containment around all large product tanks which handles environmental dangerous fuels.

This report contains many different models of secondary containment that have the function as secondary protection. These models have been evaluated on factors that are presumed to be important, such as environmental safety, fire safety, cost to build etc.

A vision have been created for how the ultimate secondary containment should look like, and in regards to this vision, the different models have been evaluated. It’s described how it looks like on oil terminals today, and also what recommendations and legal requirements there are from Swedish authorities regarding secondary containment on oil terminals.

This report provides a understanding around which alternatives there are for construction of secondary containment, and is also a tool for choosing the right model for the specific situation with the circumstances that prevail there.