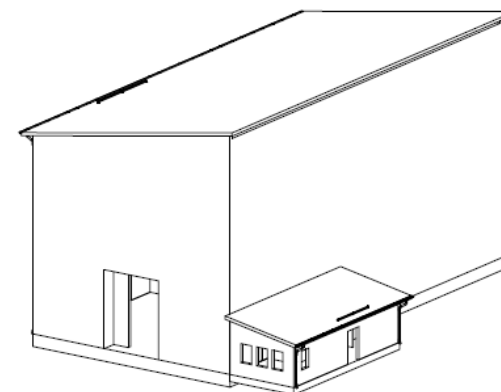
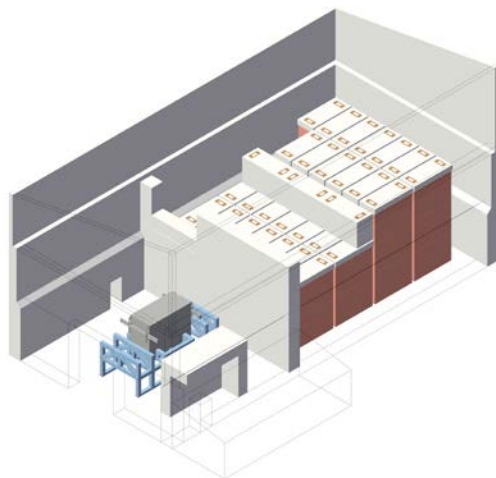
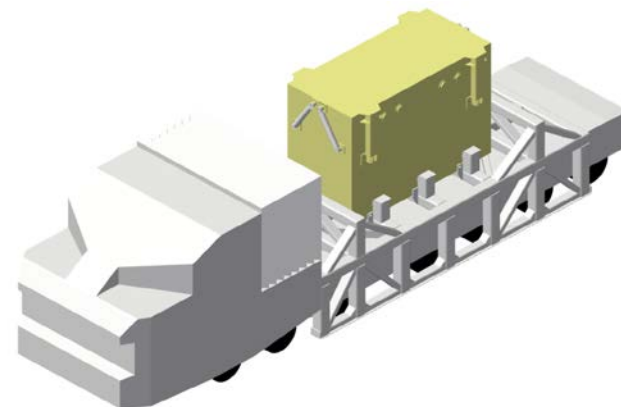
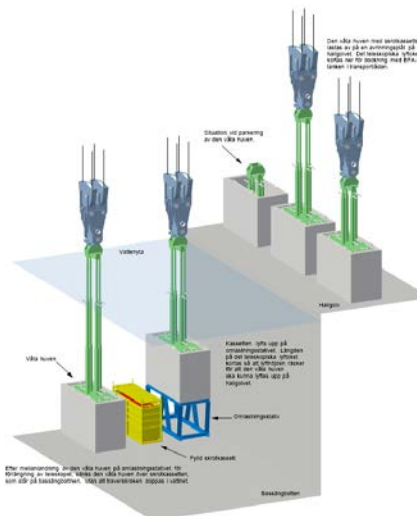
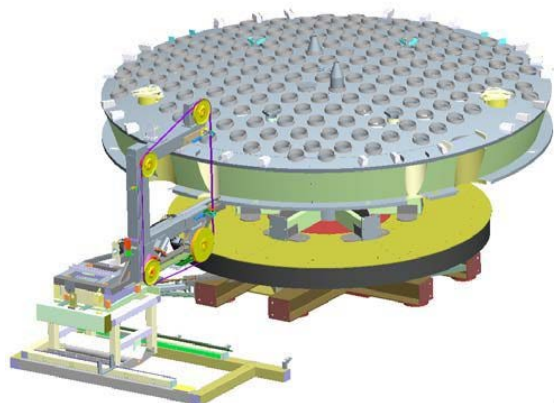


# Dose budget and expected emissions



# Dose budget for project HINT

- The collective dose for the project HINT is estimated to be 197 mmanSv.
- The prognosis is based on the outcome on collective dose on the Forsmark NPP and Oskarshamn NPP that have performed similar projects on reactor internals. When calculation the corresponding collective dose at Barseback NPP, the number of steel containers and their dose rates are taken into account.
- The jobs have been planned according to the ALARA principle:
  - Shielding the internals, (water, steel, concrete)
  - Work at distance from objects
  - Use of camera equipment
  - Optimized amount of samples
  - Use of proven technology
  - Use of filters
  - Extra whole body scan to avoid spread of activity

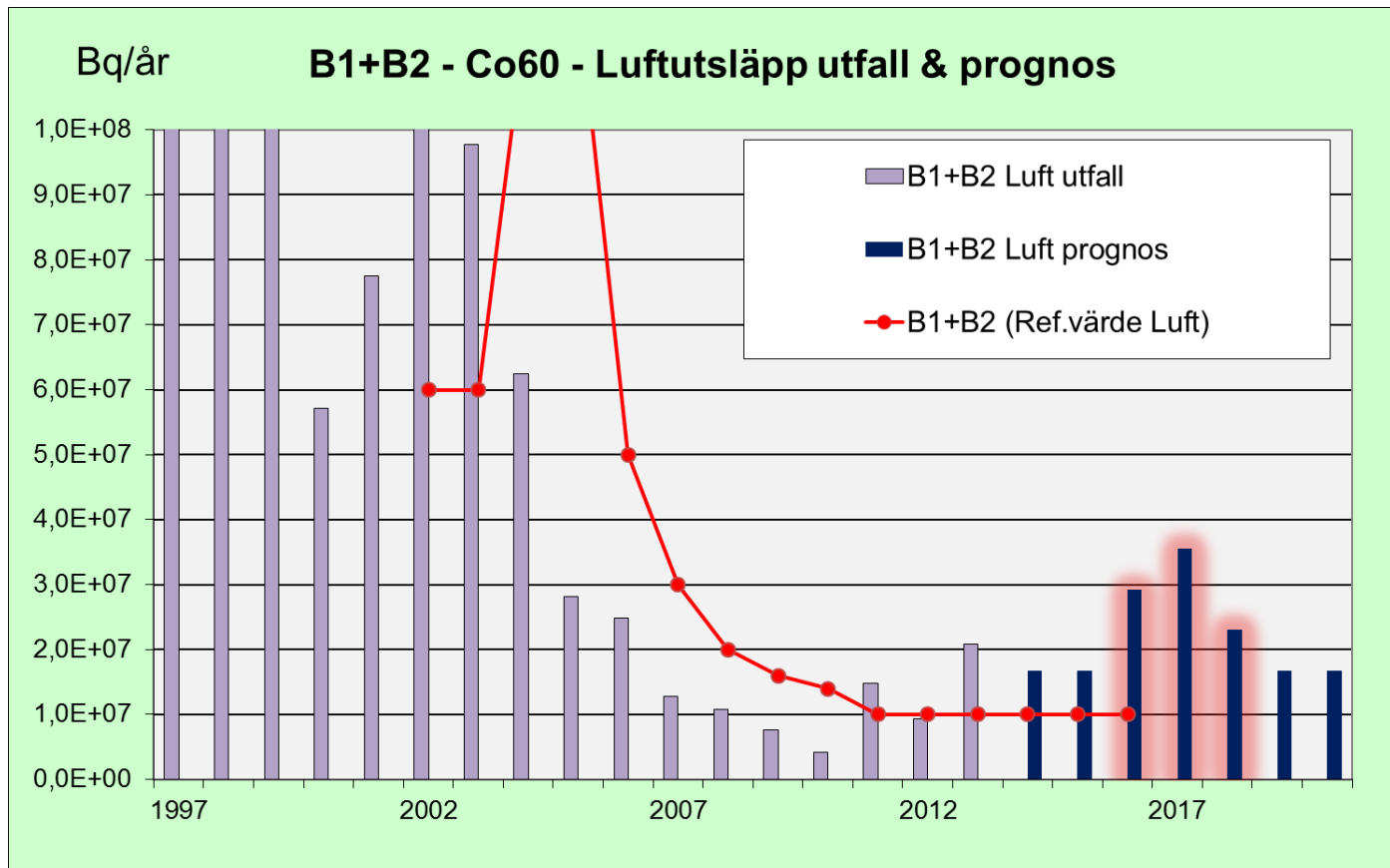
# Expected emissions of activity during project HINT

- Emissions of activity to air and water have been prognosticated.
- The prognosis are made similar to the prognosis of dose budget, by study the outcome from the Forsmark NPP and Oskarshamn NPP.
- To Air:

	<i>Emissions of Co60 to air, ONLY as a result of the project HINT</i>			TOTAL emissions of Co60 to air, including other activities in addition to the project HINT		
	<i>B1 [Bq/year]</i>	<i>B2 [Bq/year]</i>	<i>B1+B2 [Bq/year]</i>	B1 [Bq/year]	B2 [Bq/year]	B1+B2 [Bq/year]
2016		1,25E+07	1,25E+07	1,10E+07	1,81E+07	2,92E+07
2017	6,25E+06	1,25E+07	1,88E+07	1,73E+07	1,81E+07	3,54E+07
2018	6,25E+06		6,25E+06	1,73E+07	5,61E+06	2,29E+07
Sum [Bq]	1,25E+07	2,50E+07	3,75E+07	4,56E+07	4,18E+07	8,75E+07

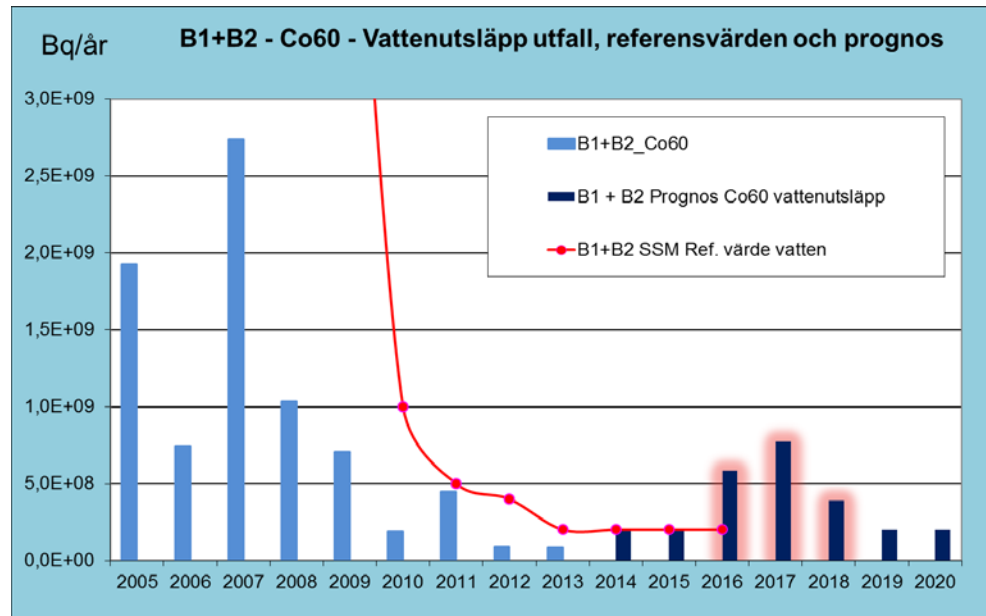
# Expected emissions of activity during project HINT

## ■ To Air:



# Expected emissions of activity during project HINT

## ■ To Water:



	<i>Emissions of Co60 to water, ONLY as a result of the project HINT</i>			TOTAL emissions of Co60 to water, including other activities in addition to the project HINT		
	<i>B1 [Bq/year]</i>	<i>B2 [Bq/year]</i>	<i>B1+B2 [Bq/year]</i>	<i>B1 [Bq/year]</i>	<i>B2 [Bq/year]</i>	<i>B1+B2 [Bq/year]</i>
2016		3,82E+08	3,82E+08	6,81E+07	5,18E+08	5,86E+08
2017	1,91E+08	3,82E+08	5,73E+08	2,59E+08	5,18E+08	7,77E+08
2018	1,91E+08		1,91E+08	2,59E+08	1,36E+08	3,95E+08
Sum [Bq]	3,82E+08	7,64E+08	1,15E+09	5,86E+08	1,17E+09	1,76E+09

# Expected emissions of activity during project HINT

- Dose to critical group:

