

RP Recommendations for the Water Cooling Circuit for the Future PSB Dump

R. Froeschl, J.Vollaire, S. Roesler
June 14th 2012

Meeting June 1st

Review of present radiological situation

Estimation of future radiological situation for various scenarios

- ▶ Tritium content
 - ▶ Acceptable even for a dedicated circuit of 1000 liters water volume
 - ▶ Tritium release due to currently existing leaks unacceptable in case of connection to existing circuit
- ▶ Dose rate in vicinity of cooling pipes
 - ▶ Due to short lived activation products
 - ▶ Unacceptable level in case of connection to existing circuit

Conclusions

- ▶ RP recommends a dedicated water cooling circuit for the future PSB beam dump
 - ▶ Confined to tunnel area
 - ▶ Sampling points with dedicated safety valves
- ▶ Consolidation of the existing circuit
 - ▶ Clear separation between the cooling of components installed in areas where the potential for activation exists (equipment in the tunnel) and components where activation is negligible or impossible (e.g., above-ground infrastructure)
 - ▶ Existing leaks should be eliminated