

BARC Containment Model (BARCOM), Tarapur

BARCOM is a 1: 64 volumetric scale down model of 540 MWe PHWR. Objective of BARCOM containment models was evaluation of structural integrity and containment failure modes for PHWR containments under extreme conditions

Following tests were conducted in BARCOM containment

- (i) Over pressure Test (OPT) up to the Functional Failure of model
- (ii) Leakage Characterisation tests- Local Leak Rate test
- (iii) Proof Test (PT) and integrated leakage rate test (ILRT) up to 1.44 kg/cm².

Experiments carried out beyond Design Pressure (1.44 kg/cm ² -g) of the Containment Model						
	Test 5			Test 9		
	First Over Pressure Test beyond Design Pressure (1.44 kg/cm ² -g) (16th Dec 2010)			Final (& Post Repair) Over Pressure Test beyond Design Pressure (1.44 kg/cm ² -g) (2nd Oct 2011)		
	Pressure	Leak rate	Leak percent	Pressure	Leak rate	Leak percent
	kg/cm ² -g	s M ³ /hr	%	kg/cm ² -g	s M ³ /hr	%
During Pressurisation	0.50	7.17	0.30			
	1.00	16.27	0.50			
	1.44	21.18	0.54			
	2.00	96.55	2.06			
During De-Pressurisation	2.18	841.38	16.68	2.42	1120.00	20.63
	1.44	88.57	2.27	1.44	64.37	1.65
	1.10	35.14	1.05	1.00	23.60	0.74
	0.50	10.31	0.41	0.50	8.50	0.35

Primary Containment pressure variation during OPT

