

National Conference on Regulatory Interface (NCRI) (November 28 & 29)

Consenting Process of AERB for Regulation of NPPs

28/11/2017

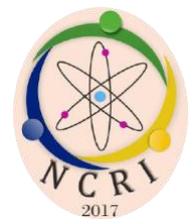
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- ❖ ***Consenting process for PFBR based on the (AERB/NPP/SG/G-1)***



Consenting stages for NPP

- ✓ *Siting*
- ✓ *Construction*
- ✓ *Commissioning*
- ✓ *Operation*
- ✓ *Decommissioning*
- ✓ *Release from regulatory control*



Consent issued for various stages of PFBR

- ❖ *Site Clearance*
- ❖ *Excavation Clearance*
- ❖ *First Pour of Concrete (FPC) for Ventilation Stack*
- ❖ *Nuclear Island Connected Building (NICB) Raft*
- ❖ *Restart the construction of NICB raft (after tsunami)*
- ❖ *Perimeter wall around NICB and safety related buildings /structures*



Consent issued for various stages of PFBR

- ❖ *Construction of NICB superstructures and other safety related buildings*
- ❖ *Construction of reactor vault upto 26.715 m EL and spent sub-assembly storage bay*
- ❖ *Clearance for Safety Vessel erection & upper lateral construction*
- ❖ *Clearance for erection of major equipment*
- ❖ *Melting and purification of sodium in SGB-1*



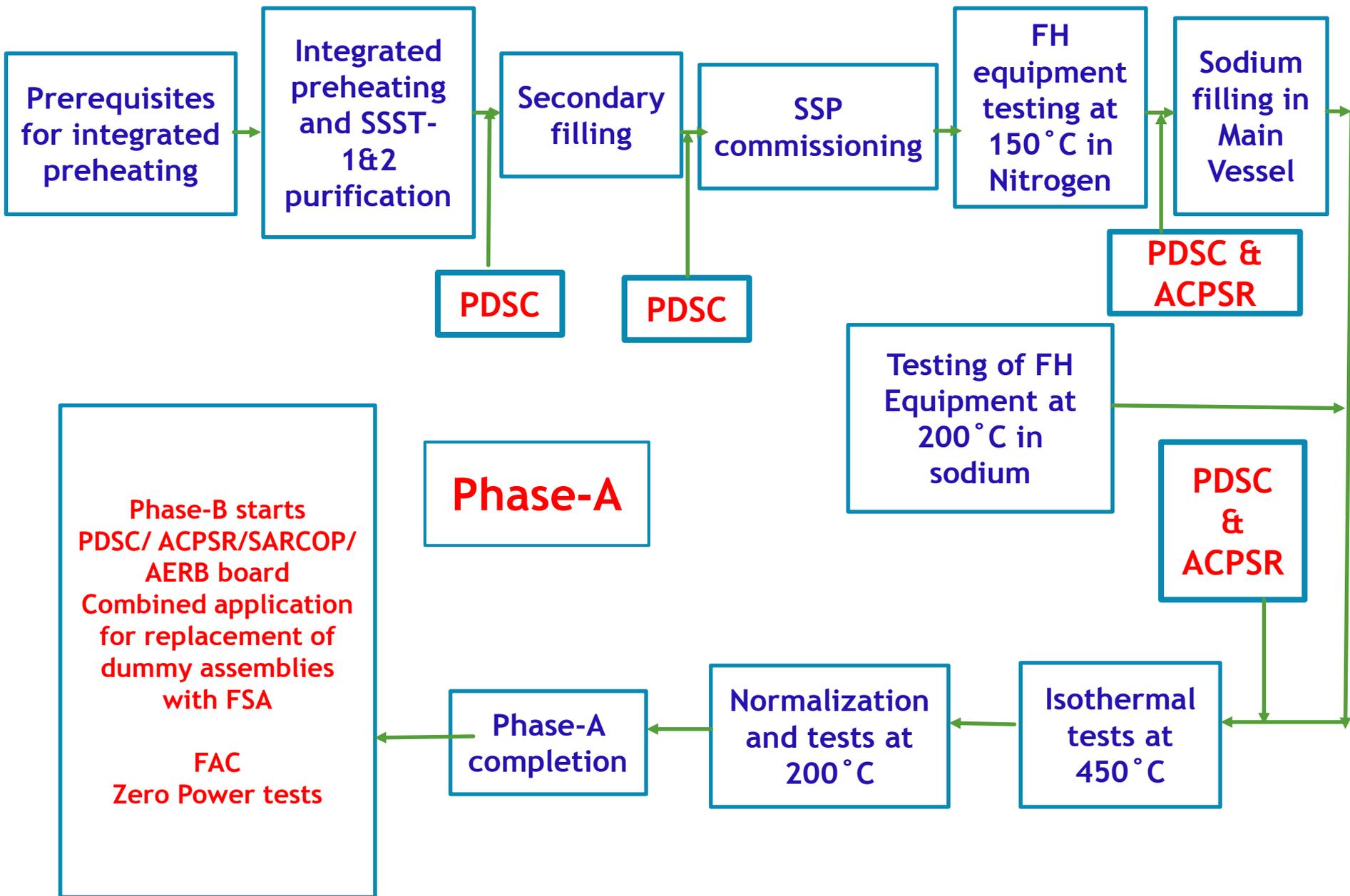
Consent issued for various stages of PFBR

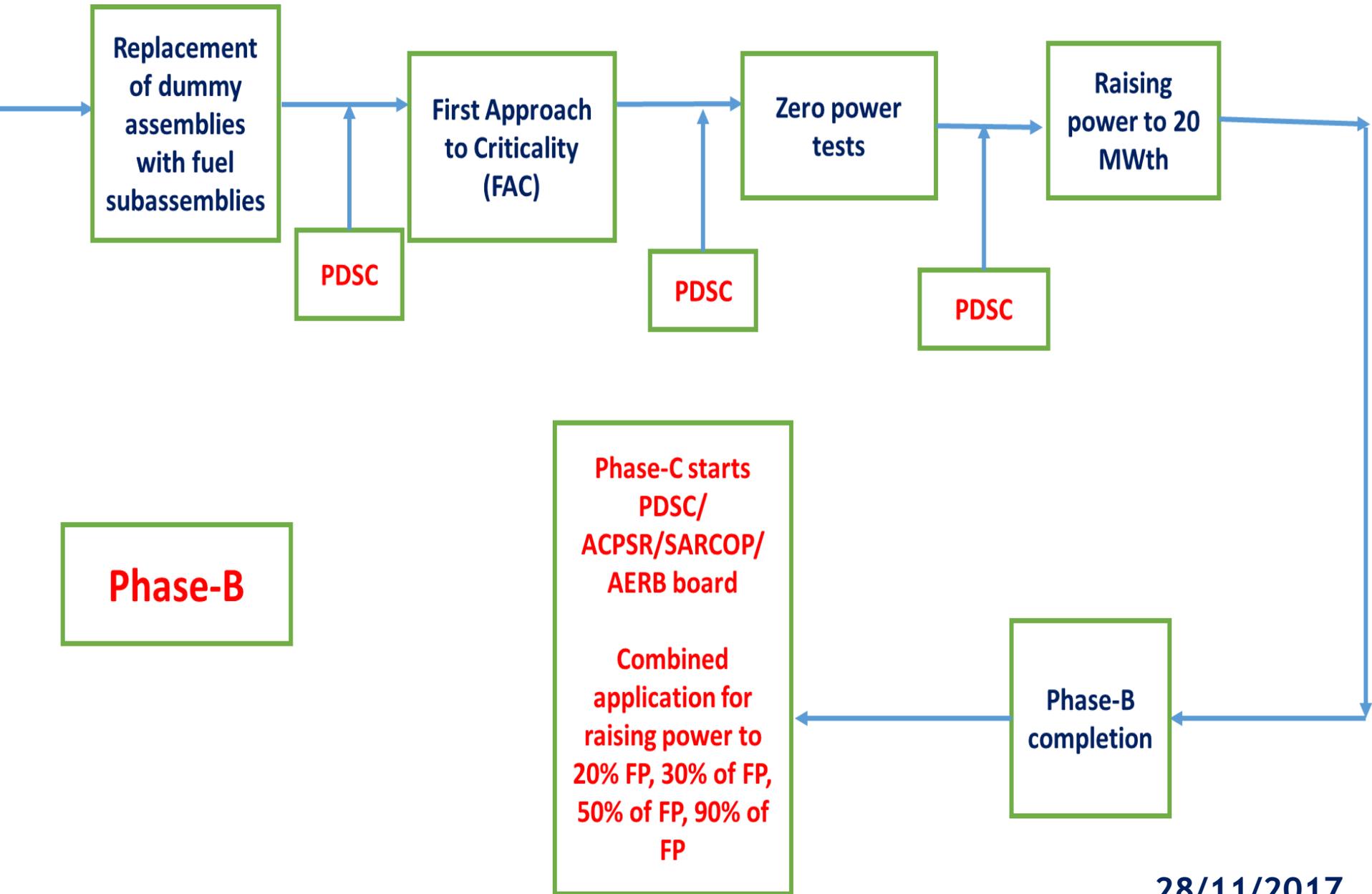
- ❖ *Integrated preheating of Reactor Assembly & Sodium Circuits*
- ❖ *Filling of sodium in both secondary loops in SGB-1 &2*

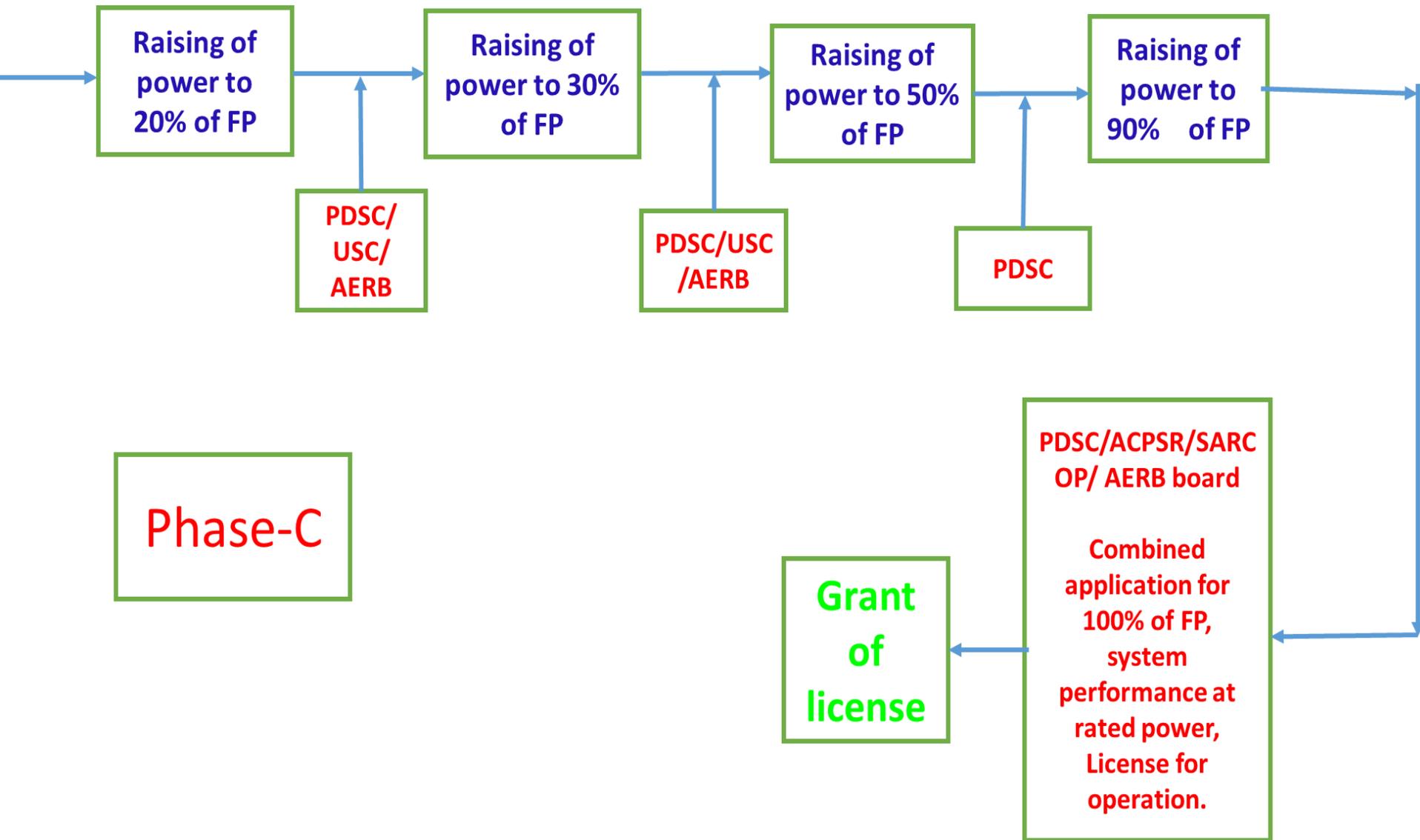


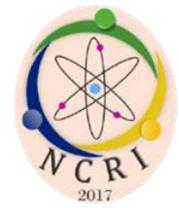
Commissioning phases of PFBR

- ❖ **Phase- A : *Commissioning of Auxiliary and Sodium systems***
- ❖ **Phase- B : *Loading of fuel and First Approach to Criticality (FAC)***
- ❖ **Phase- C : *Power operation***









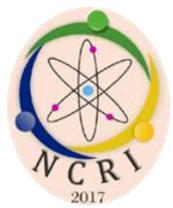
Documents for consenting process

- ❖ *QA manual for Commissioning & operation*
- ❖ *Commissioning programme, schedule (including commissioning network indicating regulatory hold points and clearances)*
- ❖ *Clause-wise compliance to AERB/SC/O, AERB/SC/RP, AERB/SC/RW*
- ❖ *Organization for commissioning and operation*
- ❖ *Technical specifications for operation [SAR(P) Chapter 16 as per AERB/SG/G-9]*
- ❖ *Training and qualification program (including schedule for licensing key operating personnel)*



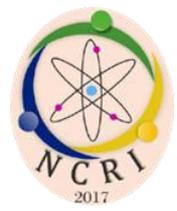
Documents for consenting process

- ❖ *Emergency preparedness plans for plant, site and off-site*
- ❖ *Commissioning Procedures as identified during safety review*
- ❖ *Commissioning related submissions covering system status and test results and performance data*
- ❖ *Pre- operational test reports*
- ❖ *All SAR Chapters as per AERB/SG/G-9 (updated)*
- ❖ *Radiation Protection Programme (RPP) Manual*
- ❖ *Manual on nuclear security measures.*



Review of the Documents for consenting application

- ❖ *The identified documents for the consenting process are being reviewed by the following committees before submission to AERB*
- *Internal Safety Committee (Design related)*
- *Internal Review Committee
(Commissioning related)*



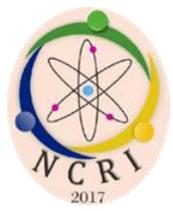
Site Feedback

- ❖ *Establishment of centralized document submission cell at AERB, has helped in better coordination between site and regulatory body.*
- ❖ *Reviews by IHRG-AERB before meetings also helped in constructive review, reduced number of meetings, revision and resubmission of documents.*



Site Feedback

- ❖ *Review of documents by various specialist groups through Video conferencing may be considered. Also review meetings preferred at site.*
- ❖ *Any minor change from consent (based on site constraints), Regulatory Hold Point clearance may be considered based on site observation, test results and feedback from AERB authorized representative stationed at site.*



Consenting process for FBR- 1&2

❖ *Consenting process for FBR-1&2 will be based on the revised guide*

(AERB/NPP/SG/G-1/ Rev-1)



Thank you

28/11/2017