Task list / Outstanding issues
PBMRT3 meeting

- Specification / information to be finalised:
  - Treatment of cusping effect (Case 5) needs to be decided. Action: NRG do transport XS weighting to get D's; rest by volume weighting; PBMR to test
  - Energy release per fission value on library too low. Action: PBMR to check and make suggestion / correction; NRG to send WIMS values; Will update if any other reason to update library
  - Kernel / fuel element detailed thermal-hydraulics model needed for fast transients – Action: PBMR to discuss with IKE; FZK to assist
  - PLOFC (Case 3): Treatment of 60 bar constant or keep gas inventory constant and allow pressure to change. Action: PBMR to make proposal on coupled to large volume and temperature to simulate actual conditions; Iterate with KAERI, Update specification
- Point kinetics parameters to be supplied. Is there still a need? Action:No action now, only upon new requests
- Transport cross sections now added to dynamic library.
  - Investigate if transport cross sections for the test library (Case 1) can be given. Action: PBMR to check and report to B Tyobeka / meeting
  - Test the supplied cross sections in transport codes – Action: B Tyobeka in DORT-TD; B Boer to follow up with US (CdeO)

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- All results submitted must be for a converged results / meshes refined to show this (or explanations if not achieved). Action: Update template to state this in submission, give detail, PBMR to add to templates
- ALL:
  - Convergence criteria used to be given by participants
  - Boundary conditions used to be clearly stated
  - Figure of merit (proposed by PSU – to facilitate this as part of statistical analysis)
  - Add heat flux (heat loss) to outside system as a required result (as already supplied by some participants); Spec will reflect this and the template.
  - Add temperature distribution in CB and RPV? NOT TO BE INCLLUDED
- Temperature definitions: Terms to be used: Moderator temperature (all graphite in core / region average); Fuel temperature (inner fuel sphere region over 5cm diameter); and Central Fuel kernel temperature (specification and templates to be consistent. (Distinction between kernel and graphite temperature for Case 5b) Action: PBMR to make sure its correct in updated specification.

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- ALL:
- Need short summaries of codes / methods to be used from all participants. Length: 1page for code with template (PSU)? Action: All; 31 July 2007 -> These will be included in an Appendix
- Generation of a reference calculation for Case 1. (VSOP mesh refinement will lead to cross sections being updated). CITATION stand-alone calculations… Action?, MCNP mentioned last workshop. What to do with cross sections – can use VSOP isotopic vector. (such comparisons done by PBMR – HTR2006).

- Proposal for simplified problem from Korea. Core region and reflector region. Only for work in progress, not part of specification. One or two region problem with a analytic solution?? PBMR to make call after update of the results received on Case 1 and 2; Dodd benchmark problem

Task list / Outstanding issues
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- CASE3 to clarify:
  - Fuel and Moderator temperature coefficients to be reported – with clear definitions (use only as second phase if differences can not be resolved…)
  - Xenon distribution maps
  - make sure effects are similar before the transients are compared in detail?
  - Some additional information / sub cases needed for Steady-state Case 3?? Buckling/leakage values
  - Thermal conductivity
  - Action:
- Control rod withdrawal reactivity worth to be estimated with steady state calculations (in support of cases 5); Action: ARI, ARO steady state results- added to definition; all to do
- Beff vs physical B in 2 groups. Action: PBMR to make sure / discuss with FZJ (G Strydom); K Ivanov to advice
- Spreadsheets to be put back on web page after updates. Action PSU:15 June 2007.

Task list / Outstanding issues PBMRT3 meeting

- Transient case updates, Thermal conductivity 0.2 – 0.26 YES, Trickle flow Case 1; Slower change of mass flow for case 4 (6 minutes) Action: PBMR, with next update (15 June)
- Checklist for Cases; Convergence, meshes, boundary conditions. Action: PSU to draft (15 June 2007), to be sent with update
- Reference solution to be found for Case 1 (Delft /DALTON) and 2 (KAERI)
  - The average of converged solutions will look better
  - PSU to judge how to / and if to use this (may not use the reference but the statistical approach)
- THERMIX codes (versions) to be followed up
  - 4 users of THERMIX-DIRECT to compare input data and clarify their differences.
- Questions on models to be drafted by PSU
- Transport cross section definition to be added to spec.

Target dates
PBMRT3 meeting

1	Updated benchmark specification with all clarifications from this meeting included. Draft document for comment distributed	PBMR Comment asked from all 15 June 2007
2	Specification document with feedback incorporated – send draft to OECD / made ready for publication	All give feedback: 31 August PBMR to update and send to OECD; 15 October 2007
3	Updates for Steady-Case 1&2.Drafting of comparison document will start) Code descriptions also submitted	All 31 August 2007
4	Steady-state case 3 results updated; Comparisons to be made and placed on web for all to analyse	All 31 August 2007
5	Multi-dimensional cross section library (status ok?, Update energy release per fission? Additional tests required?	To be frozen; If updated needed; 15 June
6	Transient cases draft (sent to PSU 1 September) PSU to put on web page 30 September and ask comments, Specific questions to be raised	1 Sept / 30 Sept
7	Updated transient results to PSU Outline of Volume II (Results)	1 December

Special sessions

- Special session at PHYSOR 2008
  - 1000 words summary, 5 October 2007
  - Full papers, 2 May 2008
  - Thus we have to plan / coordinate it now.
  - 14-19 September 2008
  - Journal special issue as target – if status is mature.

- Next meeting, most probably : 31 Jan – 1 Feb 2008, in Paris
- Our last meeting at Physor2008?