

Format of benchmark calculation (ITB, Indonesia)

In benchmark calculation of ITB, the problem is specified for the benchmark as follows:

The requested functionals are as follows:

- k_{eff}
- axial and radial power distributions in the core*
- power peaking factors in the core zones
- volume averaged neutron spectra in the core zones
- k_{inf} in the core central zone.

* Radial power distributions are to be calculated in two planes: in the core mid-plane. Axial power distributions are to be calculated in the radial centre of each core zone.

In this format, you can use tables as follows;

- Table.1: k_{inf} for each condition and core
- Table.2 1 group isotopic cell average cross sections for all isotopes
- Table.3: BOC k_{eff} value from different codes
- Table.4 ~ 6: k_{eff} by time step, Region powers and power peaking factors, and Volume averaged neutron spectra in the core.

Please input number of energy group, using codes, using library and so on from the next page. If lines in table are not enough, please add lines you need. About Figure, please insert after tables in each mode. Thank you for your cooperation.

Number of energy group: please input

Use codes: please input

Use nuclear data set: please input

----- Cell calculation -----

Table.1 k_{inf} for each condition and core

	C1	C2
k_{inf} with zero buckling		
k_{inf} with critical buckling		

Boundary conditions used on the cell perimeter: please input

Method of treating resonances: please input

Form of the slowing down equations: please input

Code used to solve the unit cell: please input

Table.3 BOC k_{eff} value from different codes

BOC k_{eff}	
Codes	k_{eff} value
(e.g.) code.A	1.0000

Table.4 k_{eff} by time step

year	Codes		
	(e.g.) code.A		
0	1.00000		
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Table.5 Region powers and power peaking factors

	ZONE	Power(Watts)	Power Density (Watts/cc)	Peak Density (Watts/cc)	Peak to AVG. Power Density
BOC	Core1	(e.g.) 1.00E+08			
	Core2				
EOC	Core1				
	Core2				

