Core Configuration & Cycle diagram of Pressurized Water Reactor

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1 Quiz

1.1 *Questions*

1. What is the operating pressure of a pressurized water reactor?

2. Why is enriched uranium required for power generation in a pressurized water reactor?

3. Which one of the following is outside the PWR containment structure?
(a) steam generator (b) pressurizer (c) primary coolant pump (d) turbine

4. The role of pressurizer is to maintain pressure in the secondary coolant loop. Say true of false.

5. At the time of manufacturing, a gap is provided between the fuel pellets and fuel rod
(a) to account for fuel expansion (b) to reduce resistance for heat transfer
(c) to accommodate fission gases (d) to accommodate coolant entering the fuel rod

6. Control rods are inserted from the bottom in PWR. Say true or false

7. What are the objectives of CVCS?

1.2 Answers

1. 155 bar

2. Light water is used as the moderator whose moderating capability is lower. This has to be compensated by the use of enriched uranium

3. (d) turbine

4. False

5. (a) & (c)

6. False

7. (i) To maintain the purity of primary coolant with the help of filters
(ii) To maintain the boron concentration at desired levels
(iii) To maintain water level in pressurizer at desired level.