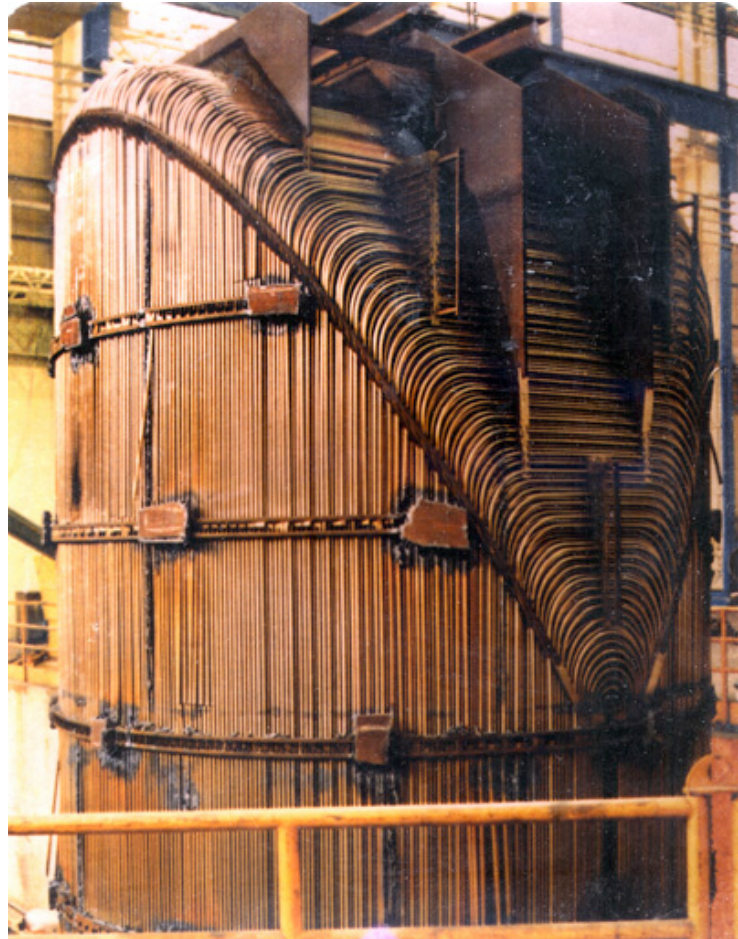
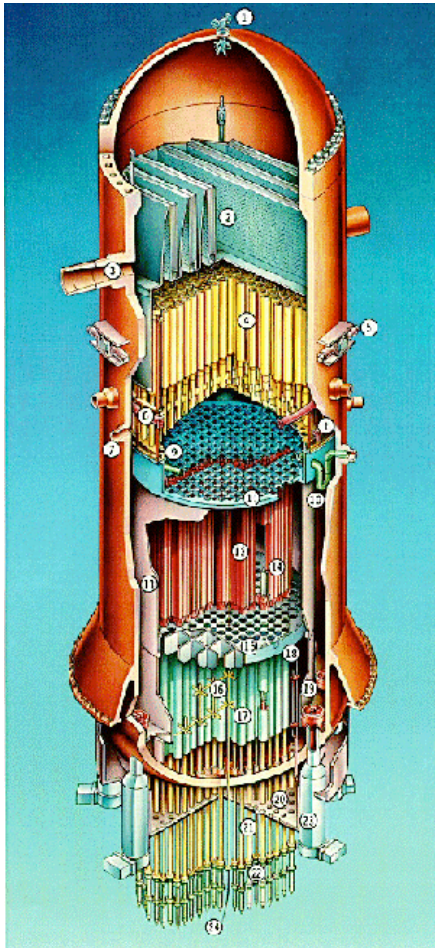


## ***Nuclear Intestines***

***Inside each of the old steam generators from Bruce reactors are 5000 radioactively contaminated tubes, similar to those shown here.***



A nuclear steam generator (these are US models, not CANDUs) is an enormous vessel with steel walls. It is a nuclear "boiler". However, the water from the core of the reactor (called the "primary coolant") is not allowed to boil; instead, the primary coolant runs through thousands of small tubes that act as heating elements to boil other water called "secondary coolant". The steam from the secondary coolant is then used to spin a turbine and generate electricity.

The picture on the right shows the thousands of long narrow tubes inside a steam generator. The tubes become corroded and radioactively contaminated over time; eventually the entire steam generator has to be replaced.

Radioactive materials are deposited on the insides of these tubes by the primary coolant which comes directly from the core of the reactor. And when these tubes spring leaks the radioactive contamination passes from the "primary side" (inside the narrow tubes) to the "secondary side" (outside those tubes).

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