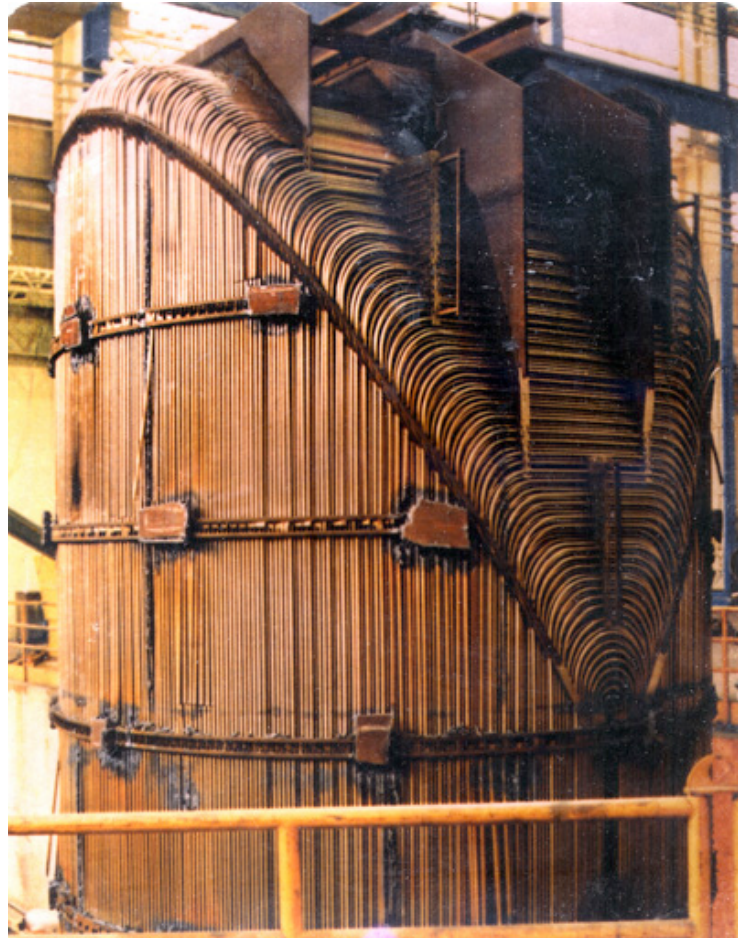
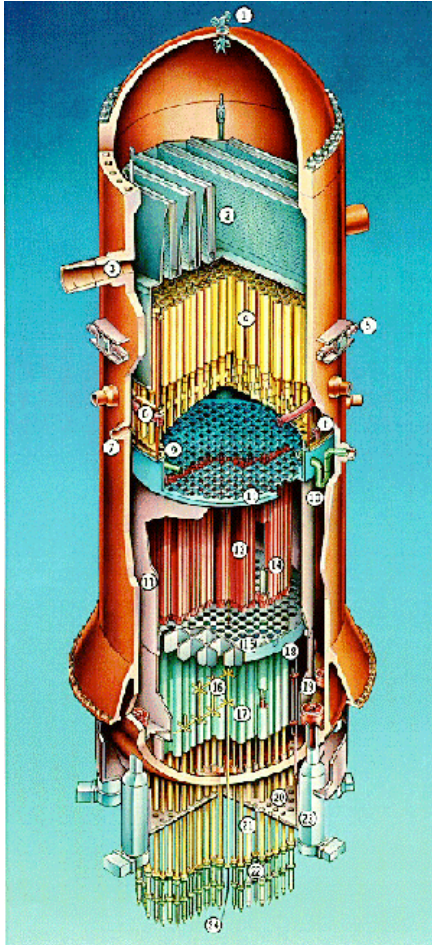


Nuclear Intestines: "The Tube Bundle"

Inside each of the old steam generators from Bruce reactors are 4200 radioactively contaminated tubes, similar to those shown here.



A nuclear steam generator is an enormous vessel with steel walls (this is a US model, not a CANDU). It is a nuclear "boiler".

The water from the core of the reactor ("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 the "secondary coolant". The steam generated is then used to spin a turbine and produce electricity.

The picture on the right shows the thousands of long narrow tubes inside a steam generator. Laid end to end they would stretch 1000 km or more. These 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. When these tubes spring leaks the radioactive contamination passes from the "primary side" (inside the narrow tubes) to the "secondary side" (outside those tubes).

*The Studsvik company brags that it "has recently developed a unique process ... to treat and reduce the volume of the **highly radioactive tube bundle.**"*

- Gordon Edwards, Ph.D.