

Chelan PUD Commissioners Briefing

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**DOH EPH Division
Office of Radiation Protection**

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CDC Graphic

Washington State Department of Health

Mission

The Office of Radiation Protection protects and improves the health of people in Washington State by ensuring exposure to man made radiation is As Low As Reasonably Achievable. (ALARA)

**MISSION
POSSIBLE**



DOH Office of Radiation Protection (ORP) History

In 1957, ORP was formally established as part of the Air Sanitation and Radiation Protection Section, with a staff of three.

In 1961, DOH was deemed as the sole Radiation Control Agency for Washington state. (RCW 70A.388.040).

In 1966, Washington became an Agreement State with the NRC under the Atomic Energy Act of 1954 (AEA), assuming responsibility for radiation safety within the state.

In 2023, EPA designated full delegation for Air Emissions Section.

Key Points of the Agreement between NRC and WA State:

State Oversight:

- Agreement States develop their own regulatory programs provided they meet or exceed federal safety standards.

Benefits of the Agreement:

- Ensures a balance between state control and federal oversight, allowing for localized management of radioactive materials while maintaining nationwide safety standards. States have flexibility to tailor regulations based on local needs and industries.

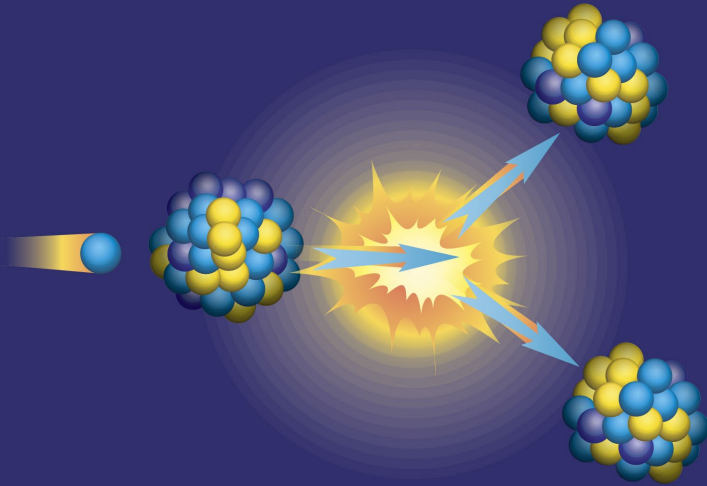
Partnership between Agreement States and NRC:

- NRC and Agreement States collaborate to share information, promote best practices, and keep the regulatory framework effective and up-to-date.

Fission vs. Fusion

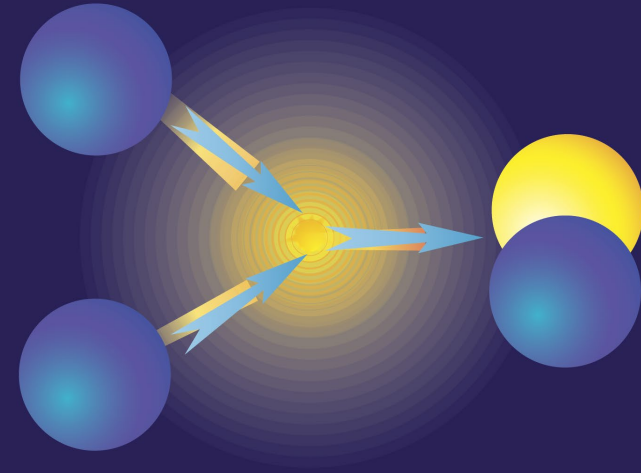
Physical processes that produce energy from atoms

FISSION



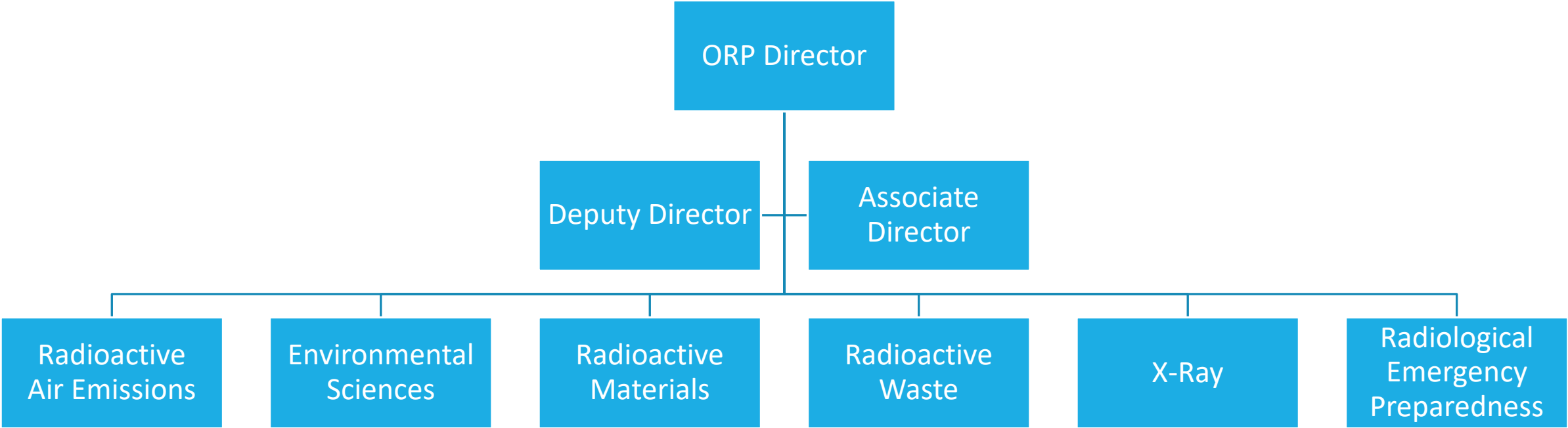
Splits a larger atom into 2 or more smaller ones.

FUSION



Joins 2 or more lighter atoms into a larger one.

DOH ORP involvement with Fusion:



Radioactive Air Emissions

Licenses and inspects all facilities with a potential to emit radioactive air emissions. Monitors and samples for levels of radiation in the air and protects the public from airborne radioactivity around the state by enforcing standards for radioactive air emissions

A major area of focus for this section is related to cleanup work on the Hanford site where plutonium was created for four decades in support of the nation's nuclear weapons program



Environmental Sciences

Monitors and samples for levels of radiation in the air, water, soils, foods, biota and direct radiation. Most samples are processed at the DOH Lab in Shoreline.

Analyzes data, reviews environmental programs, procedures and publishes QA/QC reports.



Radioactive Materials

License and regulate facilities and users of radioactive materials.

Licensees include the following facilities:

Fusion, healthcare, industrial, construction companies, and research.



Radioactive Waste Management

Licenses and regulates the commercial low-level radioactive waste disposal site on the Hanford site operated by Republic Services, the radioactive mixed waste processing site, mineral processors, and the decommissioning and restoration of the uranium mill site in Ford, WA.



Inspecting radioactive waste before disposal at Republic Services

X-ray

Regulates machine-generated sources of radiation:

Human use:

Dental, radiographic, fluoroscopic, therapeutic, computed tomography (CT), mammography

Non Human

Industrial, veterinary, particle accelerators (fusion)



Radiological Emergency Preparedness

Responsible for assuring the office and agency is prepared to respond to radiological emergencies from impact assessment to risk communication.

Provides plans/procedures, training, evaluated exercises, and coordinates response.

(206) NUCLEAR is the 24-hour emergency notification line.



Process for new fusion facilities to work with ORP:

How to get a license:

Air Emissions: Submit an application outlining facility emissions.

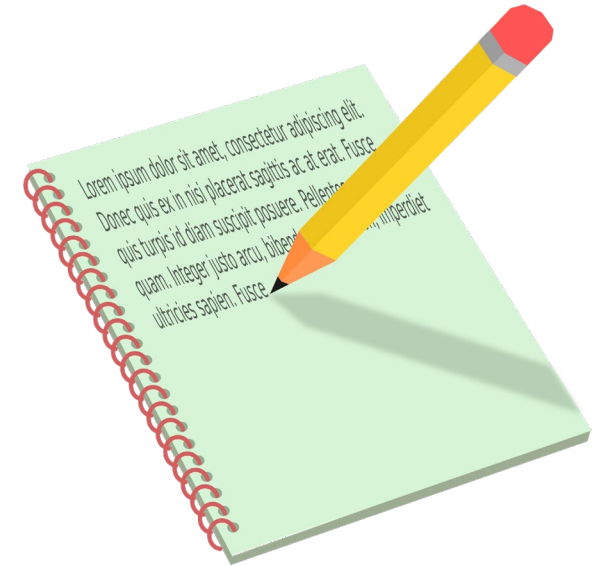
Radioactive Materials: Submit an application for a specific radioactive materials license

How to register:

Submit for X-ray Registration

Submit radiation shielding design plans for review

Submit radiation safety policies and procedures for review.



DOH Licenses and Registrations:

Operating Licenses, registration and shielding plan approval identifies the conditions and limitations of facility operation. Including radionuclide quantities, emission limits, public dose limits, and environmental monitoring requirements.

Public Engagement:

Once the department receives a license application, and before a license is issued to operate, DOH will submit notice to the County (or local municipality). The County will have 20 days to respond and comment, which may lead to a public hearing.

Inspection Frequency:

Inspections will be conducted prior to operations and regular inspection will occur after start up. Inspections will occur annually depending on the development of the facility.

Environmental Monitoring:

We will be conducting environmental monitoring consistent with the regulatory requirements.







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