



*Electrifying
life*

Nuclear Sustainability - Waste Management & Decommissioning Strategies

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OPG Proprietary


A cleaner, more sustainable future.

Ontario is undertaking an energy transformation. One that will help decarbonize the economy and create a brighter future in the province. The foundation of this transformation will be the nuclear industry.



All waste in our care falls under three categories of action.

Preventing

 We prevent waste before it is created.

OPG's NS division takes many actions to reduce the amount of total waste we produce.

Within every level of waste we manage we are successfully finding solutions to ensure we prevent waste from being created.


Managing

 We manage the waste in our care.

All of the waste generated by nuclear power must be effectively managed for the long term.

This action - Managing Waste - speaks to our long-term stewardship and commitment to safety. While abiding by federal and international regulations we ensure not even an ounce of waste is left unmanaged.

Harnessing

 We harness waste and by-products to make nuclear power useful beyond just generation.

Here we find the most innovative and directly beneficial of our actions. The nuclear industry has made massive leaps in creating a more circular economy. Our waste and by-products benefit many industries including: Healthcare, Food, Pharmaceuticals, Computing, and new nuclear.

Nuclear Sustainability Services

Since 1974, caring for the waste from Ontario's 20 CANDU Reactors



Western Waste Management Facility

- WWMF In service 1974
- Licensed to 2027
- L&ILW from all stations
- Bruce Power used fuel



Darlington Waste Management Facility

- DWMF In service 2005
- Licensed to 2033
- Darlington used fuel
- ILW from Refurbishment

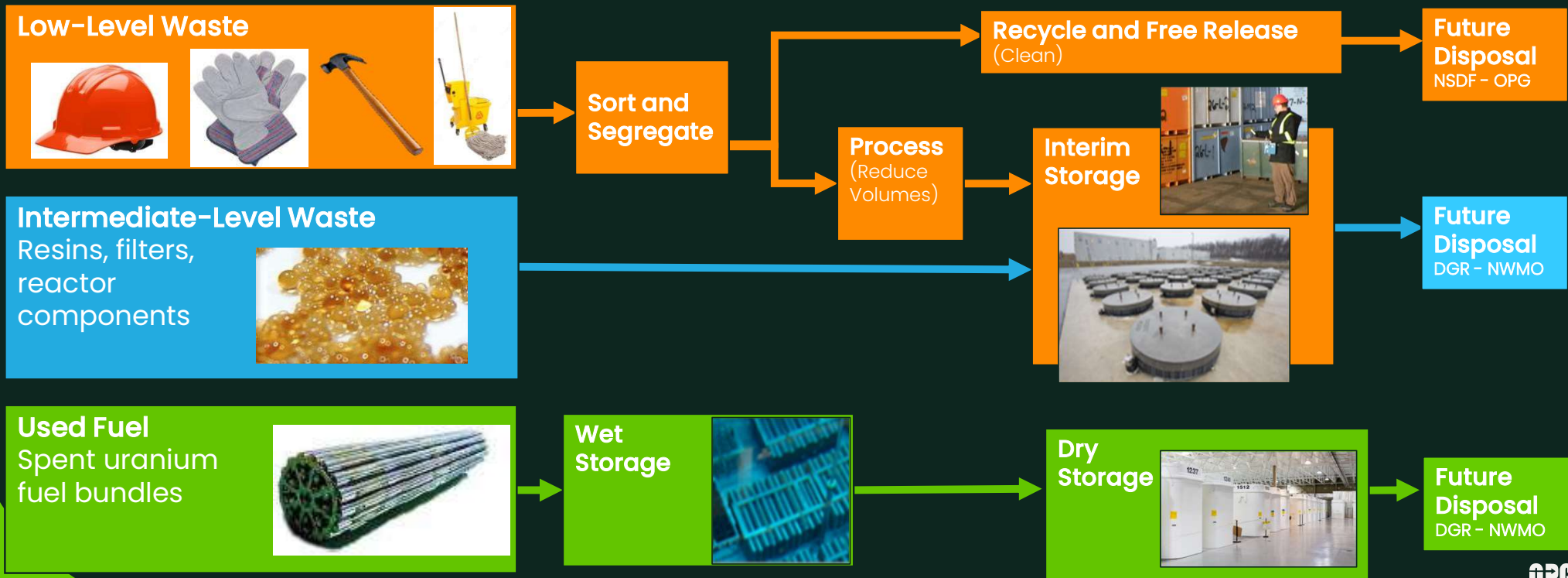


Pickering Waste Management Facility

- PWMF In service 1994
- Licensed to 2028
- Pickering used fuel
- ILW from Pickering re-tube

What We Do

- NSS leverages more than 5 decades of operational experience and expertise to minimize and store nuclear waste and plan for their permanent disposal.
- Only North American utility to handle all levels of waste, and own its own transportation fleet, incinerator & compactor.



Safety

Nuclear Safety

- Public and employee safety remains OPG's top priority.
- Safety Analysis demonstrates that public and worker dose remains within CNSC regulatory limits during normal operations, and within Safety Report acceptance criteria due to credible accidents and malfunctions.
- OPG's exemplary record of public and employee safety is supported by the Waste Management Facility Safety Report summary, available on [Reporting > Regulatory reporting - OPG](#)

Radiation Safety

Radiation Protection has four key objectives:

- Keeping individual doses below regulatory limits.
- Preventing unplanned exposures.
- Maintaining individual risk from lifetime radiation exposure at an acceptable level.
- Ensuring collective doses are As Low As Reasonably Achievable (ALARA).

Nuclear Sustainability Services – Darlington Waste Management Facility (NSS-DWMF)

Operations

- In 2024, Used Fuel from Darlington Nuclear Generating Station (DNGS) continued to be removed from the station, and stored safely and on time.
- In 2024, DWMF loaded 57 DSCs, hitting the target of 57.
- The Retube Waste Storage Building provides on-site storage in support of Darlington Refurbishment.
- Current 10-year operating licence to 2033.
- WMF performance reports available on [opg.com](https://www.opg.com).



57

Dry Storage Containers loaded and
transferred in 2024

Questions?



OPG

