

Comments on the discussion paper by Natural Resources Canada on [waste minimization](#)

By Moltex Energy

Moltex agrees with the goal of reducing the final volume and activity of waste that requires storage and long-term disposal.

The concept of waste minimization should include minimizing existing stockpiles of nuclear waste and supporting the development and deployment of technologies that generate less waste overall. It should also include technologies that reduce the volume and radiotoxicity of waste, for example by turning high-level waste into intermediate or low-level waste streams.

Moltex technology can separate large amounts of low-radioactive depleted uranium from spent CANDU fuel, significantly reducing the volume of high-level waste. The remaining high-level waste can be used to fuel Moltex's waste-burning reactor, further reducing its radiotoxicity.

Moltex believes the waste hierarchy is a logical and necessary guide to ensure the lowest possible impact of nuclear waste on the environment. Indeed, minimizing, reusing and recycling should be favoured before disposal. Waste disposal should only be considered once all other reasonable options have been exhausted.

The Government of Canada should provide funding to support Canadian technologies that have the potential to minimize, reuse or recycle nuclear waste.

The Canadian Nuclear Safety Commission (CNSC) should provide early engagement opportunities for companies developing waste minimizing technologies so that they can be reasonably assured that their technologies will be licensable. These opportunities should be provided at no cost to the companies, provided they meet basic criteria.

The CNSC Vendor Design Review (VDR) program that is currently offered only covers nuclear power plants. Vendors do not have proper mechanism to engage the CNSC on innovative waste minimization technologies, such as Moltex's WASTE To Stable Salt (WATSS) technology.

For their part, waste owners should minimize the generation of radioactive waste to the extent practicable. They should also implement Canadian waste management technologies when it is reasonable to do so.

Beyond the principles identified by the International Atomic Energy Agency, Moltex believes policy and funding mechanisms should be in place so that waste owners can fully investigate and implement new waste management technologies.