

The UAE's Radioactive Waste Management Strategy

مؤسسة الإمارات للطاقة النووية
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Barakah One Company PJSC



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The UAE's radioactive waste management strategy

- Similar to many other energy generation technologies, peaceful nuclear energy does result waste, in this case used nuclear fuel assemblies. However, nuclear produces relatively little waste compared to other sources of electricity.
- The technology for managing the used fuel exists and has been safely stored in locations around the world for decades.
- In April of 2008, the United Arab Emirates (UAE) launched its Policy on the Evaluation and Potential Development of Peaceful Nuclear Energy, which incorporates the highest international standards of safety, transparency and security.
- The UAE Government continues to work closely with the International Atomic Energy Agency (IAEA), World Association of Nuclear Operators (WANO), Institute of Nuclear Power Operations (INPO), as well as international experts and the governments of responsible nations to adopt and implement best practices for the development of a world-class peaceful nuclear energy program.
- The UAE is a signatory to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Comprehensive Nuclear-Test-Ban Treaty (CTBT), and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.
- In line with its commitments, the UAE regularly submits its national reports for review by the Joint Convention, and benefits from the knowledge and experience shared by other member states during the review meetings.
- The UAE is also a member of the IAEA Technical Working Group on Nuclear Fuel Cycle Options and Spent Fuel Management (TWG-NFCO), which is a platform for experience sharing among member states.

ENEC's spent fuel plan

- ENEC will store used fuel on-site at the plant while it cools.
- When the used fuel is cool, it will be moved to concrete and steel containers called dry casks.
- These casks can be securely stored on-site at a nuclear energy plant or at an interim or long-term storage facility.
- The site for dry cask storage at the Barakah plant has undergone several years of study and investigation to prove its suitability.
- Once ready, it will be licensed by the Federal Authority for Nuclear Regulation before it will become operational.
- Used fuel has been safely stored around the world for decades.

The UAE's long-term radioactive waste management strategy

- The UAE is in the process of developing its long-term spent fuel management policy.
- The UAE's approach to managing both fresh and used fuel is founded on the UAE's commitment to the highest international standards of safety, security, transparency, and non-proliferation, as outlined in the nation's 2008 peaceful nuclear energy policy.
- Since the inception of the UAE Peaceful Nuclear Energy Program and as part of the UAE's commitment to non-proliferation, the UAE Government decided to forgo both the domestic enrichment of uranium as well as the reprocessing of spent fuel.
- As part of developing the nation's long-term spent fuel management policy, the UAE Government is diligently reviewing several options for managing spent fuel, while at the same time implementing a comprehensive waste management system that meets the highest international standards and is in line with the regulations of the Federal Authority for Nuclear Regulation (FANR), the UAE's independent nuclear regulatory body.