

Separation of Radioisotopes

Effluent Treatment Systems

Cost Effective and Fit-to-Purpose

Turn-key solutions are custom built for targeting and removing radionuclides

Utilizing commercially available components and modular designs result in cost-effective solutions



Modular, Plug-n-Process Systems

Modular design allows the turn-key system to be fabricated and tested quickly

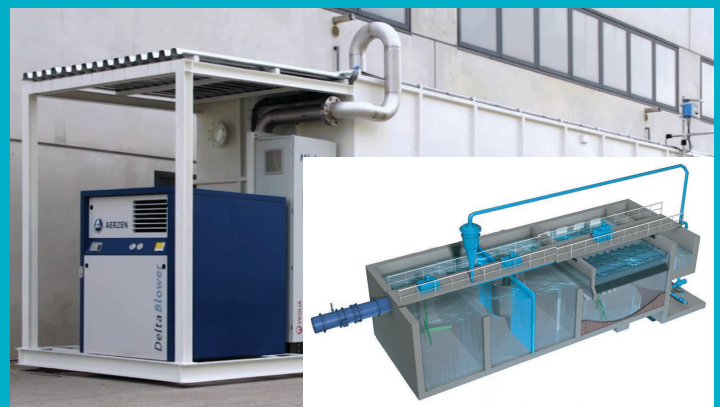
Systems are fabricated and tested offsite and delivered to anywhere in the world ready for “plug-n-process” operations



Optimized and Proven Technologies

Versatile and customer-specific solutions are based on optimized technologies available within the Veolia Nuclear Solutions organization

Veolia's cost effective, modular, and fit-to-purpose systems have been deployed and proven across the globe

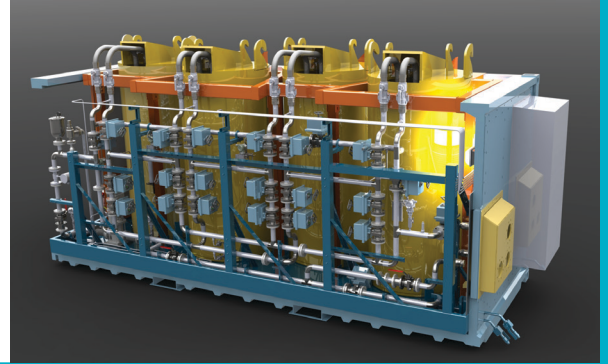


ION SPECIFIC MEDIA AND SYSTEMS

We have developed several classes of ion specific media (ISM) to selectively remove hazardous ions from aqueous waste streams.

Our ISM and accompanying systems have been utilized world-wide, providing solutions for isolating waste from the environment. ISM has been used to treat contaminants in many types of projects: groundwater remediation, nuclear fuel pools, and most recently, the Fukushima Daiichi Nuclear Power station cleanup.

We have developed media to target and remove radioactive isotopes from aqueous solutions that threaten both human health and the environment. These hazardous elements include cesium, strontium, technetium, and iodine, among others. Our inorganic media are radiation-resistant, which mitigates the stability concerns associated with organic ion exchange resins under high radiation applications. Additionally, inorganic media compositions make excellent glass waste forms when vitrified. Our ISM has low sensitivity to pH and salt water. Produced in large quantities, ISM are versatile and can be used in many remediation and water treatment systems including: ion exchange vessels, trench, low flow barriers, or porous sock filters.



ISM are uniquely robust across a wide range of operating parameters and compatible with existing nuclear power plant water purification and demineralization filtration systems. Specialty mobile systems allow ISM to be quickly deployed in remote or hazardous locations.



ISM are proprietary inorganic media used to remove undesirable ions from aqueous waste streams

Veolia offers four classes of Ion Specific Media (ISM):

- Zeolite-based material
- Titano-Silicate based media
- Phosphate-based media
- Fully synthetic specialty media for difficult projects

ISM is offered in three forms, to accommodate the needs of any project:

- Powder - batch applications
- Granular - column applications
- Spherical - specialty applications



RESEARCH AND TESTING

Our research and development laboratory is customer and application focused. We offer services to conduct treatability and help predict system performance for any client application

Contact us for more information:

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