Parker Solution

Nuclear power, as an alternate energy source, faces the challenges public and environmental safety with regard to waste storage. Current methods dispose of nuclear waste in a permanent geologic repository, requiring a seal that will be reliable over an extended period of time.

In order to seal such a critical application, Parker Composite Sealing Systems Division engineered two Integral Seal solutions for the inner and outer waste containers. The smaller container required a 5 ft inner diameter seal and the outer container required a 7 ft inner diameter seal.

Features:

- Multiple port sealing capabilities
- Flexible to conform to mating surfaces
- Maximum pressure/vacuum of 5,000 psi
- Multiple elastomeric materials can be used on one part
- Part tagging through (RFID) to track part number, manufacturing date, and first article inspection documentation

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For this application, CSS incorporated a patent pending layering technology consisting of 6 segments that when layered and compressed create a continuous seal. Another advantage to this design is no RTV is required at the segmented location.

As a value added benefit, CSS also creates customized packaging crates to protect the seals while in transit. The custom crate simplifies transportation load and storage of the parts saving the customer time and money.

Integral Seals can be custom engineered to meet the environmental and pressure sealing requirements on a wide variety of applications

**Industry Applications/Users**
- Aerospace and Military
- Oil and Gas
- Heavy Duty equipment
- Automotive
- Life Sciences
- Micro-Electronics
- Nuclear Industry

**Benefits:**
- Quick & easy installation
- Seal can be retrofitted in an application that did not plan for a sealing groove
- No RTV required at segmented location (patent pending)
- Metal to metal contact allows for no re-torque
- Can be handled and installed through automation
- Worldwide distribution network

Rubber element is chemically and/or mechanically edge bonded to the retainer.