Quality and Standards for your converted material

- Westinghouse will deliver on its promise of providing quality assurance for your company.
- We pride ourselves on our engineering expertise and technical ability working to international standards including ISO 9001, 14001 and 18001.
- Springfields has a long and successful history in the fuel cycle with over 40 years expertise in Hex conversion.

www.westinghousenuclear.com
**Meeting World Demands**

The Springfields Hex facilities are capable of producing up to 5,500 tU of (UF6) annually, meeting world demands for nuclear fuel production.

**Advanced Technology**

Both plants demonstrate proven and state-of-the-art technology. Automated handling facilities are incorporated for both product and waste streams which, when combined with secondary containment and advanced ventilation systems, lead to greatly reduced employee radiation exposure.

Equipment is supported on flexible mountings where necessary; to allow building movement and additional bracing is incorporated into the framework of the building for increased protection in the unlikely case of a seismic event.

**UF6 Production**

Springfields UF6 production is split into two key phases of its chemical conversion process. The first phase of the process occurs in the Rotary Kiln Plant converting Uranium Trioxide (UO3) into Uranium Tetrafluoride (UF4). The second phase occurs in Hex Plant, where UF4 is converted into UF6 for the production of UF6.

**Fluorination**

Uranium Hexafluoride is produced by the reaction of UF6 with elemental gaseous fluorine in a fluidised bed reactor at 479°C. The fluorine is produced by the electrolysis of anhydrous hydrofluoric acid (AHF) in a potassium bi-fluoride electrolyte.

**At the filling station** a Hex cylinder is connected to a pipeline from the condensers within a secondary containment area. Once filled the cylinders are taken out of line and heated to 90°C to allow the UF6 to be run-off as a liquid to a Hex filling station. Uncondensed gases are recycled back to the reactor.

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