



*Project Scope:* Fabrication; Mechanical & Electrical Assembly; System Integration; Set-Up & Commissioning of Gas Purification System; Leak Testing & System Testing and Documentation; ASME NQA-1.

Springs Fab provided the fabrication, assembly, and testing services in the construction of a \$15M nuclear materials handling system. This was accomplished in partnership with Merrick & Company as a design-build project under an extremely tight schedule. The system consists of two large machine tools, enclosed within five major gloveboxes, nine vertical sliding doors, four airlocks, material handling systems and complete environmental controls including system gas purification. Springs Fab was able to complete fabrication, testing, and delivery within the agreed 11-month fabrication schedule in spite of numerous system issues, attributed to close schedule management and also communication with our partner and customer.

- Fabrication of qty (5) gloveboxes, (2) hoods, (9) vertical sliding doors, (4) airlocks, trolley carts
- Fabrication of two-axis ram sealing interfaces between glovebox and lathe
- Fabrication of system piping, filter housings, and gas mixing distribution station
- Construction of a temporary mezzanine to support gas purification systems, power panels
- Assembly of all systems, including interfaces with two large lathe machine tools
- Installation of O<sub>2</sub> and He monitors, hoists, HEPA filters, piping, and pipe supports
- Installation of weigh scale, sample pumps
- Installation, commissioning of qty (3) gas purification systems
- Electrical assembly of all system wiring (power, instrumentation, power panels, transformer)
- Leak testing of all gloveboxes, airlocks, and vertical sliding doors, piping
- System leak testing
- Functional testing of hoists, pressure relief valves, gas purifiers, trolley carts
- Integrated system FAT of all equipment
- Manufactured under ASME NQA-1