| Question # | Question Submitted | ORNL Response |
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| 1 | Please confirm the total number of Modular Hot Cells to be priced. We read the RFI as design of both cell types, fabrication of one Transloading MHC, plus options for six additional Transloading and seven Processing cells, fourteen units in total. | Correct – 14 units total |
| 2 | How many chambers are envisioned per cell, and can you confirm one workstation per cell? | Each cell would have one open chamber (see internal dimensions in RFI), the transloading MHC should have an additional chamber to connect to the casks, there would be front workstation (shielded window and 2 manipulators), and we do envision a rear workstation (rear access door with an alpha window and gloves for unshielded access as well). |
| 3 | What is the reference or model of the shielded cask that will feed the transloading cell, and who is the manufacturer? Is that cask design already fixed? | Yes, cask designs are fixed. They are internal ORNL casks. |
| 4 | What are the cask dimensions and loaded mass? | They are approximately 2500 lbs., 20-inch OD, and 24-inch height. |
| 5 | Is docking top loading only, or top and side loading as the scope suggests? | The primary method of transloading is from the top of the cask (bottom of the cell). There is one cask for which we need to accommodate side loading. |
| 6 | How is the cask handled and positioned at the cell, and does the supply of that handling equipment fall inside the MHC scope? | Casks will need to approach the cell via a cart or pallet device and yes this is part of the MHC scope. |
| 7 | What process operations take place inside each cell type? We understand the transloading cell receives and transfers irradiated HFIR targets and the processing cell performs mechanical, chemical and thermal steps, but we need more detail to define feedthroughs, services and containment. | There are multiple operations, both known and unknown, performed in the process MHC. Feedthrough design needs to be customizable for multiple options. Each MHC liner is preferred to have a coating to protect the stainless steel. |
| 8 | Please confirm that design of the process equipment itself is outside the MHC scope. | Confirmed |

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| 9 | Where does the MHC scope boundary sit for ventilation and filtration, electrical, controls and automation, and fire protection? We have assumed the cell provides interfaces and ORNL provides the facility systems. | Yes, the facility will provide the support systems. The MHC scope boundary terminates at an interface external to the shield walls. |
| 10 | Is any in cell lifting equipment, such as a crane or hoist, within scope beyond the two telemanipulators? | Yes, the transloading cell requires a trolley mounted overhead crane shall be repairable and replaceable capable of lifting 1000 lbs. |
| 11 | Please confirm that automation is not required and that in cell cameras are? | Automation is not required. Any necessary in cell cameras will be added later by ORNL as part of the process design, however this capability should be easily integrated via the feedthroughs mentioned above. |
| 12 | Beyond ISO 9001 and NQA-1, which building code, DOE standards and consensus standards will apply to the MHC design? | [1]10 CFR Part 830, Subpart A, [2] DOE Order 413.3B. 2010, [3] DOE Order 425.1D. 2010, [4] DOE Order 420.1C. 2012, [5] DOE Order 414.1D. 2011, [6] DOE Standard 1189-2016. 2016, & [7] ASME NQA-1-2008/09a. |
| 13 | What leak tightness class or leak rate is required for the cell boundary, and what test method will be used for acceptance? | Per AGS standards and guidelines |
| 14 | Can the project layout drawings be provided if available? | Please reference the included pdf of Autodesk drawings from our Conceptual Design Report. Note that we are currently undergoing the next phase of facility design. |
| 15 | Do you confirm that the cells are to be supplied without filtration and with only flanged inlet/outlet piping, given that the URS documents do not mention cell ventilation but instead specify "Integration with ORNL exhaust and filtration systems."? | No, cell inlet and outlet ventilation will be filtered with HEPA. |