

**Honeywell Metropolis Works (Honeywell)
2022 Triennial Decommissioning Funding Plan (DFP) Update
Request for Additional Information
Docket Number 04003392
License Number SUB-526**

(1) Justify key assumptions in the DCE related to the disposition of inventory (10 CFR 40.36(d)(1)(i)(A); 10 CFR 40.36(d)(1)(ii); Interim Staff Guidance on Decommissioning Funding Plans for Materials Licensees).

Justification

On Page 4 of the 2022 Decommissioning Cost Estimate (DCE, Agencywide Documents Access and Management System (ADAMS) Accession Number ML22011A195), Honeywell states that “[t]he uranium inventory stored at Honeywell is customer owned and the customers are responsible for the retrieval of the material.” However, the DCE does not include the costs for the disposition of inventory present at the facility at the time of decommissioning.

Regulatory Basis

The regulations in Title 10 of the Code of Federal Regulations (10 CFR) 40.36(d)(1)(i)(A) require that the DFP provide a detailed cost estimate that reflects “the cost of...perform[ing] all decommissioning activities.” The regulations in 10 CFR 40.36(d)(1)(ii) require that the DFP identify and justify the key assumptions contained in the DCE.

The U.S. Nuclear Regulatory Commission’s “Interim Staff Guidance on Decommissioning Funding Plans for Materials Licensees,” dated June 2019 (ADAMS Accession Number ML19079A314) describes ways in which the disposition of multiple types of inventory can be covered in the DCE, including licensee-owned, customer-owned, and inventory in-process. For customer-owned inventory, the guidance states that a reasonable alternative to including the costs for packaging, loading, and transporting the material to another facility that can accept the material under its license “may be an existing contract under which the customer is responsible for packing, loading and shipping the material to an end destination that can accept the material under the end destination’s license.”

Request

Provide confirmation that customer contracts specify that the customers are responsible for the disposition of inventory. If this is not the case, include costs for disposition of customer owned inventory in the DCE.

(2) Update the basis for cost estimates in the DCE (10 CFR 40.36(d)(1)(ii); NUREG-1757, Vol. 3, Rev. 1, Appendix A, Section A.3).

Justification

The 2022 DCE does not provide an adequate basis for the following costs:

a. Equipment Costs

The 2022 DCE does not provide an adequate basis for equipment costs (including UCF equipment, UCF consumables, LOE materials, and UCF materials). Appendix A-4 (Equipment Summary) provides a list of equipment costs per WBS line item but does not identify unit costs or the quantity of equipment needed. Honeywell’s March 24, 2022, responses to the NRC’s

Request for Supplemental Information (ADAMS Accession No. ML22088A057) state that “equipment rates were added to the DCE as Appendix A-5.” These equipment rates were provided per day. However, using the activity durations provided in Appendix A-1 (Cost Estimate Summary), the NRC staff is not able to recalculate the equipment costs presented in Appendix A-4 (Equipment Summary). This is likely because not every piece of equipment will need to be used for the entirety of the activity duration, and so additional information is needed to confirm the adequacy of the equipment cost estimates.

Additionally, compared to the 2019 DCE, equipment costs have increased significantly, from about \$1,572,276 to \$5,441,070.

b. Miscellaneous Non-Labor Costs

Several cost elements (i.e., NRC quarterly inspections, security, taxes, and insurance) are provided as annual costs that will be required throughout the duration of decommissioning. On page 6 of the 2022 DCE (ADAMS Accession No. ML22088A069), Honeywell states that “[t]he total duration of the MTW decommissioning project remains unchanged from the previous version submittal at 10.25 years.” However, using a duration of 10.25 years does not result in Honeywell’s calculated total costs for the miscellaneous non-labor costs of \$ 31,912,340 (see table below).

Annual Cost Component	Cost
(a) Security	\$ 1,000,000
(b) Taxes	\$ 615,000
(c) Insurance	\$ 1,950,000
(d) NRC quarterly inspection	\$ 92,160
(e) NRC review of the decommissioning plan (one-time cost)	\$ 115,200
Calculated Annual Subtotal (a+b+c+d)	\$ 3,657,160
Honeywell’s Calculated Total @ 10.25 years: [(a+b+c+d) x (10.25 years)] + (e) [taxes @ \$615,000/yr.]	\$ 37,601,090
Total provided by Honeywell in DCE	\$ 31,912,340
Calculated Annual Subtotal (a+b+c+d) [NRC staff calculated with taxes @ \$60,000/yr.]	\$ 3,102,160
NRC’s Calculated Total @ 10.25 years: [(a+b+c+d) x (10.25 years)] + (e)]	\$ 31,912,340
Difference between NRC staff’s Calculated Annual Subtotal and value provided by Honeywell in the DCE	\$ 5,688,750 (i.e., \$ 37,601,090 – \$ 31,912,340)

The NRC staff noticed that Honeywell’s estimated annual tax rate between the 2019 and 2022 DCEs appear to be inconsistent. In the 2019 DCE Honeywell stated that this cost was \$60,000.00/yr but, in the 2022 DCE it states that this cost is \$615,000.00. If the annual taxes cost on the table above is revised accordingly (i.e., from \$615,000.00 to \$60,000.00), then the calculated annual subtotal [(a+b+c+d) is \$3,102,160.00. This will bring the total miscellaneous non-labor costs to \$31,912,340.00 in 10.25 years as stated by Honeywell in its 2022 DCE. This would then be consistent with the NRC staff’s calculated costs.

c. Subcontract Costs

The 2022 DCE does not provide an adequate basis for subcontract costs. Appendix A-1 (Cost Estimate Summary) provides the total cost for two subcontracts (asbestos removal and disposal and FSS surveys and samples) but does not identify the source of the subcontract costs or otherwise describe the unit costs or other information used in calculating these costs.

d. Travel and Living Costs

The 2022 DCE does not provide an adequate basis for travel and living costs. On page 3 of the DCE, Honeywell states that “[t]ravel and living costs in this revision are applied to 50 percent of the field workforce,” that, “previously, the travel and living costs were applied to the entire workforce,” and that “the local workforce is therefore assumed to staff half of the required labor force for decommissioning.” However, in its January 29, 2020, response to the NRC’s request for additional information (ADAMS Accession No. ML20031D598), Honeywell stated that “[t]he cost estimate assumes 50 percent of the on-site personnel are not local and will receive travel and living allowance throughout the project duration.” This suggests the same approach was used in both the 2019 and 2022 DCE, yet the total travel and living costs have decreased significantly, from \$6,138,495 in 2019, to \$1,234,598 in 2022. Furthermore, on page 5 of the 2019 DCE (ADAMS Accession No. ML20157A184), Honeywell specifies that the weekly cost per person for lodging is \$643.52 and the weekly cost per person for meals and incidental expenses is \$385. This sums to \$1,028.52 per person per week, or \$146.93 per person per workday. The 2022 DCE specifies that the cost is \$180.00 per person per workday (Page 6 of revised 2022 DCE), indicating that the unit cost is not the reason for the large decrease in total cost.

e. Internally Developed Cost Estimates

On page 2 of the revised 2022 DCE, Honeywell states that “[d]ata published on the RS Means online application was used as reference to provide appropriate labor, equipment and production rate cost basis for decontamination and demolition activities, when available,” and lists the 2021 version of RS Means as a reference. Honeywell further states that “[w]hen published labor, equipment, and production rates were not available, such as for specialized operations and/or technical labor, internal costs were developed and used.” However, the 2022 DCE does not sufficiently identify or provide an adequate basis for internally developed cost estimates, does not make it clear whether the internally developed cost estimates were updated to 2021 dollars, nor clearly identifies which unit costs are based on internally developed cost estimates. Similarly, a basis is not provided for certain miscellaneous non-labor costs, including taxes, security, and insurance (discussed above), and the DCE does not make clear if these costs were updated to 2021 dollars.

Regulatory Basis

The requirements in 10 CFR 40.36(d)(1)(ii) state that a DFP must contain “[i]dentification of and justification for using the key assumptions contained in the DCE.”

The guidance in Appendix A, Section A.3.1, of NUREG-1757, Vol. 3, “Financial Assurance, Recordkeeping, and Timeliness,” Rev. 1 (ADAMS Accession No. ML12048A683), states that a “decommissioning estimate should contain a substantial level of detail, consistent with the guidance presented in this section, to allow the NRC to fully evaluate the adequacy of the estimate” and that “[t]he labor estimates, material costs, and other factors of the cost estimate should have a clear and reasonable basis.” In addition to specifying that the cost estimate

should “have a clear and reasonable basis,” the guidance in NUREG-1757, Vol. 3, Rev.1, Appendix A, Section A.3.2, states that, “[i]n general, cost estimates should be updated with the current prices of goods and services at least every 3 years or when the amounts or types of material at the facility change.”

Request

To ensure that adequate funding is available at the time of decommissioning, provide the following:

a. Equipment Costs

Provide additional information about the break-down of equipment costs, specifically the duration of use of each equipment type for each task, consistent with the equipment/supply cost tables included in NUREG-1757, Vol. 3, Rev. 1, Appendix A, Section A.3.15. In addition, provide a justification for the increase in equipment costs in order to understand the approach to calculating equipment costs when reviewing future DCEs.

b. Miscellaneous Non-Labor Costs

Clarify the inconsistencies between Honeywell’s and the NRC staff’s calculated costs and revise the DCE as appropriate. In addition, specify the basis for each estimated cost and whether these have been updated to 2021 dollars.

c. Subcontract Costs

Provide additional information about the source and break-down of subcontract costs.

d. Travel and Living Costs

Provide additional information about the break-down of travel and living costs, and specifically, provide justification for the large decrease in total travel and living expenses.

e. Internally Developed Cost Estimates

Provide additional information about the basis for each of the internally developed costs, including clearly identifying which unit costs are based on internally developed cost estimates. Specify the basis for each estimated cost and whether these have been updated to 2021 dollars.

(3) Provide more detail on waste transportation costs (10 CFR 40.36(d)(1)(i)(A); NUREG-1757, Vol. 3, Rev. 1, Section 4.1).

Justification

Honeywell’s 2019 DCE includes costs for radioactive soil and rubble disposal at Energy Solutions of Utah and waste transportation to US Ecology, including asbestos. Both of these costs are provided per pound and per gondola car and are included appropriately in the 2022 DCE. However, the 2019 DCE also includes a cost for waste transportation to Energy Solutions of Utah of \$4.30/mile. This cost does not appear to be included in the 2022 DCE and no justification is provided by the licensee for excluding it.

Regulatory Basis

The regulations in 10 CFR 40.36(d)(1)(i)(A) require that the DFP contain a “detailed cost estimate for decommissioning, in an amount reflecting: (A) the cost of an independent contractor to perform all decommissioning activities” (emphasis added). The guidance in NUREG-1757, Vol. 3, Rev. 1, Section 4.1, states that “[t]he cost estimate includes costs for all major decommissioning and site control and maintenance activities specified in Section A.3 of Appendix A to this volume, including ...(c) packaging, shipment, and disposal of radioactive wastes...”

Request

Justify why the 2022 DCE does not include a cost for waste transportation to Energy Solutions of Utah. If it does, then explain how it is incorporated into the 2022 DCE.