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ATTN: Document Control Desk  
Director, Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Docket No. 40-3392  
License No. SUB-526

**RE: Honeywell Metropolis Works Responses to NRC Request for Supplemental Information on the Triennial Update to Decommissioning Funding Plan**

Pursuant to License Condition 25 and 10 CFR 40.36(d), Honeywell International Inc. (Honeywell) provided an updated Decommissioning Funding Plan (DFP) to the NRC on January 6, 2019. During the NRC acceptance review of the DFP, the NRC decided that more information was needed before the acceptance review could be completed. In order to obtain the information needed to perform the acceptance review, the NRC submitted a Request for Supplemental Information (RSIs) on April 24, 2019.

Enclosure 1 provides the Honeywell responses to the NRCs RSIs.

Should you have any questions on the enclosed information, please contact Sean Patterson, Regulatory Affairs Manager, at 618-524-6341

Sincerely

Jon Price,  
Acting Plant Manager

Enclosures:

1. Response to the NRC RSIs on the DFP

Cc: U.S. NRC  
Attention: David Tiktinski  
11555 Rockville Pike  
Rockville, MD 20852

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NM55

**MTW RESPONSE TO THE NRC REQUEST FOR SUPPLEMENTAL INFORMATION  
RELATED TO HONEYWELL METROPOLIS WORKS TRIENNIAL DECOMMISSIONING  
FUNDING PLAN.**

Additional information is needed describing the changes to the new cost estimate over the previous 2015 cost estimate. Both estimates were prepared by the same entity. The 2019 submittal has significantly less detail than the 2015 cost estimate. Additionally, the 2019 cost estimate is over \$60 million less than the 2015 cost estimate. The "Waste Process & Transport" costs column (significant cost) included in the 2015 "Table 4-1: Decommissioning Cost Summary — Honeywell MTVV Facility" is not included in the comparable "Table 4-1. Decommissioning Cost Summary — Honeywell Facility" included in the 2019 DCE. As another example, the total decommissioning costs associated with "Outdoor Areas, Drains, and Sewers" has increased by millions of dollars. Based on the acceptance review, the approach to producing the 2019 cost estimate is likely materially different than that used for the 2015 DCE. However, unlike the 2015 DCE, which included a concise list of modification and/or adjustments in the methodology utilized in the cost estimate compared to the previous triennial update, the 2019 DCE does not appear to include such a description. 10 CFR 40.36(d)(2) requires the licensee to address 8 factors. Additional information is still needed regarding the following factors:

- Waste inventory increases.

The 2019 DCE includes a detailed appendix summarizing waste volumes (Appendix A-3 Waste Volume Summary). No narrative description is provided comparing the waste inventory described in the 2019 DCE to the waste inventory described in the 2015 DCE. Such a comparison is likely to require a significant effort because the waste inventories are presented in different formats and are provided in different units (2019 waste inventory estimates are based on pounds and 2016 waste inventory estimates are based on cubic feet). The licensee should provide a narrative discussion comparing the waste inventory in the 2019 DCE with that from the 2015 DCE.

**MTW Response to Waste Inventory Increases:**

The data presented in Table 4-1 of the 2015 DCE was based on the initial Duratek DCE conducted in 2006 and subsequently updated in compliance with NUREG-1307 in 2009, 2012 and 2015. It was recognized that continued updates of the DCE using the 2006 DCE as a basis was not ideal and the NRC requested a full re-costing of the DCE after the submittal of the 2015 DCE. The 2018 Decommissioning Cost Estimate (DCE), a building by building, structure by structure, evaluation was performed consisting of a full site walkdown by a review team consisting of experienced decommissioning and waste handling Subject Matter Experts (SME). The review team developed the information in the 2018 DCE utilizing site observations and information provided by Honeywell. The equipment waste volumes in buildings, structures, and areas were determined through visual observation by an engineer experienced in decommissioning cost estimate preparation and an experienced radioactive waste estimator. The building volume of

waste materials were estimated by applying the building dimensions and knowledge of the materials of the building from the site walkdowns. This evaluation reflected the 2018 approach to decommissioning instead of continuing to update the original that formed the basis of the previous DCEs.

For example, previous DCE's anticipated loading the materials into B-25's or similar containers on site. Transporting these containers to a volume reduction facility via trucks for evaluation and repackaging as necessary and transported to the materials final location based on the evaluation. This component of the 2015 DCE is presented in Table 4-1 in the column titled "Waste Process & Transport".

For the 2018 DCE, it is anticipated that waste material will be loaded directly into rail cars and transported directly to either US Ecology or Energy Solutions with no volume reduction. This revised approach was determined to be preferred based on Honeywell's process knowledge of competitive bulk disposal rates in effect and associated manpower and equipment efficiencies. As a result, the column titled "Waste Process & Transport" is not needed and was eliminated from the 2018 Table 4-1. In addition, the column previously titled "Radwaste Ship & Disposal", was re-titled "Waste Disposal" in the 2018 DCE. No revision to the 2018 Table 4-1 is required.

The removal of asbestos containing products from the plant were also included in the 2015 DCE. The estimate of asbestos waste volume in the 2018 DCE was provided by a certified asbestos removal contractor and was verified by Honeywell's asbestos inventory. Additionally, soil volumes from a 2009 Subsoils Characterization and a percentage of material from the landfill and kick back area was also added to the 2018 DCE. The waste volume associated with these items were not previously included in earlier DCEs.

The approach utilized in the 2018 DCE resulted in higher waste volumes, but lower manhour and processing effort.

- Waste disposal costs increases.

The 2019 DCE identifies 2018 disposal costs for waste disposal at Energy Solutions and US Ecology (Page 22 of the DCE). No narrative description is provided comparing the waste disposal costs utilized in the 2019 DCE to the waste disposal costs utilized in the 2015 DCE. A more detailed evaluation will be performed during the full review of the DFP to determine how the waste disposal costs in the 2019 DCE compares to the waste disposal costs in the 2015 DCE. Based on an initial review, a new approach to calculating waste disposal costs appears to be utilized in the 2019 DCE as compared to the 2015 DCE. The licensee should provide a narrative discussion comparing the waste disposal costs utilized in the 2019 DCE with that from the 2015 DCE.

**MTW Response to Waste Disposal Cost Increases:**

Disposal costs presented in the 2015 DCE were based on a decommissioning strategy consisting of Bulk Survey for Release (BSFR) used in combination with direct

containerized waste shipping and disposal. The availability of bulk waste disposal rates allowed a strategy change from sort, segregate, containerization on site and transport to a second facility for evaluation; to a strategy based on the bulk loading of railcars on site for direct transport to the appropriate disposal vendor. Therefore, disposal costs presented in the 2018 DCE are based on a decommissioning strategy consisting of direct bulk shipping and disposal. As noted above, the approach utilized in the 2018 DCE resulted in higher waste volumes, but lower manhour and processing effort along with elimination of transportation to an intermediate facility.

Using the revised and updated waste volumes as described the MTW response to "Waste Inventory Increases", waste volume disposal costs were estimated using Honeywell's current disposal costs for US Ecology (\$0.24 per pound) and EnergySolutions (\$1.47 per pound) which are lower in the 2018 DCE than the costs in the 2015 DCE. Selection of waste volumes to be directed to each disposal facility was based on Honeywell's knowledge of the plant processes that allowed allocation of the waste stream to the appropriate disposal facility.

- Actual remediation costs that exceed the previous cost estimate.

The 2019 DFP does not contain a narrative describing any actual remediation costs that exceeded the previous cost estimate. The licensee should provide an affirmative response to whether actual remediation costs have been incurred that exceed the previous cost estimate.

**MTW Response to Actual Remediation Costs that Exceeded the Previous Cost Estimate:**

MTW has not incurred any remediation costs that have exceeded the previous cost estimate. MTW did remove the buildings and equipment associated with the production of SF6 since the submittal of the previous update to the DCE. The disposal costs of the material totaled \$569,692.00, which is consistent with the pricing used in the 2018 DCE.

Additional information is also needed on the following topics:

- The submittal does not include a discussion of the disposition of inventory or identify why this is not applicable to this facility. The licensee should identify how it would disposition any remaining inventory when operations stop or indicate why this is not applicable, see the DCE Reflecting Current Facility Conditions section of Draft Interim Staff Guidance on Decommissioning Funding Plans for Materials Licensees (June 2018) (ML 1 8163A087).

**MTW Response Regarding the Disposition of Inventory:**

Uranium inventory disposition is a licensed operation that must be performed prior to declaring, per 10 CFR 40.42 (d) that a licensee has permanently ceased principal activities. MTW would not plan on ceasing activities and enter a decommissioning phase and cannot attempt to terminate the license until the inventory quantities of licensed material is removed from the site.

10 CFR 40.42 provides conditions when decommissioning begins at a site, i.e., a licensee has decided to permanently cease operations or no principal activities under the license have been conducted for a period of 24 months. If either of these are met, the "licensee shall provide notification to the NRC in writing and either begin decommissioning its site, or any separate building or outdoor area that contains residual radioactivity, so that the building or outdoor area is suitable for release in accordance with NRC requirements, or submit within 12 months of notification a decommissioning plan, if required by paragraph (g)(1) of this section, and begin decommissioning."

At the MTW, Source Material (SM) inventory consists of feed stock material, in process material, recovery material and finished goods material. These types of materials are not waste, contamination, or residual radioactivity but rather inventory that will be or has been used during normal operations. Their movement, packing and off-site shipment are principal licensed activities. Current SM material is owned by MTW customers, is of significant value, and will be utilized as part of normal licensed processes or transferred for use at another facility prior to commencing decommissioning. The MTW UF6 processes can be emptied of SM inventory in a timely manner and produce a form of material that can be removed from the site under arrangements that fall under principal licensed activities.

Based on the above, MTW assumes that all the inventory has been dispositioned and removed from the plant site prior to the start of decommissioning. Therefore, the costs of removing inventory from the site was not considered in any of the cost estimates. MTW current contracts require that the customer is responsible for packing, loading, and shipping the material to their NRC controlled site.

- The submittal does not identify the source for the labor costs. In Table 4-3 "Decommissioning Estimate Selected Unit Cost Factors," the submission lists "Select 2018-unit cost rates," which the submission describes as "prevailing rates." Among the unit costs provided are various labor rates. However, the submission does not appear to identify the source of the labor rates. Additionally, the submission states that "Non-local contractors will be utilized for all aspects of the decommissioning process. Travel and Living expenses are included for all project management, supervisors, and craft support." However, no further detail is provided describing how travel and living expenses are incorporated into the cost estimate. The requirements in 10 CFR (d)(1)(ii) state that a DFP must contain "identification of and justification for using the key assumptions contained in the DCE." In addition, NUREG-1757, Volume 3, Rev. 1, Appendix A, Section A.3.1.2.1, states that "the source for the labor costs should be

described in sufficient detail to allow the NRC staff to confirm them." To ensure adequate funds are provided for decommissioning, the licensee should provide the source for the labor rates relied on in the DFP and additional detail describing how the cost estimate accounts for travel and living expenses.

**MTW Response to Identify the Source for Labor Costs:**

Labor costs for the 2018 DCE were determined by the site review team by first establishing the likely approach to demolition to be utilized. Based on the selected approach to demolition; the required equipment, manpower and durations necessary for removal of the equipment and building demolition or scabbling of concrete pads and moving waste directly to the gondola cars was developed.

Estimates for labor costs were developed using two different methods, one for craft labor categories and one for non-craft labor categories. Labor costs for craft labor categories (equipment operators, foreman, laborers, etc.) were sourced from R S Means (2018). It was assumed that the craft labor would be local to the site and no per diem was included in the labor cost. Labor costs for non-craft labor (engineers, geologists, project management, etc.) were sourced from industry knowledge of prevailing rates for personnel experienced in facility decommissioning. It was assumed that experienced non-craft labor is not readily locally, so per diem rates were applied to non-craft labor categories based on 2018 GSA per diem rates for the continental United States.

- The submittal does not provide an adequate basis for the "Equipment, Supplies, & Subcontracts" costs (a total of approximately \$[REDACTED] million in Table 4-1 , "Decommissioning Cost Summary — Honeywell Facility"). Appendix A-2, "Cost Summary" provides an itemized list of costs, including costs for equipment and subcontracts. However, no narrative description of the basis for these costs or the source of these costs is provided. The requirements in 10 CFR 40.36(d)(1 )(ii) state that a DFP must contain "identification of and justification for using the key assumptions contained in the DCE." In addition, NUREG-1757, Volume 3, Rev. 1, Appendix A, Section A.3.1 states that a "decommissioning estimate should contain a substantial level of detail, consistent with the guidance presented in this section, to allow the [U.S. Nuclear Regulatory Commission] to fully evaluate the adequacy of the estimate" and that "the labor estimates, material costs, and other factors of the cost estimate should have a clear and reasonable basis." To ensure adequate funds are provided for decommissioning, the licensee should submit additional detail on the basis for the "Equipment, Supplies, & Subcontracts" costs.

**MTW Response for Equipment, Supplies and Subcontracts Costs:**

Equipment costs for the 2018 DCE were determined by the site review team by first establishing the likely approach to demolition to be utilized. Based on the selected approach to demolition; the required equipment, manpower and durations necessary for

removal of the equipment and building demolition or scabbling of concrete pads and moving waste directly to the gondola cars was developed. No additional handling is expected and transportation to the railcars is part of the demolition task.

The source of the costs for equipment were 2018 RS Means. Regionally developed equipment costs were selected in lieu of updating costs originally developed in 2006 DCE.

One subcontract is included in the 2018 DCE for the Asbestos Removal. This work is assumed to be provided by a Certified Asbestos removal contractor.