



Department of Energy
Under Secretary for Nuclear Security
Administrator, National Nuclear Security Administration
Washington, DC 20585



November 7, 2022

Mr. Eric Wollerman
President
Honeywell Federal Manufacturing & Technologies, LLC
14520 Botts Road
Kansas City, Missouri 64147

WCO-2022-01

Dear Mr. Wollerman:

On June 14, 2021, at the Kansas City National Security Campus, while troubleshooting a nitrogen-inerted Remstar Shuttle® XP500 (a vertical lift module storage system) from outside the equipment, a maintenance employee removed the side panel, lost consciousness due to oxygen deprivation, and fell backwards striking their head and neck on a rolling cart. Honeywell Federal Manufacturing & Technologies, LLC (Honeywell FM&T) implemented several measures immediately following the incident and initiated a root cause investigation. Honeywell FM&T's subsequent root cause analysis outlined several additional weaknesses related to the event and identified corrective actions to address those weaknesses. Honeywell FM&T documented noncompliances revealed by this event in the Department of Energy's (DOE) Noncompliance Tracking System under report NTS-NA-KCFO-HFMT-NSCKC-2021-0010307, dated October 15, 2021.

The DOE Office of Enterprise Assessments, Office of Enforcement, completed its investigation into the facts and circumstances associated with the nitrogen asphyxiation event in April 2022. As a result of the investigation, the Office of Enforcement continues to have concerns related to appropriate identification or assessment of the hazards related to occupational exposures to inert atmospheres, particularly regarding maintenance activities on the storage systems.

The DOE Office of Enforcement and the National Nuclear Security Administration (NNSA) have elected to resolve any potential noncompliances with requirements enforceable under 10 C.F.R. Part 851, *Worker Safety and Health Program*, and other concerns referenced above, through execution of a Consent Order in accordance with 10 C.F.R. § 851.41, *Settlement*. In deciding to enter into this Consent Order, NNSA placed considerable weight on Honeywell FM&T's willingness to engage in open and honest communication during the investigation and the growing and changing workforce at the new KCNSC facility.

DOE reserves the right to re-open this investigation if DOE later becomes aware that Honeywell FM&T provided any false or materially inaccurate information. Further, if there is a recurrence of worker safety and health deficiencies similar to those identified in this Consent Order, or a failure to comply with the terms and conditions prescribed in the Consent Order (or other related

actions that Honeywell FM&T subsequently determines to be necessary) to prevent recurrence of the identified issues, the Office of Enforcement may pursue additional enforcement activity. The Office of Enforcement; NNSA Office of Environment, Safety and Health; and Kansas City Field Office (KCFO) will continue to closely monitor Honeywell FM&T's implementation of worker safety and health requirements until the issues associated with this Consent Order are fully resolved.

Enclosed please find a signed copy of the Consent Order. Please sign the Consent Order and retain a copy for your records. Please return the signed copy to the Office of Enforcement within 1 week from the date of receipt. Please follow all instructions specified in the enclosure. By signing this Consent Order, you agree to comply with all of the terms specified in section IV of the Consent Order and in the manner prescribed therein.

If you have any questions concerning this Consent Order, please contact Ms. Shannon Holman, Office of Worker Safety and Health Enforcement, at (301) 903-0100.

Sincerely,



Jill Hruby
Under Secretary for Nuclear Security
Administrator, NNSA



Anthony C. Pierpoint
Director
Office of Enforcement
Office of Enterprise Assessments

Enclosure: Consent Order (WCO-2022-01)

cc: Jeff Shoulta, KCFO
Chad Stotler, Honeywell FM&T

In a letter dated April 26, 2022, to the Office of Enforcement, Honeywell FM&T requested a Consent Order to settle the matter under investigation. The settlement request outlined the measures Honeywell FM&T implemented across the larger Honeywell Aerospace organization, including:

- A maintenance department stand-down on all three shifts;
- A Health, Safety and Environment (HS&E) Gemba Walk of all Remstars;
- An updated Work Order process to include proper hazards;
- A quick action alert sent to all applicable Honeywell Aerospace facilities;
- A complete and detailed Root Cause Analysis; and
- The creation of a cross functional team that developed specific procedures, warnings, and training for employees working on inert gas-filled equipment to ensure inert gases are safely dissipated prior to employees performing work.

Honeywell FM&T's root cause analysis outlined several additional weaknesses and associated corrective actions related to this incident. While each of these corrective actions have been completed, the Office of Enforcement has concerns with the implementation of Honeywell FM&T's WSHP requirements, specifically:

- Honeywell FM&T did not use its Management of Change (MOC) program to identify and analyze the hazards of creating and potentially exposing workers to an immediately dangerous to life or health (IDLH) oxygen-deficient atmosphere when adding an asphyxiant/inert gas (i.e., nitrogen) into the Remstars. Consequently, Honeywell FM&T did not develop controls to mitigate exposure to IDLH hazards. [Section 3.1.2.2 – Management of Change (MOC) (Honeywell HSEPS 1-106-X: Management of Change)]
- Honeywell FM&T did not document industrial hygiene exposure assessments (e.g., initial/baseline and change in process) for operations and maintenance personnel working in proximity to nitrogen-inerted Remstars. (Section 3.1.2.3 – Exposure Assessments)
- Honeywell FM&T did not develop an appropriate hazard analysis or work planning document to determine hazard abatement requirements for non-routine tasks associated with the Remstars containing a potential IDLH atmosphere. [Section 4.2 – Competence (ISO Section 7.2) (Honeywell HSEPS 1-109-X: Competence, Training, and Awareness)]
- Honeywell FM&T did not appropriately train employees on the respiratory hazards of inert atmospheres. (Section 4.3 – Training and Awareness)
- Honeywell FM&T did not appropriately resolve formal HS&E feedback and improvement as required by Honeywell FM&T's hazard alert process (i.e., Good Catch program). Two previous Good Catch investigations into potential IDLH conditions did not result in an appropriate hazard assessment or abatement plan for Remstars. (Section 5.1.3.5 – Feedback and Improvement)

III

Pursuant to 10 C.F.R. § 851.41, *Settlement*, at any time during enforcement proceedings, DOE may resolve any or all outstanding issues with a Consent Order if the settlement is consistent with the objectives of the Atomic Energy Act of 1954, as amended, and worker safety and health requirements enforceable under 10 C.F.R. Part 851, *Worker Safety and Health Program*.

To resolve potential noncompliances of worker safety and health requirements, the Office of Enforcement's concerns listed above, and in consideration of Honeywell FM&T's investigation, causal analyses, and associated corrective actions taken since the submission of the NTS reports identified above, which the Office of Enforcement and DOE/NNSA found to be comprehensive and appropriate, the Office of Enforcement and DOE/NNSA have agreed to enter into this settlement. The Office of Enforcement, DOE/NNSA, and Honeywell FM&T have reached agreement to resolve this matter through execution of this Consent Order.

IV

Accordingly, the terms of this Consent Order are as follows:

In consideration of the mutual agreements set forth in this section, the sufficiency and adequacy of which are acknowledged by the Office of Enforcement, DOE/NNSA, and Honeywell FM&T (hereinafter the "Parties"), the following terms represent agreement by the authorized representatives of the Parties to resolve by settlement the potential noncompliances at KCNSC, in lieu of an enforcement action that DOE/NNSA may take pursuant to 10 C.F.R. § 851.42, *Preliminary notice of violation*.

1. Honeywell FM&T shall complete the following actions by June 30, 2024:
 - a. Evaluate operations, procedures, and facilities to identify all Remstars with the potential for inert atmosphere conditions (e.g., Remstars with existing nitrogen supply lines available), regardless of operational status.
 - b. Perform and document exposure assessments of asphyxiants used in Remstar operations and follow recognized exposure assessment and testing methodologies. Exposure assessments must include, but are not limited to, a reasonable estimate of potential employee exposures to asphyxiants associated with the Remstars, and the chemical and physical form of asphyxiants. [NOTE: If it is not possible to reasonably estimate employee exposure, then consider the atmosphere IDLH and use appropriate respiratory protection (i.e., full facepiece pressure demand self-contained breathing apparatus, or a combination full facepiece pressure demand supplied-air respirator with auxiliary self-contained air supply) as part of the exposure assessment to ensure life safety of the exposure assessor(s).]
 - c. Implement effective controls based on exposure assessment findings for maintenance and operations activities on Remstars containing inert atmospheres.
 - d. Conduct a review of the MOC program and Good Catch program to ensure that both programs appropriately identify, and address hazards related to proposed changes and/or

- reported safety and health concerns. This includes, but is not limited to, ensuring that the responsible Honeywell FM&T personnel (i.e., HS&E) adequately resolve changes and concerns that impact worker safety and health.
- e. Provide appropriate training to workers exposed to, or potentially exposed to, inert/potential IDLH atmospheres.
 - f. Provide written updates to the Office of Enforcement, Associate Administrator for Environment, Safety, and Health (NA-ESH), and Kansas City Field Office (KCFO) on the status of corrective actions or associated milestones for items 1a., 1b., 1c., 1d., and 1e., above.
 - g. Notify the Office of Enforcement, NA-ESH, and KCFO, in writing, of any corrective action(s) requiring an extension at least 30 calendar days before the prescribed due date.
 - h. Notify the Office of Enforcement, NA-ESH, and KCFO upon completion of all actions specified in the Corrective Action Plans (see items 1a., 1b., 1c., 1d., and 1e., above).
 - i. Conduct effectiveness reviews for 1a., 1b., 1c., 1d., and 1e., above, by the specified due date in the plan. Provide the Office of Enforcement, NA-ESH, and KCFO with copies of the results of any relevant effectiveness reviews within 30 calendar days of completion.
2. In lieu of taking an enforcement action pursuant to 10 C.F.R. §§ 851.42 and 851.43, *Final notice of violation*, DOE/NNSA entered into this Consent Order with Honeywell FM&T. Additionally, in consideration of the action to be taken by KCFO, affecting the FY2022 Performance Evaluation Report rating with the resultant fee reduction related to the nitrogen asphyxiation event, and consistent with 10 C.F.R. § 851.5(c), *Enforcement*, no monetary remedy is included in this Consent Order.
 3. Honeywell FM&T agrees to return a signed copy of this Consent Order within one week from the date of receipt, via email, to the Director, Office of Enforcement, at enforcementdocketclerk@hq.doe.gov.
 4. The effective date of this Consent Order shall be the date upon which Honeywell FM&T signs this Consent Order.
 5. This Consent Order shall constitute a full and final settlement of the potential noncompliances identified in the referenced NTS reports, subject to Honeywell FM&T's completion of all actions set forth in item 1 above, to the satisfaction of DOE/NNSA and the Office of Enforcement.
 6. No "cost", as defined in the Federal Acquisition Regulation, 48 C.F.R. § 31.205-47, *Costs related to legal and other proceedings*, incurred by, for, or on behalf of Honeywell FM&T relating to coordination and cooperation with DOE concerning the investigation of matters covered by this Consent Order, shall be considered allowable costs under the Contract. However, costs incurred by, for, or on behalf of Honeywell FM&T relating to the development and implementation of corrective actions (including costs associated with the effectiveness review required under item 1 above), may be considered allowable costs under the Contract.

7. This Consent Order does not preclude DOE from reopening the investigation or preclude DOE/NNSA from issuing an enforcement action under 10 C.F.R. § 851.42 with respect to a potential noncompliance if: (a) after the effective date (as provided in item 3, above), DOE/NNSA becomes aware of any false or materially inaccurate facts or information provided by Honeywell FM&T; (b) there is a recurrence of worker safety and health deficiencies similar to those identified above; or (c) Honeywell FM&T fails to complete all actions identified in item 1, above, in a timely and effective manner to prevent recurrence.
8. Any modification to this Consent Order requires the written consent of all Parties.
9. Honeywell FM&T waives any and all rights to appeal or otherwise seek judicial or administrative review of the terms of this Consent Order. DOE/NNSA retains the right to judicially enforce the provisions of this Consent Order by all available legal means.
10. This Consent Order is issued pursuant to DOE's authority under Section 234C of the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2282c), and the implementing provisions of Part 851 governing enforcement of worker safety and health requirements at DOE/NNSA sites.
11. This Consent Order shall become a Final Order after the signed copy, referenced in item 3 above, is filed by the Office of Enforcement's Office of the Docketing Clerk.

On behalf of my respective organization, I hereby agree to and accept the terms of the foregoing Consent Order.

FOR National Nuclear Security
Administration

FOR Honeywell FM&T, LLC



Date 11/7/22



Date 11/21/2022

Jill Hruby
Under Secretary for Nuclear Security
Administrator, NNSA

Eric Wollerman
President
Honeywell FM&T, LLC

FOR Office of Enforcement



Date 11/14/2022

Anthony C. Pierpoint
Director
Office of Enforcement
Office of Enterprise Assessments