



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



May 12, 2022

Mr. Eric Wollerman
President
Honeywell Federal Manufacturing & Technologies, LLC
14510 Botts Road
Kansas City, MO 64147

WEA-2022-01

Dear Mr. Wollerman:

This letter refers to the Department of Energy's (DOE) investigation into the facts and circumstances associated with machine guarding and hazardous energy control programs, and the roll mill crush injury that occurred on March 3, 2020, at the Kansas City National Security Campus. The DOE Office of Enterprise Assessments' Office of Enforcement provided the results of the investigation to Honeywell Federal Manufacturing and Technologies, LLC (FM&T) in an investigation report dated August 18, 2021. An enforcement conference was convened on September 30, 2021, with you and members of your staff to discuss the report's findings and FM&T's response. A summary of the enforcement conference and attendance roster are enclosed.

The DOE's National Nuclear Security Administration (DOE/NNSA) considers the roll mill crush injury event to be of high safety significance. Specifically, an FM&T Rubber and Plastics Department worker received a crush injury to their left hand while cleaning a moving two-roll mill. One of the employee's fingers required surgery to insert a pin and two other fingers subsequently required amputation. The event revealed deficiencies in: (1) management responsibilities, (2) hazard identification, assessment, prevention and abatement, and (3) training and information.

Based on an evaluation of the evidence in this matter, including information presented at the enforcement conference, DOE/NNSA concludes that FM&T violated requirements prescribed under 10 C.F.R. Part 851, *Worker Safety and Health Program*. Accordingly, DOE/NNSA hereby issues the enclosed Preliminary Notice of Violation (PNOV) which cites two Severity Level I violations and one Severity Level II violation with a total base civil penalty, before mitigation, of \$265,000.

After the event, FM&T promptly reported the occurrence to DOE management, abated the hazard, investigated and performed a causal analysis into the event, and developed appropriate corrective actions for the violations. The corrective actions were completed in a timely manner and appear to adequately address the programmatic hazardous energy control issues, the work planning and control programmatic deficiencies related to machine guarding on roll mills, and


training protocols to prohibit inexperienced operators from running equipment without adequate supervision.

FM&T published a lessons learned document, identified root and contributing causes of the event, and provided recommendations for other Honeywell (Corporate) sites. After the event, FM&T attempted to follow the job hazard analysis cleaning tasks as written, but with the roll mill turned off; however, it was determined that cleaning the mill rollers while stationary was not operationally efficient. On June 24, 2020, FM&T fabricated and installed a machine guard on the roll mill to prevent worker exposure(s) to the mill's in-running nip point hazards. Consequently, the Office of Enforcement applied 50 percent mitigation for corrective actions taken by FM&T. As a result, the total proposed civil penalty is \$132,500.

Pursuant to 10 C.F.R. § 851.42, *Preliminary Notice of Violation*, you are obligated to submit a written reply within 30 calendar days of receipt of the enclosed PNOV and to follow the instructions specified in the PNOV when preparing your response. If you fail to submit a reply within the 30 calendar days, then in accordance with 10 C.F.R. § 851.42(d), you relinquish any right to appeal any matter in the PNOV, and the PNOV, including the proposed civil penalty assessment, will constitute a final order.

After reviewing your reply to the PNOV, including any proposed additional corrective actions entered into DOE's Noncompliance Tracking System, DOE/NNSA will determine whether any further activity is necessary to ensure compliance with DOE worker safety and health requirements. DOE/NNSA will continue to monitor the completion of corrective actions until this matter is fully resolved.

Sincerely,

A handwritten signature in black ink, appearing to read "Jill Hruby". The signature is fluid and cursive, with a large initial "J" and a long, sweeping horizontal stroke at the end.

Jill Hruby

Enclosures:
Preliminary Notice of Violation (WEA-2022-01)
Enforcement Conference Summary
Enforcement Conference Attendance Roster

cc: Jeffrey Shoulta, NA-KC
Jessy Innocent, NA-KC
Chad Stotler, Honeywell FM&T
Frank Rose, NA-1
James McConnell, NA-1
Douglas Fremont, NA-1
Kenneth Sheely, NA-50
Daniel Sigg, NA-50
Stephen Wallace, NA-50
Anna McCuen, NA-MB-1.3
Anthony Pierpoint, EA-10
Robert Hailstone, EA-11
Kevin Kilp, EA-30
Eric Nicoll, EA-40
Barbara Pruitt, EA-40
Stephen Turner, EA-40
William West, EA-50
Michael Green, EA-50

Preliminary Notice of Violation

Honeywell Federal Manufacturing and Technologies, LLC
DOE/NNSA Kansas City National Security Campus

WEA-2022-01

A U.S. Department of Energy (DOE) investigation into the facts and circumstances associated with the machine guarding and hazardous energy control programs and a roll mill crush injury that occurred on March 3, 2020, at the Kansas City National Security Campus revealed multiple violations of DOE worker safety and health requirements by Honeywell Federal Manufacturing and Technologies, LLC (FM&T). The event occurred during a cleaning task that required the worker to wipe the rollers while they were in motion, using a tissue dampened with isopropyl alcohol. While cleaning the front roller, the worker's left hand was pulled into the in-running nip point of the two-roll mill, trapping it between the moving rollers. The worker immediately activated the emergency knee stop and yelled for help. Another worker in the immediate vicinity responded by quickly obtaining a wrench and using it to mechanically separate the rollers, freeing the trapped worker's hand. A security police officer assigned to the area performed first aid until emergency services arrived and transported the injured worker to an offsite medical facility.

DOE provided FM&T with an investigation report dated August 18, 2021, and convened an enforcement conference on September 30, 2021, with FM&T representatives to discuss the report's findings and FM&T's response.

Pursuant to Section 234C of the *Atomic Energy Act of 1954*, as amended, and DOE regulations set forth at 10 C.F.R. part 851, *Worker Safety and Health Program*, the National Nuclear Security Administration (DOE/NNSA) hereby issues this Preliminary Notice of Violation (PNOV) to FM&T. The violations cited in this PNOV include deficiencies in: (1) management responsibilities; (2) hazard identification, assessment, prevention, and abatement; and, (3) training and information. DOE/NNSA has grouped and categorized these deficiencies as two Severity Level I violations and one Severity Level II violation.

Severity Levels are explained in 10 C.F.R. part 851, appendix B, *General Statement of Enforcement Policy*, subparagraph VI(b). Subparagraph VI(b)(1) states that “[a] Severity Level I violation is a serious violation. A serious violation shall be deemed to exist in a place of employment if there is a potential that death or serious physical harm could result from a condition which exists, or from one or more practices, means, methods, operations, or processes which have been adopted or are in use, in such place of employment.”

Subparagraph VI(b)(2) states that “[a] Severity Level II violation is an other-than-serious violation. An other-than-serious violation occurs where the most serious injury or illness that would potentially result from a hazardous condition cannot reasonably be predicted to cause death or serious physical harm to employees but does have a direct relationship to their safety

and health.”

In consideration of the mitigating factors, DOE/NNSA imposes a total proposed civil penalty of \$132,500.

As required by 10 C.F.R. § 851.42(b) and consistent with 10 C.F.R. part 851, appendix B, the violations are listed below. If this PNOV becomes a final order, then FM&T may be required to post a copy of this PNOV in accordance with 10 C.F.R. § 851.42(e).

I. VIOLATIONS

A. Management Responsibilities

Title 10 C.F.R. § 851.10, *General requirements*, subsection (a), states that “[w]ith respect to a covered workplace for which a contractor is responsible, the contractor must:...(2) [e]nsure that work is performed in accordance with: (i) [a]ll applicable requirements of [10 C.F.R. part 851]; and (ii) [t]he worker safety and health program for that workplace.”

Title 10 C.F.R. § 851.20, *Management responsibilities and worker rights and responsibilities*, subsection (a), *Management responsibilities*, states that “[c]ontractors are responsible for the safety and health of their workforce and must ensure that contractor management at a covered workplace:...(3) [a]ssign worker safety and health program responsibilities, evaluate personnel performance, and hold personnel accountable for worker safety and health performance.”

Honeywell FM&T Health, Safety and Environment Management System (HSEMS) Description and Worker Safety and Health Program (WS&HP), September 3, 2019, section 2.3, *Organizational Roles, Responsibilities and Authorities*, states that managers accept “responsibility and accountability for Health, Safety & Environmental [HS&E] performance associated with the work performed under their direct supervision, including...[e]nsuring that employees perform work in compliance with the policies and applicable procedural requirements in Command Media and other applicable work directions.” Section 4.5.2, *Creating and Updating*, states that “HS&E Management System documents include...work instructions...job hazard analyses...HS&E Program owners are responsible to assure documents are created and updated to match program requirements.”

Honeywell FM&T job hazard analysis (JHA) 101197, *How to Operate a Rolling Mill*, revision 6, January 7, 2016, states that workers are required to “[e]nsure power to the roll mill is off” during cleaning.

Contrary to these requirements and as evidenced by the following facts, FM&T failed to adequately implement the *Honeywell FM&T HSEMS Description and WS&HP* addressing high-risk activities, such as the cleaning of mill rollers while in motion.

FM&T failed to ensure that JHA 101197 was integrated into Work Package 4003047-00-800, *Molding Compound, Silicone, Cellular*, as required by the *FM&T HSEMS Description and*

WS&HP. The worker reviewed JHA 101197, *How to Operate a Rolling Mill*, several weeks prior to the event, which required that the roll mill be turned off during the cleaning of mill rollers. However, on the day of the event, FM&T only provided the worker with Work Package, 4003047-00-800, and instructed the worker to clean the rollers on the roll mill while in operation. FM&T failed to ensure the JHA and work package were consistent to prevent the worker from exposure to the hazards of the moving mill rollers and the in-running nip point of the roll mill.

This noncompliance constitutes a Severity Level I violation.

Base Civil Penalty – \$106,000

Proposed Civil Penalty (50 percent reduction for FM&T’s corrective actions) – \$53,000

B. Hazard Identification, Assessment, Prevention, and Abatement

Title 10 C.F.R. § 851.21, *Hazard identification and assessment*, subsection (a), states that “[c]ontractors must establish procedures to identify existing and potential workplace hazards and assess the risk of associated worker injury and illness.” Paragraphs (a)(5) and (6) specify that procedures must include methods to “[e]valuate operations, procedures, and facilities to identify workplace hazards” and “perform routine job activity-level hazard analyses.” Subsection (c) requires that “[c]ontractors must also perform the activities listed in paragraph (a) to initially obtain baseline information, and as often thereafter as necessary to ensure compliance with the requirements in this Subpart.”

Title 10 C.F.R. § 851.22, *Hazard prevention and abatement*, subsection (a), states that “[c]ontractors must establish and implement a hazard prevention and abatement process to ensure that all identified and potential hazards are prevented or abated in a timely manner.” Subparagraph (a)(2)(iii) states that “[f]or existing hazards identified in the workplace, contractors must...protect workers from dangerous safety and health conditions.” Subsection (b) states that “[c]ontractors must select hazard controls based on the following hierarchy: (1) elimination or substitution of the hazards where feasible and appropriate, (2) engineering controls where feasible and appropriate, (3) work practices and administrative controls that limit worker exposures, and (4) personal protective equipment.” Subsection (c) states that “[c]ontractors must address hazards when selecting or purchasing equipment, products, and services.”

Title 10 C.F.R. § 851.23, *Safety and health standards*, subsection (a), states that “[c]ontractors must comply with the following safety and health standards that are applicable to the hazards at their covered workplace:...(3) Title 29 [C.F.R.] Part 1910, ‘*Occupational Safety and Health Standards*.’”

Title 29 C.F.R. § 1910.212, *Machinery and machine guarding, general requirements for all machines*, subsection (a), paragraph (1), states that “[o]ne or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips, and sparks.” In addition, paragraph (a)(2) states that “[g]uards shall be affixed to the machine where possible and secured elsewhere if for any reason attachment to the

machine is not possible. The guard shall be such that it does not offer an accident hazard in itself.”

Honeywell FM&T HSEMS Description and WS&HP, section 3.1.2.2, *Management of Change (MOC)/Preliminary Hazard Analysis (PHA)*, states that “[t]he focus of the MOC/PHA program is to identify and analyze hazards and develop controls to mitigate those hazards for new or changed operations.”

Honeywell General Machine and Equipment Safeguarding Specification, HSEMS 305, *Machinery & Equipment Safe Guarding*, December 9, 2016, *General*, section 1.1, requires that “safeguarding be provided to protect employees from the hazards of machinery.” The procedure allows for “several types of machine safeguarding, including fixed guards, barriers, tripping devices and electronic safety devices.” Furthermore, section 1.2 prompts “the decision regarding selection of machine safeguarding to be determined by a site machine risk assessment.” Section 3.0, *Machine Safeguarding Selection*, part 3.1.1, *Prevent Contact*, states that “[t]he safeguard prevents hands, arms, or any other part of a worker's body from making contact with dangerous moving parts, components, or materials at high or low temperatures.”

Honeywell Work Instruction Document W I5.15.2, *Machine Guarding*, April 16, 2018, section 2.0, states that “[m]achine guarding is designed to prevent injury to associates working with and around equipment that has moving parts.” Furthermore, it states that “[t]he responsibilities and requirements for machine guarding apply to all divisions where they perform...milling.” Lastly, section 4.0, *Requirements*, states that the Facility Maintenance Supervisor is required to “purchase/fabricate and install machine and power-transmission guards.”

Contrary to these requirements and as evidenced by the following facts, FM&T failed to adequately identify, analyze, or prevent worker exposure(s) to hazards encountered during the roll mill cleaning task.

1. FM&T failed to identify the in-running nip point hazard on the roll mill in Work Package 4003047-00-800, *Molding Compound, Silicone, Cellular*, to workers performing the task of cleaning the mill rollers. Specifically, the work package required the worker to wipe the moving mill rollers using a tissue dampened with isopropyl alcohol.
2. FM&T failed to adequately control worker exposure(s) to in-running nip point hazards on the roll mill during cleaning of mill rollers. Specifically, FM&T did not install a machine guard that would have prevented the worker from contact with the in-running nip point of the roll mill (during cleaning), or administratively control exposure(s) through the use of work practice controls.

Collectively, these noncompliances constitute a Severity Level I violation.

Base Civil Penalty – \$106,000

Proposed Civil Penalty (50 percent reduction for FM&T’s corrective actions) – \$53,000

C. Training and Information

Title 10 C.F.R. § 851.25, *Training and information*, subsection (a), states that “[c]ontractors must develop and implement a worker safety and health training and information program to ensure that all workers exposed or potentially exposed to hazards are provided with the training and information on that hazard, in order to perform their duties in a safe and healthful manner.” In addition, subsection (c) states that “[c]ontractors must provide training and information to workers who have safety and health program responsibilities that are necessary for them to carry out those responsibilities.”

Title 29 C.F.R. § 1910.147, *The control of hazardous energy (lockout/tagout)*, subsection (c), paragraph (7), subparagraph (i), clause (A), states that “[e]ach authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.”

Honeywell Lock Tag Try Level 2 Operation Control Procedure, Safety Document, HSEMS 301, section 3, revision 3, April 1, 2019, states that affected employees must receive “[t]raining on the purpose, general requirements and use of the Lock, Tag and Try Procedure...annually.” Additionally, it states that training is to be performed “[i]nitially, prior to being assigned to work in an area where Lock, Tag and Try procedures are utilized.”

Contrary to these requirements and as evidenced by the following facts, FM&T failed to ensure that personnel were effectively trained on hazardous energy control procedures.

FM&T failed to ensure that affected workers received annual refresher training on the purpose, general requirements, and use of lockout/tagout devices. FM&T requires initial lockout/tagout training to be completed prior to assignment in a work area where Lock, Tag and Try procedures are utilized. In addition, workers are required to complete lockout/tagout refresher training on an annual basis; however, the investigation revealed that 13 employees in the rubber and plastics department (including the injured worker) did not receive the FM&T lockout/tagout refresher training at the required frequency.

This noncompliance constitutes a Severity Level II violation.

Base Civil Penalty – \$53,000

Proposed Civil Penalty (50 percent reduction for FM&T’s corrective actions) – \$26,500

II. REPLY

Pursuant to 10 C.F.R. § 851.42(b)(4), FM&T is hereby obligated to submit a written reply within 30 calendar days of receipt of this PNOV. The reply should be clearly marked as a “Reply to the Preliminary Notice of Violation.”

If FM&T chooses not to contest the violations set forth in this PNOV and the proposed remedy, then the reply should state that FM&T waives the right to contest any aspect of this PNOV and

the proposed remedy. In such case, the total proposed civil penalty of \$132,500 must be remitted within 30 calendar days after receipt of this PNOV by check, draft, or money order payable to the Treasurer of the United States (Account 891099) and mailed to the address provided below. To remit the civil penalty by electronic funds transfer (EFT), please have your accounting department contact the Office of Enforcement's Docket Clerk at (301) 903-4033 for EFT wiring instructions. This PNOV will constitute a final order upon the filing of the reply.

If FM&T disagrees with any aspect of this PNOV, including the proposed civil penalties, then as applicable and in accordance with 10 C.F.R. § 851.42(c)(1), the reply must: (1) state any facts, explanations, and arguments that support a denial of an alleged violation; (2) demonstrate any extenuating circumstances or other reason why the civil penalties should not be imposed or should be further mitigated; and, (3) discuss the relevant authorities that support the position asserted, including rulings, regulations, interpretations, and previous decisions issued by DOE/NNSA. In addition, 10 C.F.R. § 851.42(c)(2) requires that the reply include copies of all relevant documents.

If FM&T fails to submit a written reply within 30 calendar days of receipt of this PNOV, then pursuant to 10 C.F.R. § 851.42(d), FM&T relinquishes any right to appeal any matter in this PNOV, and this PNOV will constitute a final order.

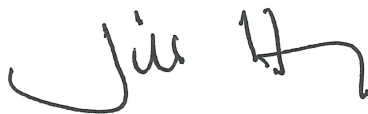
Please send the appropriate reply by overnight carrier to the following address:

Director, Office of Enforcement
Attention: Office of the Docketing Clerk, EA-10
U.S. Department of Energy
19901 Germantown Road
Germantown, Maryland 20874-1290

A copy of the reply should also be sent to my office and the Manager of the DOE/NNSA Kansas City Field Office.

III. CORRECTIVE ACTIONS

Corrective actions that have been or will be taken to avoid further violations should be delineated, with target and completion dates, in DOE's Noncompliance Tracking System.



Jill Hruby
Under Secretary for Nuclear Security
Administrator, National Nuclear Security Administration

Washington D.C.
This 12 day of May 2022