



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 1, 2020

Mr. Stan J. Piedra
PIM QA Manager
Pooled Equip Inventory Co (PEICo)
8100 W Buckeye Rd. (MC85)
Phoenix, AZ 85043

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF
POOLED EQUIPMENT INVENTORY CO. NO. 99901013/2020-201

Dear Mr. Piedra:

On October 19 through October 20, 2020, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at Pooled Equipment Inventory Company (PEICo) Strategic Alliance for FLEX Emergency Response (SAFER) facility in Phoenix, AZ. The purpose of the inspection was to evaluate the Pooled Inventory Management (PIM) which is a contracted agent of PEICo (hereafter referred to as PEICo/PIM), for the support activities of the SAFER program. PEICo/PIM's SAFER activities support the nuclear industry by warehousing, maintaining, testing and deploying of Phase 3 SAFER FLEX equipment. Phase 3 SAFER FLEX equipment enables mitigation strategies first identified in NRC Order EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." PEICo/PIM's Phase 3 SAFER FLEX program is based on guidance in NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Section 12, "Off-Site Resources," to meet the regulatory requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.155, "Mitigation of beyond-design basis events." The enclosed report presents the results of this inspection. This NRC inspection report does not constitute NRC endorsement of your overall quality assurance or Part 21 programs.

Within the scope of this inspection, no violations or nonconformances were identified.

In accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System, which is accessible at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

Kerri A. Kavanagh, Chief **/RA/**
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF
POOLED EQUIP INVENTORY CO. 99901013/2020-201
Dated: December 1, 2020

Docket No.: 99901013

EPID No.: I-2020-201-0141

Enclosures:

- 1. Inspection Report No. 99901013/2020-201
and Attachment

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**U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
DIVISION OF REACTOR OVERSIGHT
VENDOR INSPECTION REPORT**

Docket No.: 99901013

Report No.: 99901013/2020-201

Vendor: Pooled Equip Inventory Co (PEICo)
Barnhart Crane & Rigging
8100 W Buckeye Rd. (MC85)
Phoenix, AZ 85043

Vendor Contact: Mr. Stan J. Piedra
PIM QA Manager
Email: sjpiedra@southernco.com
Office: (205) 992-5421

Nuclear Industry Activity: Pooled Inventory Management (PIM), as agent for PEICo, and under contract to support the Strategic Alliance for FLEX Emergency Response (SAFER) program, is responsible for the storage, maintenance, and testing of the additional off-site equipment, when deployed; and provide the capability and redundancy for power plants until power, water, and coolant injection systems are restored or commissioned (Phase 3). Phase 3 SAFER FLEX equipment is used by NRC licensees to mitigate the consequences of beyond-design-basis external events.

Inspection Dates: October 19 - October 20, 2020

Inspectors: Aaron Armstrong NRR/DRO/IQVB Team Leader
 Kerri Kavanagh NRR/DRO/IQVB

Approved: Kerri A. Kavanagh, Chief
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

Enclosure

EXECUTIVE SUMMARY

PEICO/PIM SAFER Program
99901013/2020-201

The U.S. Nuclear Regulatory Commission (NRC) conducted a vendor inspection of the Pooled Equipment Inventory Company (PEICo) Strategic Alliance for FLEX Emergency Response (SAFER) facility in Phoenix, AZ. The purpose of the inspection was to evaluate the Pooled Inventory Management (PIM) which is a contracted agent of PEICo (hereafter referred to as PEICo/PIM), for the support activities of the SAFER program. PEICo/PIM's SAFER activities support the nuclear industry by warehousing, maintaining, testing and deploying of Phase 3 SAFER FLEX. Phase 3 SAFER FLEX equipment enables mitigation strategies first identified in NRC Order EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." PEICo/PIM's Phase 3 SAFER FLEX program is based on guidance in NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Section 12, "Off-Site Resources," to meet the regulatory requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.155, "Mitigation of Beyond-Design Basis Events." The enclosed report presents the results of this inspection. PEICo/PIM has established a 10 CFR Part 50, Appendix B and 10 CFR Part 21 program. However, the NRC inspection team determined that not all activities are required to be done in accordance with these regulations. This NRC inspection report does not constitute NRC endorsement of your overall quality assurance or Part 21 programs.

The vendor inspection of PEICo/PIM focused on the SAFER program as it applies to supporting the beyond design mitigation efforts including procurement, maintenance, testing, and storage of the additional off-site equipment. When Phase 3 SAFER FLEX is deployed, it provides the capability and redundancy for power plants until power, water, and coolant injection systems are restored. Phase 3 SAFER FLEX equipment is used by NRC licensees to mitigate the consequences of beyond-design-basis external events. The Phoenix facility shares the same overall programmatic processes (i.e. procedures, qualification, procurement, etc.) as the Memphis, TN facility. The NRC vendor inspection of PEICo/PIM's SAFER program is required, on an alternating triennial basis, at both the Phoenix and Memphis locations. Specific activities observed by the NRC inspection team included:

- The NRC inspection team observed quarterly maintenance activities being performed using Work Instruction (WI)-2-10-TGM for a 4160 VAC Turbine Generator unit.

These regulations served as the bases for the NRC inspection:

- 10 CFR 50.155

During the course of this inspection, the NRC inspection team implemented portions of Inspection Procedure (IP) 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated May 16, 2019; IP 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017; and IP 43006, "Inspection of the implementation of mitigation strategies order regarding the use of the National SAFER Response Centers (NSRC)." The information below summarizes the results of this inspection.

SAFER Program

The NRC inspection team reviewed PEICo/PIM's policies and implementing procedures that govern the overall implementation of the SAFER program including storage, maintenance, procurement, testing, and deploying activities. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures associated with the SAFER program. No findings of significance were identified.

Procurement Control

The NRC inspection team concluded that PEICo/PIM is implementing the necessary procurement controls in accordance with NEI 12-06. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures associated with the procurement activities. No findings of significance were identified.

Test, Maintenance and Measuring & Test Equipment (M&TE) Control

The NRC inspection team concluded that PEICo/PIM is adequately implementing its test, maintenance and M&TE program in accordance with NEI 12-06. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures associated with the maintenance activities. No findings of significance were identified.

Handling, Storage, and Deployment

The NRC inspection team concluded that PEICo/PIM is implementing its handling, storage, and deployment activities in accordance with NEI 12-06. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures associated with the handling of SAFER equipment. No findings of significance were identified.

Corrective Actions

The NRC inspection team concluded that PEICo/PIM is implementing its corrective action program in accordance with NEI 12-06. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures associated with the corrective action program. No findings of significance were identified.

REPORT DETAILS

1. SAFER Program

a. Inspection Scope

The U.S. Nuclear Regulatory Commission (NRC) inspection team reviewed Pooled Equipment Inventory Company's (PEICo's)/Pooled Inventory Management's (PIM's) policies and implementing procedures that govern the overall implementation of the Strategic Alliance for FLEX Emergency Response (SAFER) program including storage, maintenance, procurement, testing, and deploying activities. The NRC inspection team evaluated PEICo/PIM's SAFER program processes which include the development of procedures governing all activities including determination of procurement technical specifications, vendor selection, receipt inspection, periodic maintenance, adequate testing, adequate storage, and development of training for on-site staff and staff activated during an emergency. The NRC inspection team reviewed the policies and a sample of implementing procedures for PEICo/PIM's Phase 3 FLEX equipment stored at the Phoenix, AZ National SAFER Response Centers (NSRC) facility to verify that the control processes were effectively implemented throughout the various stages from procurement, testing and storage. PEICo/PIM has established a 10 CFR Part 50, Appendix B and 10 CFR Part 21 program. However, the NRC inspection team determined that not all activities are required to be done in accordance with these regulations. The attachment to this inspection report lists the individuals interviewed and documents reviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusions

The NRC inspection team concluded that PEICo/PIM is adequately implementing its SAFER program controls in accordance with its policies and procedures. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures consistent with the requirements of 10 CFR 50.155.

2. Procurement Document Controls and Internal Audits

a. Inspection Scope

The NRC inspection team reviewed PEICo's/PIM's policies and implementing procedures that govern the implementation of its procurement document controls and internal audits. Specifically, the NRC inspection team reviewed PEICo's/PIM's purchase orders (POs), receipt inspection reports (RIRs) and verified that equipment requirements from the manufacturer were incorporated into work instructions. In general, the current POs being placed are for maintenance services, replacement parts, and deployment services. The NRC inspection team verified that contracts with trucking and air providers are in place, valid and updated to ensure assumptions (i.e. no single external event will preclude capability to supply needed resources to licensees) for deployment of FLEX equipment remain valid.

The NRC inspection team reviewed the PEICo's/PIM's internal audit from 2019 performed by an independent contractor. The NRC inspection team reviewed the associated PO and verified the independence of the contractor that performed the internal audit.

The NRC inspection team also discussed the procurement document control and internal audit programs with PEICo's/PIM's management and technical staff. The attachment to this inspection report lists the documents reviewed and the staff interviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that PEICo/PIM is adequately implementing its procurement document control and internal audit programs in accordance with its policies and procedures. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures consistent with the requirements of 10 CFR 50.155.

3. Measuring & Test Equipment Control (M&TE)

a. Inspection scope

The NRC inspection team reviewed PEICo's/PIM's policies and implementing procedures that govern the M&TE program to verify compliance with the requirements of 10 CFR 50.155, "Mitigation of beyond-design-basis events." The NRC inspection team observed that M&TE was calibrated, labeled, tagged, handled, stored, or otherwise controlled to indicate the calibration status and its traceability to nationally recognized standards. The NRC inspection team also confirmed that when M&TE is found to be out of calibration, PEICo/PIM initiates a nonconformance report and performs an evaluation to determine the extent of condition.

The NRC inspection team also discussed the M&TE program with PEICo's/PIM's management and technical staff. The attachment to this inspection report lists the documents reviewed and the staff interviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that PEICo/PIM is adequately implementing its M&TE program in accordance with its policies and procedures. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures consistent with the requirements of 10 CFR 50.155.

4. Test and Maintenance

d. Inspection scope

The NRC inspection team reviewed procedures for tests, preventive maintenance, test objectives, test requirements, and acceptance criteria contained in the applicable technical documents. Specifically, the NRC inspection team reviewed PEICo's/PIM's procedures for performing quarterly maintenance on the 4160 VAC Turbine Generator using a PEICo/PIM 4160 VAC load distribution center. The NRC inspection team reviewed Work Instruction (WI)-2-10 for 4160 VAC for the turbine generator's quarterly maintenance, WI-GP-12 for the replacement of the turbine generator's starting nozzle, and WI-GP-09 for battery checks for Phase 3 FLEX equipment.

The NRC inspection team observed quarterly maintenance of a PEICo Turbine Marine manufactured, 4160 VAC Turbine Generators (TGM012). PEICo contracts Barnhart Crane and Rigging to handle equipment, house, and perform maintenance at the Phoenix NSRC facility. The NRC inspection team observed Barnhart personnel performing maintenance per WI-2-10, Version 7, dated April 13, 2020, including their safety pre-job brief to verify they followed warnings, cautions, and notes per the work instruction procedures. The NRC inspection team verified Barnhart recorded and verified values were within maintenance thresholds. The NRC inspection team verified that the 4160 VAC turbine generator load center settings were appropriate to ensure compliance with work instructions. The NRC inspection team interviewed Barnhart personnel and reviewed training records to ensure the personnel were qualified.

The NRC inspection team also discussed the testing and maintenance program with PEICo's/PIM's management and technical staff. The attachment to this inspection report lists the documents reviewed and the staff interviewed by the NRC inspection team.

e. Observations and Findings

No findings of significance were identified.

f. Conclusion

The NRC inspection team concluded that PEICo/PIM is adequately implementing its testing and maintenance program in accordance with its policies and procedures. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures consistent with the requirements of 10 CFR 50.155.

5. Handling, Storage, and Deployment

a. Inspection Scope

The NRC inspection team reviewed PEICo's/PIM's handling, storage, and deploying policies and procedures to verify conformance with the requirements of 10 CFR 50.155. The NRC inspection team observed how the Phase 3 FLEX equipment is stored, cataloged, and tracked for easy deployment to the correct NRC licensee that requests the equipment. The NRC inspection team discussed the conduct of the warehouse

operations for all the handling activities with PEICo's/PIM's management. The NRC inspection team performed walk downs of the different storage sections to verify the Phase 3 FLEX equipment described in the emergency deployment procedures and the bill of lading matched the different transportation pallets. The NRC inspection team verified that the procedures provided adequate guidance for the easy identification of equipment location and for licensee-specific equipment, it properly identified the necessary Phase 3 FLEX equipment.

The NRC inspection team verified that the storage facility would provide the necessary protection of the equipment and meet the availability requirements in accordance with the mitigation strategies requirements in 10 CFR 50.155. All samples of equipment verified for storage condition were adequately preserved and maintained. The NRC inspection team verified that all the documentation at the Phoenix facility for deployment of equipment when called upon during an emergency was up to date and reflected the current conditions of the warehouse.

The NRC inspection team also discussed the handling, storage, and deployment program with PEICo's/PIM's management and technical staff. The attachment to this inspection report lists the documents reviewed and the staff interviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusions

The NRC inspection team concluded that PEICo/PIM is adequately implementing its handling, storage, and deployment programs in accordance with its policies and procedures. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures consistent with the requirements of 10 CFR 50.155.

6. Corrective Action Program

a. Inspection Scope

The NRC inspection team reviewed PEICo/PIM's policies and implementing procedures for the Corrective Action Program (CAP) and Nonconformance Report (NCR) Program to ensure prompt identification, correction, and verification of effectiveness in accordance with the requirements of 10 CFR 50.155. The NRC inspection team reviewed a sample of PEICo's/PIM's CARs and NCRs and verified that procedures are established and implemented for correcting conditions affecting Phase 3 FLEX equipment. The sample of CARs and NCRs provided for documenting and describing the nonconforming condition, the cause and corrective action taken to prevent recurrence of the nonconforming condition. PEICo's/PIM's policies and implementing procedures adequately assess and document program deficiencies, receipt inspection rejections, equipment malfunction, and maintenance test failures in its corrective action program. The attachment to this inspection report lists the individuals interviewed and documents reviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusions

The NRC inspection team concluded that PEICo/PIM is adequately implementing its corrective action and nonconformance programs in accordance with its policies and procedures. Based on the limited sample of documents reviewed, the NRC inspection team also determined that PEICo/PIM is implementing its policies and procedures consistent with the requirements of 10 CFR 50.155.

1. Entrance and Exit Meetings

On October 19, 2020, the NRC inspection team discussed the scope of the inspection with Mr. Stan Piedra, PEICo/PIM's PIM QA Manager, and other members of PEICo's/PIM's management and technical staff. On October 20, 2020, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. Stan Piedra, other members of PEICo's/PIM's management and technical staff. The attachment to this report lists the attendees of the entrance and exit meetings, as well as those individuals whom the NRC inspection team interviewed.

ATTACHMENT

1. ENTRANCE/EXIT MEETING ATTENDEES

Name	Title	Affiliation	Entrance	Exit	Interviewed
David Crawley	Senior PMO Manager	PEICo/PIM (SNC)	X	X	X
Stan Piedra	PIM QA Manager	PEICo/PIM (SNC)	X	X	X
Mark Boggs	Facilities & Maintenance Manager	PEICo/PIM (SNC)	X	X	
Lesa Hill	PIM Program Manager	PEICo/PIM (SNC)	X	X	X
Greg Robison	SAFER Chairman	PEICo/PIM (Duke)	X	X	
Scott Stewart	SAFER Project Manager	PEICo/PIM (SNC)	X	X	
Greg Roberson	Phoenix NSRC Supervisor	PEICo/PIM (SNC)	X	X	
Sunny Potter	Phoenix NSRC Materials Analyst	PEICo/PIM (SNC)	X	X	
Drew Weiser	SAFER Program Manager	Framatome	X	X	
Marty Trum	Consultant	Framatome	X	X	
Mike Powell	PWROG Chairman & COO	PEICo/PIM (APS)		X	
Rick Matelski	Technician	Barnhart			X
Tim Lepak	Technician	Barnhart			X
Aaron Armstrong	Inspection TL	NRC	X	X	
Kerri Kavanagh	Branch Chief	NRC	X	X	

2. INSPECTION PROCEDURES USED

- Inspection Procedure (IP) 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated May 16, 2019
- Inspection Procedure 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017
- IP 43006, "Inspection of Implementation of Mitigation Strategies Order Regarding the Use of National Safer Response Centers" dated October 16, 2020

3. DOCUMENTS REVIEWED

Policies and Procedures

PEICo Quality Assurance Manual, Section 12, "Control of Measuring and Test Equipment," Version 8, dated August 27, 2019.

Pooled Inventory Management (PIM), Storage Facility Procedures AP-16, "Control of Measuring and Test Equipment," Version 2, October 13, 2020.

"PIM Policy and Procedures," Version 12, dated September 19, 2020

"PIM Storage Facility Procedures," Version 85, dated October 16, 2020

M&TE Log dated October 19, 2020

PEICo Quality Assurance Manual, Section 18, "Audits," Version 8, August 27, 2019

GQA, 2019 PEICo QA Program Annual Full Scope Audit, August 15, 2019

PEICo Quality Assurance Manual, Section 4, "Procurement Document Control," Version 8, August 27, 2019.

AP-14, "Equipment / Material Receiving," Version 3, October 13, 2020.

AP-11, "Identification of Substandard and/or Fraudulent Items," Version 1, October 11, 2017.

Framatome Doc. 38-9238005-002, "SAFER Response Plan for R.E. Ginna Nuclear Generating Station," January 4, 2019

Work Instruction (WI)-2-10, "4160 VAC Turbine Generator," Version 7, April 13, 2020

WI-GP-12, "Starting Nozzle Replacement," Version 3, March 13, 2019

WI-GP-10, "Battery Change Out," Version 1, November 28, 2016

WI-GP-09, "Battery Check," Version 1, April 26, 2017

WI-GP-1, "Degradation Inspection," Version 2, November 30, 2016

Procurement Documents

PO 201937, May 13, 2019

PO 201958, October 24, 2019

PO 201976, December 11, 2019

PO 202005, March 20, 2020

PO 202047, June 17, 2020

Receipt Inspection Report (RIR) 20-070 PO 202047, August 28, 2020

Certificate of Conformance for PO 202047, June 29, 2020

RIR 19-131 PO 201958, Oct 30, 2019

Certificate of Conformance for PO 201958, October 25, 2019

RIR 19-167 PO 201976, December 31, 2019

RIR 20-068 PO 202005C02, August 27, 2020

RIR 20-054 PO 202005CO2, August 28, 2020

RIR 20-061 PO 202005CO1, August 28, 2020

Contracts for Trucking and Air providers

PIM-N6, September 4, 2014 (ground).

NERRC101A001-0207 PIM001, September 12, 2014 (air).

NERRC101A001-0462 PIM001, September 19, 2014 (Call Center Services).

PO 201514, April 16, 2015 (helicopter program phase services).

SAFER Response Plan Supplement Aid No. 19, "Helicopter Provider Information," July 21, 2020.

Corrective Action/Nonconformance Reports

NCR No. 747, dated October 15, 2020

NCR No. 740, dated June 05, 2020

NCR No. 739, dated May 22, 2020

NCR No. 723, dated February 10, 2020

NCR No. 712, dated February 4, 20

CAR No. 19-40, dated July 31, 2019

CAR No. 19-30, dated May 16, 2019

CAR No. 20-12, dated September 24, 2020

CAR No. 20-11, dated September 15, 2020

CAR No. 20-10, dated September 17, 2020

CAR No. 20-07, dated August 7, 2020

Training Records

Barnhart Technician, dated April 3, 2019

Barnhart Technician, dated April 3, 2019

Audit

“Pooled Equipment Inventory Company (PEICo), Pooled Inventory Management (PIM), Program Manager Organization (PMO), Annual Full Scope Audit,” dated July 22-31, 2019