



Memorandum from the Office of the Inspector General

May 10, 2016

James R. Dalrymple, LP 3K-C

REQUEST FOR FINAL ACTION – EVALUATION 2015-15346 – FIREARMS AND AMMUNITION AT COAL PLANTS

We initiated an evaluation of Tennessee Valley Authority's (TVA) firearms and ammunition at coal plants based on a finding from Evaluation 2015-15271, Firearms and Ammunition, in which we found that TVA Police and Emergency Management (TVAP&EM) does not perform an annual physical inventory of coal plant-owned firearms. Maintenance personnel at the plants use the firearms (i.e., shotguns) to remove boiler slag, which is the buildup of molten ash. The objective of this evaluation was to determine if firearms and ammunition at coal plants are properly accounted for and safeguarded.¹

In summary, we determined TVA does not have standardized guidance related to the accountability of firearms and ammunition used at coal plants. Instead, each plant has implemented individualized accountability processes. Although three plants have written guidance related to accounting for and safeguarding firearms and ammunition, two plants did not. Our review of the written guidance and actual practices utilized at each plant found they were insufficient to account for and safeguard firearms and ammunition. Additionally, a firearm sent to Cumberland Fossil Plant (Cumberland) by TVAP&EM could not be located by plant personnel.

We recommend the Senior Vice President, Power Operations:

- Require written guidance for all coal plants to address the accounting for and safeguarding of firearms and ammunition.
- Require each plant to develop and maintain complete firearms and ammunition inventory listings including firearms supplied by TVAP&EM.
- Determine the disposition of the missing firearm sent to Cumberland.
- Reinforce the importance of adhering to guidance related to accounting for and safeguarding firearms and ammunition.

¹ "Accounted for" refers to whether plants are able to provide a reasonable record of, and know the whereabouts of, the firearms and ammunition. "Safeguarded" refers to whether plants are protecting firearms and ammunition from damage, misuse, or theft with appropriate measures.

TVA management agreed with our findings and recommendations. See the Appendix for TVA management's complete response.

BACKGROUND

TVA maintains firearms and ammunition at six coal plants: Bull Run Fossil Plant (Bull Run), Colbert Fossil Plant (Colbert), Cumberland, Gallatin Fossil Plant (Gallatin), Kingston Fossil Plant (Kingston), and Paradise Fossil Plant (Paradise). Maintenance personnel at the plants use the firearms (i.e., shotguns) to remove boiler slag—the buildup of molten ash—by shooting the slag or any foreign objects that could fall off the walls of boilers, thereby decreasing personnel safety hazard and improving heat efficiency.² As summarized below in Table 1, the quantity of firearms at each plant ranged from 3 to 29.

Fossil Plant	Number of Firearms
Bull Run	5
Colbert*	5
Cumberland	29
Gallatin	3
Kingston	6
Paradise	3
Total	50

*Colbert's maintenance manager informed us 4 firearms at Colbert were transferred to TVAP&EM's possession in March 2016. One rental firearm will be kept at Colbert until the end of May for possible deslagging needed while the boiler washes are being completed.

Table 1

In 2003, TVA issued Safety Procedure 223, which provided guidance related to the accountability of firearms and ammunition used for deslagging boilers. This procedure has since been removed from the TVA Safety Manual and there are currently varied processes related to the accountability of firearms and ammunition at the plants. Although TVA does not currently have standardized guidance regarding the accountability of firearms and ammunition used for deslagging boilers, the Senior Manager, Maintenance Programs, Power Operations, informed us that standard practice includes separate, locked storage for firearms and ammunition at each plant.

In July 2015, we completed an evaluation of the firearms and ammunition inventories maintained by TVAP&EM.³ During that review, we found that although TVAP&EM facilitates the purchase of firearms for coal plant operations, TVAP&EM does not maintain inventory controls over the weapons. (TVAP&EM maintains a list of firearms it purchases

² Cleaning slag deposits inside a boiler can increase boiler efficiency up to 4 percent when performed on a regular basis.

³ Evaluation 2015-15271, Firearms and Ammunition, July 24, 2015.

for the plants, but does not perform periodic inventory verifications of plant firearms.) Accordingly, we initiated this evaluation to determine if firearms and ammunition at coal plants are properly accounted for and safeguarded.

OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of our evaluation was to determine if firearms and ammunition at coal plants are properly accounted for and safeguarded. The scope of our evaluation included five of the six TVA coal plants that currently maintain firearms: Bull Run, Cumberland, Gallatin, Kingston, and Paradise. Colbert was excluded from the scope of our evaluation because the plant was scheduled to be retired in April 2016.⁴

To achieve our objective, we:

- Interviewed key TVA personnel and reviewed plant-specific guidance documents related to accounting for and safeguarding firearms and ammunition in order to gain a better understanding of processes and policies at coal plants.
- Performed a physical inventory of firearms and ammunition and attempted to determine if they were properly accounted for by:
 - Inspecting serial numbers on firearms at coal plants and comparing them to (1) coal plants' firearms inventory listings and (2) firearms included in TVAP&EM's 2015 firearms inventory. (Note: The comparison to the coal plant's firearms inventory listings could not be performed at three of the five plants because the plants did not maintain an inventory listing of firearms.)
 - Counting ammunition at coal plants and comparing to coal plant ammunition inventory listings.⁵ (Note: As discussed in our report, this comparison could not be performed at three of the five plants because they did not maintain inventory listings showing ammunition totals.)
- Observed safeguards in place to determine if they were in accordance with plant-specific guidance documents, or if there was no guidance, were current practices reasonable.

This evaluation was performed in accordance with the Council of the Inspectors General for Integrity and Efficiency's *Quality Standards for Inspection and Evaluation*.

FINDINGS

As discussed in the Background section of this report, TVA does not have standardized guidance related to the accountability of firearms and ammunition used at coal plants. Instead, each plant has implemented individualized accountability processes. Although three plants—Kingston, Cumberland, and Paradise—have written guidance related to accounting for and safeguarding firearms and ammunition, Bull Run and Gallatin did not.

⁴ Colbert was retired in March 2016.

⁵ One plant, Gallatin, had an ammunition check-in/out log that readily showed the total of ammunition in inventory and thus functioned as an inventory listing for our physical inventory.

We reviewed the written guidance and actual practices utilized at each plant and found they were insufficient to account for and safeguard firearms and ammunition. Additionally, a firearm sent to Cumberland by TVAP&EM could not be located by plant personnel.

INSUFFICIENT CONTROL OVER FIREARMS

Each plant has locked storage to safeguard firearms and logs to track the check in/out of firearms. However, various controls and/or practices related to accounting for and safeguarding firearms were insufficient or not followed.

- **Inventory Lists Incomplete or Not Maintained** – Three of the five plants—Bull Run, Gallatin and Kingston—did not maintain a firearms inventory listing separate from TVAP&EM's listing. We also noted three plants—Bull Run, Cumberland, and Paradise—had more firearms on hand than TVAP&EM's inventory listing showed, apparently because some firearms are purchased directly by plants without TVAP&EM's involvement. The lack of complete inventory lists prohibits effective monitoring and control of firearms.
- **Inadequate Tracking Procedures** – The firearms check-in/out logs used by Bull Run, Gallatin, Kingston, and Paradise did not include a column to track firearms' serial numbers. Also, firearms' log entries at Kingston and Paradise did not always include identifying information regarding the individual issuing or securing the firearms.
- **Unauthorized Firearm Check Outs** – Guidance at Cumberland allows only certain plant management to authorize firearm use prior to the sign out by authorized personnel. However, according to site personnel, other individuals—such as the maintenance coordinator or supervisor—sometimes perform that role.
- **Periodic Physical Inventory Verifications Not Performed at Four Plants** – Four of the five coal plants—Bull Run, Gallatin, Kingston, and Paradise—did not perform periodic inventory verifications to ensure the accuracy of inventory records.⁶ Cumberland personnel informed us that periodic physical inventories had been performed in the past, but the plant did not have documentation.

MISSING FIREARM AT CUMBERLAND

We performed a physical review of the firearms located at each plant to compare with the inventory listings maintained by the plant and/or TVAP&EM. We were able to account for all firearms on the combined inventory listings with one exception: Cumberland could not find a firearm that was included on the TVAP&EM's inventory list for Cumberland. According to TVAP&EM, the firearm had been purchased for and delivered to the plant; however, Cumberland did not have the firearm included on its plant inventory list.

INSUFFICIENT CONTROL OVER AMMUNITION

Each plant has locked storage to safeguard ammunition. However, various controls and/or practices related to the accounting and safeguarding of ammunition were insufficient.

⁶ Paradise's written guidance included a requirement for firearm inventory verifications to be performed.

- **Ammunition Inventory Lists Not Maintained** – Three of the five plants—Bull Run, Kingston and Paradise—did not maintain lists showing ammunition inventory totals, so we could not determine the adequacy of controls over ammunition inventories at these plants. (We noted Paradise’s written guidance included a requirement for maintaining an ammunition inventory listing and record of assignment; however, the plant did not maintain either of these.) Cumberland and Gallatin maintained inventory lists and were able to account for their ammunition during our site visit.
- **Periodic Physical Inventory Verifications Not Performed at Four Plants** – Three plants—Bull Run, Kingston and Paradise—did not maintain ammunition inventory listings and did not perform periodic inventory verifications. Although Gallatin maintained an ammunition inventory listing, periodic inventory verifications were not performed.
- **Ammunition Custodians Not Consistent With Guidance** – The guidance at Kingston and Paradise states that “the Maintenance Foreman shall be assigned keys for the ammunition storage cabinet and is responsible for preventing access to those keys by other personnel,” and “[t]he responsibility for keys and storage access cannot be delegated.” However, the Shift Operations Supervisor holds the keys at Kingston, and five people hold the keys to the ammunition storage box at Paradise.

RECOMMENDATIONS

We recommend the Senior Vice President, Power Operations:

- Require written guidance for all coal plants to address the accounting for and safeguarding of firearms and ammunition.
- Require each plant to develop and maintain complete firearms and ammunition inventory listings including firearms supplied by TVAP&EM.
- Determine the disposition of the missing firearm sent to Cumberland.
- Reinforce the importance of adhering to guidance related to accounting for and safeguarding firearms and ammunition.

TVA Management’s Comments – TVA management agreed with our findings and recommendations and stated they will implement a coal fleet governance procedure to address three of the recommendations related to accounting for and safeguarding firearms and ammunition. TVA management also stated that a TVAP&EM investigation concluded the missing firearm at Cumberland was disposed of at the end of its service life.

See the Appendix for TVA management’s complete response.

Auditor’s Response – We agree with management’s plans and the actions taken to address our recommendations.

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This report is for your review and final action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete. In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General is required to report to Congress semiannually regarding evaluations that remain unresolved after 6 months from the date of report issuance.

Information contained in this report may be subject to public disclosure. Please advise us of any sensitive information in this report that you recommend be withheld. If you have any questions or need additional information, please contact Alina A. Karpich, Auditor, at (423) 785-4825 or E. David Willis, Director, Evaluations, at (865) 633-7376. We appreciate the courtesy and cooperation received from your staff during the evaluation.



David P. Wheeler
Assistant Inspector General
(Audits and Evaluations)
ET 3C-K

AAK:FAJ

Attachment

cc (Attachment):

TVA Board of Directors
Robertson D. Dickens, WT 4D-K
William D. Johnson, WT 7B-K
Dwain K. Lanier, MR 6D-C
Justin C. Maierhofer, WT 7B-K
Richard W. Moore, ET 4C-K
Charles G. Pardee, WT 7B-K
OIG File No. 2015-15346

May 3, 2016

David P. Wheeler, ET 3C-K

**REQUEST FOR COMMENTS - EVALUATION 2015-15346 - FIREARMS AND AMMUNITION
AT COAL PLANTS**

We appreciate the opportunity to provide comments for the OIG evaluation of Firearms and Ammunition at Coal Plants dated April 14, 2016.

OIG Recommendations

We recommend the Senior Vice President, Power Operations:

1. Require written guidance for all coal plants to address the accounting for and safeguarding of firearms and ammunition.
2. Require each plant to develop and maintain complete firearms and ammunition inventory listings including firearms supplied by TVAP&EM.
3. Determine the disposition of the missing firearm sent to Cumberland.
4. Reinforce the importance of the adhering to guidance related to accounting for and safeguarding firearms and ammunition.

Recommendation No. 1

Require written guidance for all coal plants to address the accounting for and safeguarding of firearms and ammunition.

Response

Power Operations Programs and Performance will develop a coal fleet governance procedure establishing requirements for firearms/ammunition at coal plants to be safeguarded and accounted for through periodic inventory verifications. This action is considered closed upon procedure issuance due on or before November 18, 2016 (ATI #14584).

Recommendation No. 2

Require each plant to develop and maintain complete firearms and ammunition inventory listings including firearms supplied by TVAP&EM.

Response

As discussed in Response No. 1, the coal fleet governance procedure will contain a specific expectation for each plant to maintain a complete firearms and ammunition inventory list including firearms supplied by TVAP&EM. This action will be closed on or before January 27, 2017 and include verification that each plant has fulfilled the requirement.

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Recommendation No. 3

Determine the disposition of the missing firearm sent to Cumberland.

Response

Cumberland Fossil Plant (CUF) plant management contacted a TVAP&EM inspector to complete an investigation to determine the disposition of the firearm sent to CUF. According to the investigator, it was concluded that the missing firearm was disposed of at the end of its service life. Because of the due diligence exhibited by TVAP&EM and CUF plant management, this action is considered closed upon receipt of this response with no further actions required.

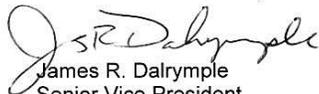
Recommendation No. 4

Reinforce the importance of adhering to guidance related to accounting for and safeguarding firearms and ammunition.

Response

As discussed in Response No. 1, the coal fleet governance procedure will contain specific language reinforcing the importance of adhering to guidance relating to the accounting and safeguarding of firearms and ammunition. Additionally, the fleet level governance procedure will contain specific expectations for conducting periodic audits to validate adherence to key requirements. As with Response No. 1, this action will be considered closed upon procedure issuance.

Please let us know if you have any other questions or need additional information.



James R. Dalrymple
Senior Vice President
Power Operations
LP 3K-C

JKW:SAW
Attachment

cc (Attachment):

Robertson D. Dickens, WT 4D-K
Dwain K. Lanier, MR 6D-K
Charles G. Pardee, WT 7B-K
EDMS, WT CA-K

From: [Shore, Kevin R](#)
To: [Mullins, Richard A](#)
Subject: FW: OIG Shotgun Audit
Date: Wednesday, April 27, 2016 11:28:25 AM

From: Barnes, David Emory
Sent: Tuesday, April 26, 2016 4:44 PM
To: Shore, Kevin R
Subject: OIG Shotgun Audit

Kevin,

In reference to the shotgun we discussed (Remington 870, serial # RS33764D), I can show when it was received here at CUF. However I do not have any tracking records prior to February 2014.

During 2011, when the shotgun in question was received at CUF, TVA Police Field Operations was in charge of removing faulty shotguns and destroying them and Pinkerton Guard company was assigned to check them in and out to the plant. From what I understand about the old process, when a shotgun was removed from service, it was taken by TVAP to the boiler maker shop and cut into pieces.

In 2012 TVA Police Field Operations was disbanded and Pinkerton was replaced with Murray Guard. The individuals who were in charge of inventory and removal of the CUF shotguns are no longer employed at TVA. When TVA Police was replaced, the satellite offices were cleaned out and files were shredded or thrown in the dumpster.

Sometime late 2013 early 2014, TVA Police came back, not in the exact role or capacity as the original, but enforcement, patrols and other duties returned.

During February 2014, I began overseeing the shotguns at CUF and kept record of the ones removed to be destroyed.

The first CUF shotgun inventory I performed was 02/11/2014 and the Remington 870, serial # RS33764D was not on it and has not shown up on any subsequent inventories. This leads me to the conclusion, it (the shotgun) had already been removed from service and destroyed.

I know the shotgun in question, was delivered to CUF and received by Angie Dew, that is all I can confirm.

The shotguns used for slagging, typically last about 2 years (less if they are used a lot). I do not have any documentation for support, but knowing the deteriorating rate of the slag guns, I am confident the shotgun has been destroyed.

David E. Barnes

Inspector

TVA Police & Emergency Management

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