

#### Memorandum from the Office of the Inspector General

July 18, 2006

Jacky D. Preslar, LP 3K-C

FINAL REPORT - INSPECTION 2006-524I - GALLATIN FOSSIL PLANT COAL DELIVERIES

Attached is the subject final report for your review and action. As discussed with you on July 17, 2006, the subject report is being issued in presentation format. Please advise us of your planned actions in response to our findings within 60 days of the date of this report.

Information contained in this report may be subject to public disclosure. Please advise us of any sensitive information in this report which you recommend be withheld.

If you have any questions, please contact Michael A. Driver, Senior Auditor, Inspections, at (423) 751-8158 or Gregory C. Jaynes, Deputy Assistant Inspector General, Inspections, at (423) 751-7821. We appreciate the courtesy and cooperation received from your staff during this review.

Ben R. Wagner

Assistant Inspector General (Audits and Inspections)

ET 3C-K

GCJ:BKA Attachment cc (Attachment):

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# Gallatin Fossil Plant Coal Deliveries

2006-5241

July 18, 2006



## **Agenda**

- Background
- Objective, Scope, and Methodology
- Observations
- Recommendations



## Background

- Based on information provided to the Office of the Inspector General (OIG) on coal receipt variances at Gallatin Fossil Plant (GAF), we determined an assessment of coal-receipt variances was warranted.
- Tennessee Valley Authority's (TVA) Fossil Power Group implemented the following standard processes and procedures concerning coal receipts on December 1, 2005:
  - "TVA vs. Vendor Weights" (YOP.SPP.08.014) Provides guidance for the standard process of collecting, recording, and reviewing coal delivery weights. The business support rep-multi (BSRM) must:
    - ◆ Enter TVA weights on the site's Daily Coal Report (DCR).
    - Submit a weight trend chart and weight comparison report to the OIG and Project Quality Group on a monthly basis.
    - Evaluate vendor and TVA weights to determine if there are any discrepancies of 1.5 percent or greater.
  - "Validate and Receive Fuel to FuelWorx" (YOP.SPP.08.015) Provides guidance for the standard process of recording fuel receipts into the FuelWorx (FWX) database.
  - "Complete Daily Coal Report" (YOP.SPP.08.017) Provides guidance for the completion of the DCR.
- According to the DCR for December 1, 2005, through May 3, 2006, coal shipments to GAF from three coal terminals totaled over 1.7 million tons.



## Objective, Scope, and Methodology

#### Objective:

◆ The objective of our review is to compare coal receipts using TVA and terminal shipment weights to identify whether any significant variances exist.

#### Scope:

 The scope of this inspection includes coal receipts during the period of December 1, 2005, to May 3, 2006.



# Objective, Scope, and Methodology (cont'd)

#### Methodology:

- ◆ To achieve our objective, we:
  - Interviewed key plant personnel to:
    - Determine current processes for inputting TVA and terminal shipment weights into FWX and the DCR.
    - ◆ Identify current methodology regarding scale calibration and material testing.
  - Assessed the accuracy of FWX and DCR data for the period December 1, 2005, to May 3, 2006, by comparing supporting documentation to the inputted amounts for 64 judgmentally selected coal shipments. Specifically, we:
    - Selected 50 shipments by taking the top 25 variances and then selecting every 40th variance thereafter.
    - Selected 14 additional shipments by identifying (1) the day with the largest variance and (2) the day with the largest number of shipments.
  - Recalculated variances based on terminal weights (DCR variances are based on TVA weights) to show variances as a percentage of terminal weights.
  - Created monthly variance graphs to identify possible trends.

This inspection was conducted in accordance with the "Quality Standards for Inspections."



## **Summary of Observations**

#### We found:

- ◆ All but 1 of the 64 tested coal shipments were input into FWX and the DCR accurately.
- ◆ Significant variances exist between TVA coal weights and terminal shipment weights.
  - Net effect of all variances shows that TVA received approximately 31,000 tons more coal than reported on the terminal shipping notices.



## Observation 1 – Coal Model Data Verification

Coal receipt information input into FWX and the DCR was generally accurate.\* Specifically for the 64 shipments reviewed, we found:

- One shipment where information from the daily barge unload report was not correctly input into the DCR.
- One shipment with a variance of zero (TVA weight equaled terminal weight) with no explanation.



<sup>\*</sup>For the 1,017 shipments in the sample population, we found six shipments with duplicate entries, and nine entries had a variance of zero (TVA weight equals terminal weight) with no explanation.

## Observation 2 – Coal Receipt Variances

According to the coal weight data reviewed, terminal shipment weights and TVA weights varied significantly. Specifically:

- ◆ Using recalculated variances, we identified monthly terminal variances that consistently showed TVA received more coal than reported on the terminal shipping notices.
  - Monthly variances ranged from -0.25 percent to over -4.5 percent.
- Individual shipment variances, as calculated by the DCR, also consistently showed TVA received more coal than reported on the terminal shipping notices.
  - While individual shipment variances for the period reviewed ranged from -22.06 percent to 20.67 percent, approximately 86 percent of individual shipment variances show that TVA received more coal than reported on terminal shipping notices.
  - Over one-half of all shipments had a variance of greater than 1.5 percent or -1.5 percent.
  - The net effect of all variances for the time period shows that TVA received approximately 31,000\*\* tons more coal than reported on the terminal shipping notices.



<sup>\*</sup>Negative variances indicate TVA received more coal than reported on the terminal shipping notice. Positive variances indicate TVA received less coal than reported on the terminal shipping notice.

<sup>\*\*</sup> Eight shipments were excluded from this variance due to lack of terminal or TVA weights.

### **Additional Observations**

- We observed that when TVA weights are unavailable, terminal weights are also input as TVA weights. In addition, the BSRM stated she is not always informed when TVA weight is unavailable.
- Documentation showed that the most recent material testing of scales was performed in May 2006. However:
  - BC-7 and BC-8 were the only ones to pass. Scales BC-5, BC-6, and BC-13 were material tested but did not pass.
  - BC-3 (barge unload scale) and BC-11(to stockpile) cannot be material tested. Instead, they were compared and adjusted to other belt scales.
  - The train dumper scale cannot be certified.\*
- We were informed that not all scale personnel receive formal training. While newly hired scale personnel receive some formalized training, current personnel receive on-the-job training and refer to scale manuals for problems outside their frame of reference.



<sup>\*</sup>Management previously informed us in a response to Inspection 2005-521I that GAF has facility configuration restraints that currently prohibit material testing of receipt scales. Schedules are being developed to correct these constraints.

### Recommendations

- ◆ The General Manager, Fossil Fuel Supply, should consider:
  - Ensuring the BSRM is informed of all TVA weights and defining the appropriate practice to be followed when no TVA weight is available.
  - Requiring formal training on scale operations for all scale personnel.

