



Westinghouse Electric Company LLC  
Hematite Decommissioning Project  
3300 State Road P  
Festus, MO 63028  
USA

ATTN: Materials Control, ISFSI and  
Decommissioning Branch  
USNRC, Region III,  
2443 Warrenville Road, Suite 210,  
Lisle, IL 60532-4352

Direct tel: 314-810-3355  
E-mail: fusselgm@westinghouse.com  
Our ref: HEM-16-4  
Date: January 7, 2016

Subject: Hematite Decommissioning Project - Report of Trace Investigation of Railcar Shipment Manifest Numbers RW-15-593, RW-15-594, RW-15-595, RW-15-596, RW-15-597 and RW-15-598 (License No. SNM-00033, Docket No. 070-00036)

References: 1) 10 CFR 20, Appendix G

In Reference 1, the U.S. Nuclear Regulatory Commission (NRC) requires shippers to file a written report with the appropriate NRC Region of trace investigations into radioactive material shipments for which a notification or receipt is not received within 20 days after transfer. Reference 1 requires this written report to be submitted within two weeks of completion of the investigation. Enclosures 1 through 6 are written reports for the railcar shipments with the numbers RW-15-593, RW-15-594, RW-15-595, RW-15-596, RW-15-597 and RW-15-598 that were not received within 20 days after transfer.

In summary, Westinghouse Electric Company LLC (Westinghouse) initiated transfer of radioactive material and during transit the shipments were delayed by the railroad company for scheduling reasons. The railcars have been received at the destination.

Please contact Ken Pallagi at 314-810-3353, should you have questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gay M. Fussell', written over a circular stamp or mark.

Gay M. Fussell  
Deputy Director  
Hematite Decommissioning Project

- Enclosure:
- 1) Written Report for Delay in Railcar Shipment Manifest Number RW-15-593
  - 2) Written Report for Delay in Railcar Shipment Manifest Number RW-15-594
  - 3) Written Report for Delay in Railcar Shipment Manifest Number RW-15-595
  - 4) Written Report for Delay in Railcar Shipment Manifest Number RW-15-596
  - 5) Written Report for Delay in Railcar Shipment Manifest Number RW-15-597
  - 6) Written Report for Delay in Railcar Shipment Manifest Number RW-15-598

RECEIVED JAN 11 2016

cc: J. W. Smetanka, Westinghouse  
J. A. Smith, NRC/DUWP/MDB  
M. A. Kunowski NRC Region III/DNMS/MCID  
E. A. Bonano, NRC Region III/DNMS/MCID  
M. M. LaFranzo, NRC Region III/DNMS/MCID

**ENCLOSURE 1**

**Written Report for Delay in Railcar Shipment Manifest Number RW-15-593**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

**Docket No. 070-00036**

## Written Report for Delay in Railcar Shipment Manifest Number RW-15-593

Reporting Regulation: 10 CFR 20, Appendix G, III.E  
NRC License Number: SNM-33  
Site Owner: Westinghouse Electric Company LLC  
Site Name: Hematite Decommissioning Project (HDP)  
Site Location: 3300 State Road P, Festus, MO 63028  
Destination Name: US Ecology Idaho, Inc. (USEI)  
Destination Location: 20400 Lemley Road, Grand View, ID 83624  
Manifest Number: RW-15-593  
Railcar Number: CHUX 290  
Transfer/Departure Date: December 15, 2015  
Destination Arrival Date: January 6, 2016  
Container Volume: 2,743 ft<sup>3</sup>  
Waste Volume: 2,610 ft<sup>3</sup>  
Loaded Container Weight: 282,800 lbs  
Waste Weight: 217,150 lbs  
Contents: Excavated soil  
Radioactivity: U-234: 0.00099 Ci; U-235: 0.0000537 Ci;  
U-238: 0.000421 Ci; Tc-99: 0.00287 Ci;  
Ra-226: 0.0000924 Ci; Th-232: 0.0000910 Ci  
Surface Radiation Level: Less than 0.04 mrem/hr  
Event Summary: Shipment of CHUX 290 took 22 days, exceeding the 20 day threshold for reporting in 10 CFR 20 Appendix G, III.E. During daily tracking of the shipment, HDP was aware that the Railroad interrupted the shipment of CHUX 290 while in transit for scheduling purposes. Railcar CHUX 290 arrived at its destination on January 6, 2016.  
Shipment Tracking: The Hematite Decommissioning Project (HDP) receives via email from the Railroad a railcar status report each day following departure of a shipment. In addition, HDP personnel can log into a Railroad website to obtain the most recent status of a railcar in shipment. Thus, HDP was aware of the location of the railcar and the reasons for scheduling delays. Requests were made of the Railroad in furtherance of the railcar reaching its destination as soon as possible.

**ENCLOSURE 2**

**Written Report for Delay in Railcar Shipment Manifest Number RW-15-594**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

**Docket No. 070-00036**

## Written Report for Delay in Railcar Shipment Manifest Number RW-15-594

Reporting Regulation: 10 CFR 20, Appendix G, III.E  
NRC License Number: SNM-33  
Site Owner: Westinghouse Electric Company LLC  
Site Name: Hematite Decommissioning Project (HDP)  
Site Location: 3300 State Road P, Festus, MO 63028  
Destination Name: US Ecology Idaho, Inc. (USEI)  
Destination Location: 20400 Lemley Road, Grand View, ID 83624  
Manifest Number: RW-15-594  
Railcar Number: CHUX 221  
Transfer/Departure Date: December 15, 2015  
Destination Arrival Date: January 6, 2016  
Container Volume: 2,743 ft<sup>3</sup>  
Waste Volume: 2,610 ft<sup>3</sup>  
Loaded Container Weight: 282,850 lbs  
Waste Weight: 217,550 lbs  
Contents: Excavated soil  
Radioactivity: U-234: 0.00099 Ci; U-235: 0.0000538 Ci;  
U-238: 0.000422 Ci; Tc-99: 0.00288 Ci;  
Ra-226: 0.0000925 Ci; Th-232: 0.0000912 Ci  
Surface Radiation Level: Less than 0.04 mrem/hr  
Event Summary: Shipment of CHUX 221 took 22 days, exceeding the 20 day threshold for reporting in 10 CFR 20 Appendix G, III.E. During daily tracking of the shipment, HDP was aware that the Railroad interrupted the shipment of CHUX 221 while in transit for scheduling purposes. Railcar CHUX 221 arrived at its destination on January 6, 2016.  
Shipment Tracking: The Hematite Decommissioning Project (HDP) receives via email from the Railroad a railcar status report each day following departure of a shipment. In addition, HDP personnel can log into a Railroad website to obtain the most recent status of a railcar in shipment. Thus, HDP was aware of the location of the railcar and the reasons for scheduling delays. Requests were made of the Railroad in furtherance of the railcar reaching its destination as soon as possible.

**ENCLOSURE 3**

**Written Report for Delay in Railcar Shipment Manifest Number RW-15-595**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

**Docket No. 070-00036**

## Written Report for Delay in Railcar Shipment Manifest Number RW-15-595

Reporting Regulation: 10 CFR 20, Appendix G, III.E  
NRC License Number: SNM-33  
Site Owner: Westinghouse Electric Company LLC  
Site Name: Hematite Decommissioning Project (HDP)  
Site Location: 3300 State Road P, Festus, MO 63028  
Destination Name: US Ecology Idaho, Inc. (USEI)  
Destination Location: 20400 Lemley Road, Grand View, ID 83624  
Manifest Number: RW-15-595  
Railcar Number: CHUX 311  
Transfer/Departure Date: December 15, 2015  
Destination Arrival Date: January 6, 2016  
Container Volume: 2,743 ft<sup>3</sup>  
Waste Volume: 2,610 ft<sup>3</sup>  
Loaded Container Weight: 282,400 lbs  
Waste Weight: 216,500 lbs  
Contents: Excavated soil  
Radioactivity: U-234: 0.00087 Ci; U-235: 0.0000470 Ci;  
U-238: 0.000368 Ci; Tc-99: 0.00221 Ci;  
Ra-226: 0.0000912 Ci; Th-232: 0.0000904 Ci  
Surface Radiation Level: Less than 0.04 mrem/hr  
Event Summary: Shipment of CHUX 311 took 22 days, exceeding the 20 day threshold for reporting in 10 CFR 20 Appendix G, III.E. During daily tracking of the shipment, HDP was aware that the Railroad interrupted the shipment of CHUX 311 while in transit for scheduling purposes. Railcar CHUX 311 arrived at its destination on January 6, 2016.  
Shipment Tracking: The Hematite Decommissioning Project (HDP) receives via email from the Railroad a railcar status report each day following departure of a shipment. In addition, HDP personnel can log into a Railroad website to obtain the most recent status of a railcar in shipment. Thus, HDP was aware of the location of the railcar and the reasons for scheduling delays. Requests were made of the Railroad in furtherance of the railcar reaching its destination as soon as possible.



Enclosure 4 to HEM-16-4  
January 7, 2016

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**ENCLOSURE 4**

**Written Report for Delay in Railcar Shipment Manifest Number RW-15-596**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

**Docket No. 070-00036**

## Written Report for Delay in Railcar Shipment Manifest Number RW-15-596

Reporting Regulation: 10 CFR 20, Appendix G, III.E  
NRC License Number: SNM-33  
Site Owner: Westinghouse Electric Company LLC  
Site Name: Hematite Decommissioning Project (HDP)  
Site Location: 3300 State Road P, Festus, MO 63028  
Destination Name: US Ecology Idaho, Inc. (USEI)  
Destination Location: 20400 Lemley Road, Grand View, ID 83624  
Manifest Number: RW-15-596  
Railcar Number: CHUX 305  
Transfer/Departure Date: December 15, 2015  
Destination Arrival Date: January 6, 2016  
Container Volume: 2,743 ft<sup>3</sup>  
Waste Volume: 2,610 ft<sup>3</sup>  
Loaded Container Weight: 282,800 lbs  
Waste Weight: 216,550 lbs  
Contents: Excavated soil  
Radioactivity: U-234: 0.00064 Ci; U-235: 0.0000345 Ci;  
U-238: 0.000268 Ci; Tc-99: 0.00097 Ci;  
Ra-226: 0.0000896 Ci; Th-232: 0.0000897 Ci  
Surface Radiation Level: Less than 0.04 mrem/hr  
Event Summary: Shipment of CHUX 305 took 22 days, exceeding the 20 day threshold for reporting in 10 CFR 20 Appendix G, III.E. During daily tracking of the shipment, HDP was aware that the Railroad interrupted the shipment of CHUX 305 while in transit for scheduling purposes. Railcar CHUX 305 arrived at its destination on January 6, 2016.  
Shipment Tracking: The Hematite Decommissioning Project (HDP) receives via email from the Railroad a railcar status report each day following departure of a shipment. In addition, HDP personnel can log into a Railroad website to obtain the most recent status of a railcar in shipment. Thus, HDP was aware of the location of the railcar and the reasons for scheduling delays. Requests were made of the Railroad in furtherance of the railcar reaching its destination as soon as possible.

Enclosure 5 to HEM-16-4  
January 7, 2016

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**ENCLOSURE 5**

**Written Report for Delay in Railcar Shipment Manifest Number RW-15-597**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

**Docket No. 070-00036**

## Written Report for Delay in Railcar Shipment Manifest Number RW-15-597

Reporting Regulation: 10 CFR 20, Appendix G, III.E  
NRC License Number: SNM-33  
Site Owner: Westinghouse Electric Company LLC  
Site Name: Hematite Decommissioning Project (HDP)  
Site Location: 3300 State Road P, Festus, MO 63028  
Destination Name: US Ecology Idaho, Inc. (USEI)  
Destination Location: 20400 Lemley Road, Grand View, ID 83624  
Manifest Number: RW-15-597  
Railcar Number: CHUX 304  
Transfer/Departure Date: December 15, 2015  
Destination Arrival Date: January 6, 2016  
Container Volume: 2,743 ft<sup>3</sup>  
Waste Volume: 2,610 ft<sup>3</sup>  
Loaded Container Weight: 283,000 lbs  
Waste Weight: 217,550 lbs  
Contents: Excavated soil  
Radioactivity: U-234: 0.00064 Ci; U-235: 0.0000346 Ci;  
U-238: 0.000269 Ci; Tc-99: 0.00098 Ci;  
Ra-226: 0.0000901 Ci; Th-232: 0.0000901 Ci  
Surface Radiation Level: Less than 0.04 mrem/hr  
Event Summary: Shipment of CHUX 304 took 22 days, exceeding the 20 day threshold for reporting in 10 CFR 20 Appendix G, III.E. During daily tracking of the shipment, HDP was aware that the Railroad interrupted the shipment of CHUX 304 while in transit for scheduling purposes. Railcar CHUX 304 arrived at its destination on January 6, 2016.  
Shipment Tracking: The Hematite Decommissioning Project (HDP) receives via email from the Railroad a railcar status report each day following departure of a shipment. In addition, HDP personnel can log into a Railroad website to obtain the most recent status of a railcar in shipment. Thus, HDP was aware of the location of the railcar and the reasons for scheduling delays. Requests were made of the Railroad in furtherance of the railcar reaching its destination as soon as possible.

Enclosure 6 to HEM-16-4  
January 7, 2016

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**ENCLOSURE 6**

**Written Report for Delay in Railcar Shipment Manifest Number RW-15-598**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

**Docket No. 070-00036**

## Written Report for Delay in Railcar Shipment Manifest Number RW-15-598

Reporting Regulation: 10 CFR 20, Appendix G, III.E  
NRC License Number: SNM-33  
Site Owner: Westinghouse Electric Company LLC  
Site Name: Hematite Decommissioning Project (HDP)  
Site Location: 3300 State Road P, Festus, MO 63028  
Destination Name: US Ecology Idaho, Inc. (USEI)  
Destination Location: 20400 Lemley Road, Grand View, ID 83624  
Manifest Number: RW-15-598  
Railcar Number: CHUX 272  
Transfer/Departure Date: December 15, 2015  
Destination Arrival Date: January 6, 2016  
Container Volume: 2,743 ft<sup>3</sup>  
Waste Volume: 2,610 ft<sup>3</sup>  
Loaded Container Weight: 282,850 lbs  
Waste Weight: 216,600 lbs  
Contents: Excavated soil  
Radioactivity: U-234: 0.00064 Ci; U-235: 0.0000345 Ci;  
U-238: 0.000268 Ci; Tc-99: 0.00097 Ci;  
Ra-226: 0.0000897 Ci; Th-232: 0.0000897 Ci  
Surface Radiation Level: Less than 0.04 mrem/hr  
Event Summary: Shipment of CHUX 272 took 22 days, exceeding the 20 day threshold for reporting in 10 CFR 20 Appendix G, III.E. During daily tracking of the shipment, HDP was aware that the Railroad interrupted the shipment of CHUX 272 while in transit for scheduling purposes. Railcar CHUX 272 arrived at its destination on January 6, 2016.  
Shipment Tracking: The Hematite Decommissioning Project (HDP) receives via email from the Railroad a railcar status report each day following departure of a shipment. In addition, HDP personnel can log into a Railroad website to obtain the most recent status of a railcar in shipment. Thus, HDP was aware of the location of the railcar and the reasons for scheduling delays. Requests were made of the Railroad in furtherance of the railcar reaching its destination as soon as possible.