

DEPARTMENT OF NATURAL RESOURCES

June 14, 2002

Mr. Bob McWilliams
3400 Kathleen
Festus, MO 63028

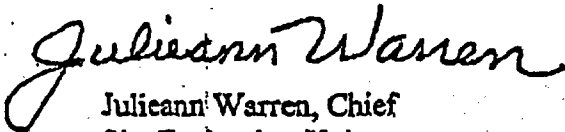
Dear Mr. McWilliams:

Enclosed, please find chronology of events for former Nuclear Fuel Processing facility near Hematite in Jefferson County, Missouri. This chronology is based on information that the Department of Natural Resources is aware of and has record of in our files.

If you have any questions or need additional information please do not hesitate to contact me at (573) 751-8629 or P.O. Box 176, Jefferson City, MO 65102-0176.

Sincerely,

HAZARDOUS WASTE PROGRAM



Julieann Warren, Chief
Site Evaluation Unit

JW:kc

Enclosure

Chronology The Hematite Nuclear Fuel Facility

1955 Mallinckrodt purchased over 200 acres of farmland on which the plant sits.

1956 The plant became operational producing uranium for use in the Navy nuclear fuel program.

1961 Ownership of plant was transferred to United Nuclear Corporation.

During the late 1950s through the early 1960s, when owned by Mallinckrodt and United Nuclear, radioactive contaminated materials were buried in 40 unlined pits.

1970 United Nuclear Corporation and Gulf Nuclear Corporation entered in a joint venture forming Gulf United Nuclear Fuels Corporation, which owned and operated the facility until the Spring of 1973.

1973 United Nuclear Corporation closed the plant and began decommissioning.

1974 Combustion Engineering purchased the property and began manufacturing fuel rods for commercial nuclear reactors.

1982 Radiation Management Corporation (RMC) under contract with the Nuclear Regulatory Commission conducted a radiological evaluation of the burial pits. The evaluation concluded that little or no thorium was present near the surface. The results indicated low level surface contamination that may have resulted from burial activities or from past stack emission. The highest surface level U-234 was 47pCi/g. Subsurface results from burial pits showed the highest activity to be U-234 400 pCi/g. Radium and thorium did not exceed background. Radioactivity exceeding drinking water standards was found in two boreholes in the burial area. However, RMC's overall conclusion was that the buried radioactive material was relatively stable and posed no immediate threat to human health or the surrounding environment.

1982 increased beta activity was detected in a groundwater monitoring well by NRC contractor.

1989 Combustion Engineering was acquired by Asea Brown Boveri and operated as ABB/Combustion Engineering.

1990 Ecology and Environment under contract with EPA Region VII conducting a Preliminary Assessment (PA). The PA report concluded that the radiation contamination might present a risk to those using groundwater for drinking in the area. It also concluded that there is a risk of radiation releases to the surface water and air pathways. The PA recommended a Site Inspection.

1991 EPA deferred any action at the site because the facility was conducting further groundwater investigation with NRC oversight.

Chronology

Page Two

In April 1996 the NRC contacted the Department of Natural Resources regarding the Hematite facility. The NRC expressed concerns about the groundwater monitoring and sampling program at the facility. The NRC wanted to know if the department was aware of the site and/or involved in the investigation of the groundwater contamination at the site. As a result of the NRC contact, the department initiated an investigation of groundwater issues at the site.

In May and September 1996 the department collected groundwater sample onsite and from five private wells off-site. The report of findings issued by the department in November 1996 concluded that shallow groundwater at the facility shows significant impact from radionuclides and Volatile Organic Compounds (VOC) such as TCE and PCE. The Report recommended that a complete characterization of the alluvial and bedrock aquifers in the vicinity of the site be conducted. Annual monitoring of private drinking water wells in the area. VOC sampling at all monitoring wells on a quarterly basis; sediment and surface water sampling for VOCs and radionuclides in Joachim Creek and its tributaries; complete characterization of the materials in the burial pits; implementation of a long-term groundwater, surface water and sediment sampling.

In September 1996 Gateway Environmental Associates, Incorporated, completed a report for ABB/CE on the investigation to determine the source of Technetium-99 in groundwater monitoring wells 17 and 17B. The study was conducted to satisfy NRC as a condition of their license.

In May 1997 in response to the departments 1996 investigation Gateway Environmental on behalf of ABB/CE submitted A Regional and Local Geologic Summary of Hematite site.

In October 1997 A Hydrogeologic Investigation and Quarterly Monitoring Work Plan was submitted to the department and the NRC.

In April 1998 A revised Work plan was submitted in response to the department and NRC's comments.

In November 1998 first quarter of sampling was conducted.

In February 1999 second quarter of sampling was conducted.

In May 1999 third quarter of sampling was conducted.

In August 1999 fourth quarter of sampling was conducted.

In April 2000 Westinghouse Electric Company bought the facility.

In September, 2000 the department forwarded extensive comments on the Hydrogeologic Investigation and Groundwater, Soil and Stream Characterization Report and the Second, Third and Fourth Sampling Event Reports.

In September 2000 the department completed a Site Inspection Report for the Hematite Site under a cooperative agreement with EPA Region VII. Funds from this agreement were also used by the department to provide oversight for ABB/CE Hydrogeologic Investigation and quarterly monitoring events.

In March 2001 the department personnel toured the facility while it was still in operation. This was the department's first informal negotiation with Westinghouse about entering into an agreement with the department to assure state oversight of up-coming characterization and decommissioning of the facility.

May 2001 the facility ceased operations.

In July 2001 the department attended a meeting between the NRC and Westinghouse.

In August 2001 the department met with the NRC. The NRC indicated they wanted the department to be a co-regulator to ensure the state's interest in ensuring protection of public health and the environment were addressed. NRC indicated they only had jurisdiction of the radiological contamination and the department would have to use its authority to ensure non-radiological contaminants were also addressed.

In December 2001 the department met with Westinghouse to negotiate a Letter of Agreement to cover the department's oversight cost until a more formal Abatement Order on Consent could be negotiated.

In December 2001 private well sampling by the Missouri Department of Health and Senior Services (DHSS) found VOC contamination in private well east of the facility. DHSS notified the department. The department notified Westinghouse verbally followed up by letter to take appropriate action.

January, 2002 DHSS and Westinghouse re-sampled the well with contamination and 23 other wells south and east of the facility.

Five additional private wells were found contaminated with VOC. Westinghouse installed carbon filtration systems on all affected wells.

In February 2002 Westinghouse submitted draft Remedial Investigation/Feasibility (RI/FS) Study Work Plan to the department for review.

Chronology

Page Four

April 3, 2002, the NRC held a public meeting regarding the decommissioning process. The issue of additional private well testing and the quality of Westinghouse's data were raised along with the issue of holding people up to the public water supply.

April 15, 2002, the department's project geologist met with Westinghouse consultant's geologist to discuss the scope and expedite the hydrogeologic portion of the RI/FS.

April 16 and 17 the department and DHSS collected samples from 51 additional private wells within one mile North and West of the Facility and two miles South and East of the Facility. Also, the department collected ten split samples from the 24 wells being re-sampled by Westinghouse as Quality assurance check.

Results from this sampling event showed no additional contaminated wells.

May 2, the department and DHSS met with the Jefferson County commissioners, Jefferson County PWS #5, Jefferson County Health Department, Chuck Banks from Rep. Gephardt office and Westinghouse.

Mid-May 2002 field activities for the hydrogeologic investigation were initiated under the department's oversight.

Westinghouse has agreed to pay to sample additional private wells in the one-mile North and West and two miles South and East of the facility.

May 30, 2002, a public meeting was held at the Armory in Festus.