

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

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## Subject: Notification of Proposed Well Abandonment Activities Hematite Decommissioning Project Hematite, Missouri

Dear Mr. Gilstrap and Ms. Warren:

Westinghouse Hematite Decommissioning Project (HDP) is requesting authorization to abandon nine monitoring wells at the site. These wells have been identified as being either leachate wells or hybrid wells and replacement wells were installed in September 2009. Monitoring wells designated as leachate wells are located within the potential contaminant source areas of the facility and have their screened intervals within the silty clay overburden. Hybrid wells are monitoring wells constructed such that the screened interval intercepts the silty clay overburden as well as the lower sand/gravel units. Evaluation of these monitoring wells has led Westinghouse to conclude that these wells, when installed in areas where the silty clay overburden is impacted, have the potential to function as vertical migration pathways for contamination to reach the sand and gravel layer that overlies the bedrock.

In September 2009, eleven monitoring wells (i.e., GW-AA, GW-BB, GW-D, GW-S, GW-T, GW-U, GW-V, GW-W, GW-X, GW-Y, and GW-Z) were installed in the sand/gravel water bearing zone. All but two of these new wells (GW-AA and GW-BB) were located to serve as paired wells and eventual replacements for the existing leachate or hybrid wells. In general, for these paired wells in which radionuclides were detected, the leachate/hybrid wells exhibited radioactivity higher than the wells with screens installed completely within the sand/gravel. Based on the analytical results and the proximity of the paired wells, the elevated radioactivity in the hybrid wells is attributed to contaminated water in the overlying silty-clay formation. Due to this, it would be beneficial to remove the nine leachate/hybrid wells and continue monitoring the new wells.

Therefore, Westinghouse is proposing the abandonment of monitoring wells BD-14, DM-02, EP-20, NB-31, NB-33, NB-81, PL-06, WS-13 and WS-17B. Upon approval to remove the wells, the abandonment activities will be performed in accordance with the Missouri Code of

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State Regulations 10 CSR 23 Missouri Well Construction Rules. Figure 1 depicts the locations of the nine monitoring wells to be abandoned and the replacement wells. The installation details of the nine leachate/hybrid monitoring wells to be abandoned are shown in Table 1.

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Westinghouse plans to perform the well abandonment prior to the beginning of building demolition and the 1Q2011 IGMP sampling, and is therefore requesting an expedited approval of the decommissioning.

If you have any questions or are in need of any additional information, please feel free to contact Kevin Harris, Environmental Health & Safety Manager at (314) 810-3375.

Sincerely,

E. Kurt Hackmann Director, Hematite Decommissioning Project

cc: Tim Duggan, Esquire, Missouri Attorney General Office Michele Gutman
Paul Michalak, NRC
John J. Hayes, NRC
Joe Smetanka, WEC
Kevin Harris, WEC

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Figure 1 Monitoring Well Locations

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Well ID	Install Year	Easting	Northing	Surface Elev.	Top of Casing Elev. (Surveyed)	Bottom Elev.	Well Depth bgs (ft)	Screen Length (ft)	Screened Material	Paired Well
BD-14	2004	827250.000	864736.000	433.770	433.480	401.199	32.0	5.0	Hybrid	GW-S
DM-02	2004	827470.530	864950.544	435.340	437.256	401.783	33.0	5.0	Hybrid	GW-T
EP-20	2004	827331.564	864615.378	432.750	434.550	402.323	30.0	10.0	Leachate	GW-U
GW-AA	2009	826660.883	864602.907	431.215	433.655	403.755	30.0	1.0	Sand	N/A
GW-BB	2009	827962.009	865018.813	427.877	430.267	400.867	29.5	3.0	Sand	N/A
GW-D	2009	827548.735	864815.463	433.391	435.911	399.711	36.3	1.0	Sand	WS-17B
GW-S	2009	827268.936	864725.926	433.917	436.427	404.527	32.0	1.0	Sand	BD-14
GW-T	2009	827479.112	864950.411	435.231	437.811	400.111	37.8	2.0	Sand	DM-02
GW-U	2009	827289.894	864591.167	432.869	435.479	401.579	34.0	2.0	Sand	EP-20
GW-V	2009	827575.377	864706.789	433.95	436.440	402.540	34.0	3.0	Sand	NB-31
GW-W	2009	827982.699	864876.443	430.361	432.851	399.251	33.7	4.0	Sand	NB-81
GW-X	2009	827051.019	864367.547	434.195	436.695	402.795	34.0	7.0	Sand	PL-06
GW-Y	2009	827381.201	864484.543	433.628	436.118	400.718	35.5	2.0	Sand	NB-33
GW-Z	2009	827369.162	864741.986	433.672	436.092	402.192	34.0	3.0	Sand	WS-13
NB-31	2004	827582.733	864713.584	434.010	435.770	401.812	32.0	10.0	Hybrid	GW-V
NB-33	2004	827369.678	864489.206	433.297	435.300	402.298	31.0	10.0	Hybrid	GW-Y
NB-81	2004	827967.425	864884.498	430.640	432.600	396.777	33.5	5.0	Hybrid	GW-W
PL-06	2004	827061.012	864366.848	435.085	436.033	401.085	34.0	10.0	Hybrid	GW-X
WS-13	pre-1996	827319.000	864784.250	434.020	435.800	415.100	17.7	10.0	Hybrid	GW-Z
WS-17B	1996	827553.224	864809.122	433.304	435.392	412.850	20.5	13.0	Leachate	GW-D

## Table 1Well Construction Information

Shaded wells are scheduled for abandonment.