FILE

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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August 18, 1999

Mr. Steve Padovani
USEPA
77 West Jackson Blvd.
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Subject: UPDATE ON OPERATION ISSUES AT OECI

Dear Mr. Padovani:

The Department of Natural Resources (DNR) has reviewed the May 20, 1999 memorandum and subsequent memorandums summarizing the potential future changes to the Oconomowoc Groundwater Treatment Facility operations and offers the following comments.

A. Sludge Delisting – The DNR, having been delegated the hazardous waste program, has reviewed this situation and has found it difficult to be able to Delist the sludge generated from the treatment of the contaminated groundwater. The DNR acknowledges that repeated testing of the waste has indicated that it passes the hazardous waste characteristic test. The September 20, 1990 rod envisioned an ion exchange unit to be used for metal and Cyanide removal. The rod specifically called out the resin from such a treatment unit as requiring RCRA landfill disposal because it would contain an F006 waste. Currently the groundwater treatment plant uses a metals precipitation process, but the same contained in logic could apply to the sludge waste stream. The DNR recommends a through review of the ROD. Many waste streams seem to be identified in the ROD and it may be fair to say that the metals contamination may or may not have come from a particular waste stream. An ESD changing the hazardous waste ARAR to a TBC may be reasonable at this time. My further discussions with people familiar with the State's Hazardous Waste Program leads me to conclude that the delisting process may not have been a specific item delegated to the state of Wisconsin. It may be wise at this time to request the review services of Mr. Dave Parsons of DNR's Central Office Hazardous Waste Program and Judy Kleiman of EPA Region V's Hazardous Waste Program.

B. Cyanide Destruction Process – Attached is a spreadsheet of test results showing Cyanide hits in the influent stream, monitoring wells and extraction wells. The DNR has reviewed this information and at a minimum would require an in-line Cyanide Monitoring System with weekly testing The Cyanide Monitor reviewed can detect in-line Cyanide down to 100 PPB. The question is does the existing treatment train without the first stage Cyanide destruction process provide Cyanide removal for levels >40 ppb and<100ppb? Or are we at a point in treating the groundwater where influent concentrations of Cyanide will never be above 40 ppb? At 100 ppb or higher a modified Cyanide treatment process would activate. Further review of the best way to treat Cyanide in the influent is needed and the DNR is willing to consult with you on this matter. Review of the scaling problems in lieu of the polymer system changes is needed to determine if scaling is truly caused by the sodium hypochlorite or excess polymer use.

C. Discharge Limitations – The DNR agrees that further review of the operation on extraction well 3 is need.

The DNR advises a cautious approach to changing the discharge location of the effluent. The current wet conditions in the wetland may be an anomaly as monthly precipitation amounts for each of the last few months have been above average. The actual Creek is at least 150 ft. further into the wetlands, so the discharge point would have to be moved at least that far for a creek discharge. Davy Creek in the Superfund section transitions from a bed and bank creek to a level spread area prior to becoming a bed and bank creek again in the state remediation section. Thus, where is the Creek and what is the flow in the Creek will have a bearing on discharge limits granted for a new discharge location. The DNR recommends a flow study of Davy Creek to determine the low flow volume of the re-established creek. If the discharge location needs to be relocated and off property piping on high ground is needed, then the DNR highly recommends that the discharge piping system be a double pipe configuration with leak detection capabilities. This recommendation is made due to the fact that all residents in Ashippun have individual water wells for consumption and other uses.

The DNR recommends further review of a treated groundwater discharge to the sanitary sewer system.

D. Remote Operations - The DNR agrees with the recommendations and approach and also cautions that labor savings may not be as great as may be anticipated.

Other Issues – The DNR is concerned about the adequacy of the current Monitoring Well Network and recommends a review of this Network. Some monitoring wells are never sampled and they should be properly abandoned. Some monitoring wells are dry and should either be drilled deeper or abandoned. Should some monitoring wells be reconstructed into extraction wells?

The DNR looks forward to resolving these issues. If you have any questions you can call me at the number below.

Sincerely,

Paul L Kozol

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Remediation and Redevelopment Engineer
South Central Region
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C: Craig Evans – USACOE
Steve Brossart – USACOE
James Chang – APL
Dave Hantz – WT/2
Dave Parsons – WA/3
Judy Kleiman - EPA

CYANIDE RESULTS
oeci treatment plant
Approximate Time Period 12/12/96 to3/16/99

DATE	INFLUENT CYANIDE	EFFLUENT CYANIDE	DISCHARGE LIMIT	INFLUENT FREE CYANIDE	EFFLUENT FREE CYANIDE	DISCHARGE LIMIT
3/24/97	59	ND	40	NT	ND	MONITOR
7/9/98	7	ND	40	NT	NT	MONITOR
7/21/98	9	ND	40	NT	NT	MONITOR
7/29/98	5	ND	40	NT	NT	MONITOR
8/4/98	3.3	2.4	40	NT	NT	MONITOR
8/25/98	9	ND	40	ND	ND	MONITOR
9/29/99	10	10	40	ND	3	MONITOR
10/7/98	4.9	6	40	ND	ND	MONITOR
12/21/98	7	5	40	4	ND	MONITOR

ONLY DATES WHERE POSITIVE RESULTS OBTAINED ARE SHOWN

ALL RESULTS IN PPB

NT = NOT TESTED
ND = NOT DETECTED

CYANIDE IN MONITORING WELLS

CYANIDE/FREE CYANIDE

ONLY SELECTED RESULTS SHOWN

QUARTER	MW12BP	MW12DP	MW06P	MW05DP	MW02DP
1ST 96	440/NT	ND/NT	ND/ND	NT/ND	NT/ND
3RD 97	3.3/NT	6.7/NT	3.2/NT	5.8/NT	2.3/NT
3RD 99	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND

CYANIDE IN EXTRACTIION WELLS

CYANIDE/FREE CYANIDE

ONLY SELECTED RESULTS SHOWN

DATE	EW-1	EW-2	EW-3	EW-4	EW-5
Mar-99	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND
Jun-99	ND/ND	10/ND	ND/ND	ND/ND	10/8