

PDR-1  
LPDR  
WM-10(2)

WM Record  
101

WM Project 10  
Docket No. \_\_\_\_\_  
PDR   
XLPDR  (B)

FEB 18 1987

Distribution:

(Return to WM, 623-SS)

✓ 101.0/NC/87/01/21

- 1 -

MEMORANDUM FOR: Philip S. Justus, Acting Chief  
Geotechnical Branch  
Division of Waste Management

FROM: Neil M. Coleman, Hydrogeologist  
Hydrology Section  
Geotechnical Branch  
Division of Waste Management

SUBJECT: REVIEW OF GAO REPORT ENTITLED "NUCLEAR WASTE - UNRESOLVED  
ISSUES CONCERNING HANFORD'S WASTE MANAGEMENT PRACTICES"  
(GAO/RCED-87-30) (NOVEMBER 1986)

This memorandum transmits to you an enclosed copy and preliminary review of a report recently received from the US General Accounting Office (GAO). In October 1985, Senator John Glenn and Representative Mike Synar requested that the GAO review DOE's waste management practices at Hanford to determine how the Department complies with both RCRA and CERCLA. I have recently received a copy of this report and performed a preliminary review of the GAO's findings. The following points summarize the GAO's principal findings:

- Hanford has been flagging in implementing both RCRA and CERCLA, and has not identified all CERCLA sites nor has it identified all units that should be regulated under RCRA. As stated in the report, "Hanford does not know - nor can it ensure the regulatory agencies - that it is appropriately managing and/or disposing of its radioactive, hazardous, and mixed waste."
- DOE must comply with both the RCRA and CERCLA statutes but is exempt from RCRA when compliance would be inconsistent with the Atomic Energy Act. Hanford officials believe that RCRA's Atomic Energy Act exclusions allow them to dispose of byproduct waste directly to the soil without a permit, while at the same time Hanford has begun to apply for permits to dispose of similar, non-byproduct waste. In developing its RCRA applications, Hanford excluded numerous low-level waste streams and disposal units it believes are exempt from RCRA and state regulation. EPA and state officials expressed concern about a number of liquid waste streams that Hanford excluded; they identified the PUREX process condensate and PUREX chemical sewer as two of particular concern. These two waste streams also illustrate the confusion caused by RCRA's Atomic Energy Act exclusions.
- Hanford does not meet RCRA's groundwater monitoring requirements at four hazardous or mixed waste units; other units also may not comply.

8705080086 870218  
PDR WASTE  
WM-10 PDR

2386

87020048/5

The GAO report is significant with respect to both high- and low-level NRC licensing activities at Hanford, which include the Basalt Waste Isolation Project (BWIP) and the Richland Low-Level Waste Disposal Facility (LLWDF). Contaminants released to the subsurface by DOE's current and previous waste disposal activities may complicate subsurface monitoring of radioactive contaminants in the vicinity of the BWIP and LLWDF sites. Many of DOE's disposal activities have been conducted within or in proximity to the Separations (200) Areas. The defined Reference Repository Location (RRL) for the BWIP site fully encompasses the 200 West Area and the Richland LLWDF is located less than one mile from the southwest corner of the 200 East Area.

A number of discussions in the report dealt with Hanford's high-level waste storage tanks. For example, Hanford did not include the single-shell high-level waste tanks in its CERCLA Phase I assessment because they were not empty. As stated in the report, "EPA headquarters officials told [GAO] that Hanford should have included the tanks because some have, or were suspected of having, leaked, which qualifies them as CERCLA sites." Although Hanford officials have stated that the contamination stayed in the soil underlying the tanks and did not contaminate the groundwater, it was noted that Hanford does not have groundwater monitoring wells around these tanks. Instead, Hanford depends on a system of hundreds of "dry wells" around the tanks for monitoring purposes. Although Hanford continues to evaluate permanent disposal options for the single-shell tank wastes, its plans could be affected by actions it may have to take to comply with RCRA Subtitle I.

The GAO report also noted that Hanford excluded at least 200 unplanned (accidental) release sites from its CERCLA Phase I assessment. The GAO noted that Hanford officials apparently could not estimate how many unplanned release sites exist over the entire Hanford Reservation.

Finally, the GAO report contains a number of specific recommendations. These are cited below:

- ° The Secretary of Energy should require Hanford to report to EPA and Washington State all sites and units previously and currently used to treat, store, and dispose of waste, including those considered to be byproduct and those contaminated by unplanned releases.
- ° Hanford should also report to EPA and Washington State the regulatory authority (RCRA, CERCLA, or the Atomic Energy Act) that controls the management, disposal, and/or corrective actions for all sites and units identified.
- ° The GAO believes the Congress should consider whether RCRA's Atomic Energy Act exclusions are still appropriate.

101.0/NC/87/01/21

- 3 -

Please contact me at ext. 74131 if you have any questions regarding this memorandum or the enclosure.



Neil M. Coleman, Hydrogeologist  
Hydrology Section  
Geotechnical Branch  
Division of Waste Management

Enclosure: As Stated

FEB 18 1987

- 4 -

OFFICIAL CONCURRENCE AND DISTRIBUTION RECORD

MEMORANDUM FOR: Philip S. Justus, Acting Chief  
Geotechnical Branch  
Division of Waste Management

FROM: Neil M. Coleman, Hydrogeologist  
Hydrology Section  
Geotechnical Branch  
Division of Waste Management

SUBJECT: REVIEW OF GAO REPORT ENTITLED "NUCLEAR WASTE - UNRESOLVED  
ISSUES CONCERNING HANFORD'S WASTE MANAGEMENT PRACTICES"  
(GAO/RCED-87-30) (NOV. 1986)

DATE: 87/02/ FEB 18 1987

DISTRIBUTION *w/o enclosure*

* WM/SF	NMSS RF	RBrowning, WM	MBell, WM
JBunting, WMPC	PJustus, WMGT	MKnapp, WMLU	JLinehan, WMRP
JGreeves, WMEG	MFliegel, WMGT	TVerma, WMGT	RJohnson, WMRP
NColeman, WMGT/rf	PHildenbrand, WMRP	PDR	WMGT/rf

CONCURRENCES

ORGANIZATION/CONCURREE	INITIALS	DATE CONCURRED
WM/GT N Coleman	<i>NMC</i>	87/02/17
WM/GT T Verma	<i>TVN</i>	87/02/17
WMGT M Fliegel	<i>M Fliegel</i>	87/02/18

\* WM R/F has enclosure on file

*orig. not rec'd  
By OCC*

DISTRIBUTION LIST

RBrowning  
MBell  
PJustus  
JLinehan  
RJohnson  
MFieqel  
TVerma  
PHildenbrand  
HLefevre  
MBlackford  
AIbrahim  
KMcConnell  
DBrooks  
TMo  
LRiddle  
KChang  
JBuckley  
NColeman/rf  
WMGT/rf  
PDR (File 101.0)

Photo - ...