



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
759 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

MI

JUL 26 1985

Michigan Department of Public Health  
ATTN: George W. Bruchmann, Chief  
Division of Radiological Health  
3500 North Logan  
Lansing, Michigan 48909

Gentlemen:

This letter summarizes our understanding of the agreement for radiological water monitoring at the DNR and SCA sites in Kawkawlin, Michigan, made in the June 25, 1985, meeting attended by Eric Schwing and Chad McIntosh of your office, Edward Golson of the Bay County Health Department, and Martin Schumacher and Steve Rozak of this office.

Encapsulation measures consisting of a slurry wall and clay cap were taken on the two adjacent sites pursuant to a prior agreement between the State of Michigan and Waste Management Incorporated (WMI), current owner of the SCA site, in order to isolate chemical contaminants from the environment. Under that agreement, the Michigan Department of Natural Resources (DNR) and WMI are to monitor encapsulation effectiveness by sampling for chemical contaminants twice a year for a period of 20 to 30 years. The samples also analyzed for gross alpha and gross beta. Both sites also contain low levels of thorium in thorium-magnesium slag which is expected to be insoluble and relatively immobile. The radiological monitoring to be undertaken by the Michigan Division of Radiological Health (DRH) and the NRC pursuant to the June 25, 1985, agreement is intended to independently verify this assumption.

The selected sampling locations, which are listed in Attachment 1 and depicted in Attachment 2, include ten wells on the SCA property, four wells on the DNR property and four surface water samples from lagoons adjacent to the two sites. The four DNR wells and six of the SCA wells were installed specifically to monitor slurry wall performance.

DRH-NRC samples will be taken annually and will be timed to coincide with the anticipated November sampling of the wells by DNR and WMI. It was agreed that these samples will normally be taken and split by MPH with one of the splits forwarded to Region III NRC or to the NRC reference laboratory in Idaho Falls. DRH expects to filter and run a gamma isotopic analysis of the filtrate. The NRC will filter and run gross alpha, gross beta, and a gamma scan on both fractions of its split and an isotopic analysis for thorium in the filtrate if gross alpha activity exceeds 5 pCi/liter.

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It was also agreed to analyze samples from three private drinking water wells to be chosen from the seven nearby wells identified and sampled in July 1983, provided that they are still available. Mr. Golson, who agreed to collect the samples, indicated that private wells in the vicinity are becoming scarce as more residents are being connected to public water supplies.

While no decision was made at June 25, meeting as to the duration of the independent sampling program, it was expected to run at least three years before making any decision to terminate or reduce sampling frequency. If warranted by the results, it may be acceptable at that time to accept the monitoring done by DNR and WMI together with occasional independent monitoring by DRH and/or the NRC.

Please feel free to contact me or Martin Schumacher (312-790-5514) who is the cognizant person on my staff for further discussion of this matter. We appreciate the opportunity to work with you.

Sincerely,

  
W. D. Shafer, Chief

Emergency Preparedness and  
Radiological Protection Branch

Enclosures: As stated

cc w/enclosures:

D. Schultz, Michigan Department  
of Natural Resources  
D. Sweeney, Waste Management  
Incorporated  
D. A. Cool, USNRC  
R. A. Lickus, USNRC  
B. A. Berron, USNRC  
E. Golson, R.S., M.P.H.  
Bay County Department of Health

# ATTACHMENT 1

## Description of Water Sampling Locations

<u>Location*</u>	<u>Description</u>
SP-1	Well inside DNR slurry wall
SP-2	Well outside (west) DNR slurry wall
SP-3	Well outside (north) DNR slurry wall
SP-4	Well outside (east) DNR slurry wall
MW-43	Well between DNR and SCA slurry walls
MW 12	Well near boundary between DNR and SCA sites
INS-1	Well inside SCA slurry wall (south)
UP-1	Well outside SCA slurry wall (south)
INS-2	Well inside SCA slurry wall (west)
DWN-3	Well outside SCA slurry wall (west)
INS-3	Well inside SCA slurry wall (north)
DWN-2	Well outside SCA slurry wall (north)
MW-15	Well outside and west of SCA slurry wall
MW-18	Well outside and east of SCA slurry wall
L1	Surface water from lagoon north of DNR slurry wall
L2	Surface water from lagoon between DNR and SCA slurry walls
SW-17	Surface water from lagoon south of SCA slurry wall
L3	Surface water from lagoon near Beaver Road

\* Location designations except L1, L2, and L3 are those used by WMI and DNR.