

45-8724

# OHIO DEPARTMENT OF HEALTH

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Director of Health

March 28, 1994

Mr. Timothy C. Johnson, Section Leader  
Materials Decommissioning Section  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Johnson:

Subject: OHIO DEPARTMENT OF HEALTH COMMENTS TO  
CHEMETRON SITE REMEDIATION PLAN

Attachment 1 to this reply contains general comments applicable to Chemetron. Attachment 2 contains comments specific to the Chemetron Site Remediation Plan.

Sincerely,

Robert E. Owen, Chief  
Bureau of Radiological Health

REO/HBB/hb  
File: Chemetrn.nrc

Attachments

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To: Timothy C. Johnson, NRC

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pc: Kathy Edwards, Mayor, Newburgh Heights  
Gary Shear, NRC-Reg. III  
William Skowronski, OEPA  
Jane Harf, OEPA  
Katherine Jones, OEPA  
Todd Brady, Cuyahoga County Board of Health  
Lou Ellen Fairless, ODH  
Roger L. Suppes, ODH  
Stephen M. James, ODH/OEPA  
Harvey Brugger, ODH/Bureau Files

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bc: Graham Mitchell, OEPA/SWDO-FFO

To: Timothy C. Johnson,  
NRC - Headquarters

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ATTACHMENT 1  
March 28, 1994

Subject: OHIO DEPARTMENT OF HEALTH GENERAL COMMENTS TO  
CHEMETRON SITE REMEDIATION PLAN

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I. PROLIFERATION OF LOW-LEVEL STORAGE SITES IN OHIO

We are concerned that Ohio will have many low-level waste reconsolidation cells to monitor and regulate, by virtue of the NRC decommissioning process that would allow cells on-site containing material in excess of NRC surface contamination guidelines. We believe that preference should be given to the removal of materials to a licensed repository, rather than relying on institutional controls to prevent these cells from being inadvertently reopened and the contamination scattered.

II. MANAGED CARE OF A SITE

- A. The ODH believes that the NRC should move away from the concept of "unrestricted use" of a decommissioned site as a sole option; and toward managed care that would be effective for the time required for that site to have restricted use.
- B. A site should be released with the NRC imposed restrictions on the licensee that limits the site to safe use given the level of cleanup attained and the use proposed.
- C. ALARA cleanup should be the goal, thus allowing a site to be returned to a less than pristine state provided the appropriate controls, including financial surety for performance of long-term managed care, were in place.
  1. The NRC should not terminate the license, but rather continue to ensure that the appropriate controls are in place and that the institutional restrictions are working. This function could be transferred to the radiation control authority of an agreement (with the NRC) state.
  2. The NRC (or by agreement the state radiation control agency) should continue to monitor whether a cell is functioning or deteriorating; losing its cap to erosion, leaching out of contamination to groundwater, damaged by flooding, earthquake and other natural occurrences. The state environmental protection agency should do likewise for hazardous and solid waste constituents.

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### III. UNIFORMITY OF CONTAMINATION

- A. Prior to allowing either restricted or unrestricted use, the NRC should determine that contamination left before a clean dirt layer is applied is uniform; that is, no hot spots exceeding the value agreed upon.
  - 1. Contaminated materials should not be put into the cell that exceed an agreed upon value.
  - 2. No blending of materials to achieve the agreed upon value should be allowed.
  - 3. Materials contaminated in excess of the agreed upon value for cell fill should be shipped off-site to a licensed disposal facility.

### IV. CONSOLIDATION OF CONTAMINATED MATERIALS ON THE SITE

- A. Contaminated materials within the site boundary can be considered for reconsolidation for cleanup purposes by the site remediator.
- B. The ODH opposes any materials being brought onto the site from elsewhere, whether or not owned by the site owner, since this in our view is disposal and would be prohibited by Ohio Revised Code, division B of section 3701.914, which provides that
  - 1. "no person shall treat, recycle, store or dispose of low-level waste except at a facility that is licensed for treatment, recycling, storage, or disposal of that waste under the Atomic Energy Act of 1954..."
  - 2. ORC section 3701 provides that the Ohio Director of Health may request the Ohio Attorney General bring an action for civil penalties against any person violating section 3701.914 (B).
  - 3. It is the ODH (and Attorney General's) opinion that ORC 3701.914 (B) would not be triggered if the NRC allowed consolidation of on-site waste into an on-site cell.

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4. According to Ohio EPA, the agency considers waste moved around on-site as remediation or reconsolidation in the following cases:
  - a. The action is proceeding pursuant to an order of the director of OEPA, (enforcement order, closure plan, RCRA corrective action order, Rule 3745-27-13 authorization);
  - b. no new waste is being brought to the site;
  - c. no additional land is being used for the purpose of complying with the order; and the reconsolidation of waste occurs within the existing limits of waste placement or area of contamination;
  - d. at a solid waste facility, any hazardous waste discovered on-site is disposed of off-site.
5. If the foregoing are met OEPA considers reconsolidation as part of the closure of an existing solid waste facility (open dump) rather than as creating a new disposal site..

#### V. REEVALUATING SITE USE RESTRICTIONS

- A. If the licensee proposes to change the use or otherwise transfers or sells the property, the NRC license should go with the transfer or sale to the new party, who should assume the former licensee's obligations, including financial surety.
- B. The restrictions are reevaluated before the transfer or use is permitted.
- C. The Ohio Department of Health and the Ohio EPA should be given notice of the proposed restricted use change and should participate in the reevaluation as cooperating agencies.

#### VI. SITE RESTORATION AND MAINTENANCE

- A. A clean cover should be applied to a depth that would shield inadvertent intruders from direct radiation to the level agreed upon for the restricted or unrestricted use

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agreed upon.

- B. Restrictions on uncovering, breaching, or intrusion into the cell should be made a part of the NRC license.
- C. Restrictions ensuring the integrity of the cell should be made part of the deed and plat map filed with the county recorder's office.

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ATTACHMENT 2

Subject: OHIO DEPARTMENT OF SPECIFIC COMMENTS TO  
CHEMETRON SITE REMEDIATION PLAN

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1. Sec. 1.1 - Indicates that the sites "will be decontaminated and released for unrestricted use." If the material is to remain on site there should be some period of post-closure monitoring and, perhaps, some plan for any post-closure remediation that may become necessary.
2. Sec. 1.3 - Indicates that NUREG/CR-5849 will be used as guidance in this plan. There are inconsistencies in the definitions found in this document, other documents referenced, and the plan. (Example: see *Remediation*)
3. Table 1-4 and Figure 3-13 - indicates that there some areas on the Bert Avenue site that have significant concentrations of U<sup>238</sup> above the 35 pCi/g being considered as a release level. This material should be separately remediated off-site and not be "blended" or "diluted" with less contaminated materials in a closure cell on-site. ODH has previously expressed concerns as to the actual homogeneity of the materials at both sites, and there would appear that there still remains sufficient uncertainty so as to rule out this blending. (See also Sections 3.5.1.1.1 and 3.5.1.2.5 relating to soils to be placed in containment cells.)
4. Sec. 2.1.1.1.1.1.1 - Should there be a requirement for a clay liner for materials to be disposed of at the Harvard Avenue Site?
5. Sec. 2.1.1.1.1.1.2 - Text of layers to be employed at Bert Avenue Site is inconsistent with diagram shown in Figure 2-5, "Typical Cap and Cell Layers". Clarification and consistency is required as to thicknesses to be employed.
6. Sec. 2.1.1.1.1.2.10 - While it is understood that the stormwater control drainage systems are man-made structures, does the presence of such a water conduit between the water table and the bottom of the waste layer need to be taken into account when looking at the requirement of 10-feet (NRC) or 15-feet (OEPA) of vertical isolation?
7. Sec. 2.1.1.1.1.2.11 - Ground water is reported as 640 feet msl, yet cross-sections indicated in figures 1-10, 1-11, 1-12, 1-13, and 1-14, as well as the groundwater contours indicated in figures 1-16 and 1-17 would appear to indicate groundwater levels exceeding 660 feet msl. This would appear to indicate that the bottom of the waste layer should be no lower than approximately 685 feet msl, not the approximate 670 feet msl indicated in figure 2-3.
8. Sec. 2.1.1.1.1.2, Activity I, Task 1 - ODH has repeatedly expressed concerns regarding the adequacy of hydrogeological characterization, and wish to emphasize the opinion that additional data is required for the Bert Avenue site.
9. Sections 3.5.1.1.2, 3.5.1.2.1, and 3.5.1.3.2 - It is understood that the responsible parties are desirous of keeping costs as low as possible for this remediation effort and that this is a primary driving force in requesting the on-site containment cells. However, it would appear that the intent of this remediation option is to provide a disposal option for the high-volume, low-activity soils at the two sites. As such, any additional waste produced as a result of decontamination efforts -- such as the concrete, cinder blocks, railroad ties, etc. -- should not be disposed of in these cells. Such decontamination wastes are, in fact, low-level radioactive waste and should be disposed of in a proper, licensed disposal facility. The acceptance of this remediation option should not be construed as blanket permission to use the containment cells for the disposal of any other radioactive waste from these remediation efforts
10. ODH had previously commented on apparent discrepancies relative to the RESRAD model and the use of default parameters that may be inconsistent with the sites involved. Have these concerns been addressed?