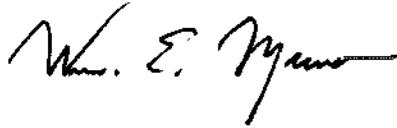


**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

Date: June 7, 1999

Subject: Response to National Remedy Review Board Recommendations on the Ottawa Radiation Areas, NPL-8, Superfund Site in Ottawa, LaSalle County, Illinois

From: William E. Muno, Director
Superfund Division



To: Bruce Means, Chair
National Remedy Review Board

The purpose of this memorandum is to provide a response to the July 1, 1998 memorandum issued to Region 5 regarding the National Remedy Review Board's (NRRB) recommendations on the Ottawa Radiation Areas, NPL-8, Superfund Site. Region 5 has worked closely with the State Agencies on addressing the recommendations received from the NRRB. In addition, I have given substantial weight to the NRRB's recommendations.

The NRRB's recommendations were contained in five bulleted items. Each recommendation is identified below, with Region 5's response to those parts of the recommendation outlining a specific matter for consideration.

First bullet

EPA Directive 9355.7-04, "Land Use in the CERCLA Remedy Selection Process" (May 25, 1995), emphasizes the importance of stakeholder participation in determining reasonably expected future land use. State input is particularly important at this site given that the State has several roles (i.e., property owner, Natural Resource Trustee, regulator). However, the Region has been able to elicit only limited information from the State on this issue. The Board encourages the Region to continue working closely with the State to determine their position, as future land use is critical to this cleanup decision.

Since the NRRB meeting in June 1998, the Region has met with the State several times and emphasized the need to have State input on future land use at the property. The U.S. EPA received a letter on September 4, 1998 from the Illinois Department of Natural Resources (IDNR), who oversees the management of State-owned property, indicating the State's future plans for the property. Even though the State has no immediate plans for the property, the IDNR emphasizes that the property has been designated as the Fox River State Park and is included in future plans for North Eastern Illinois recreation. The letter goes on to point out the location of the property at the confluence of the Fox River and the Illinois & Michigan Canal State Trail, and thus falls into an area that is being developed for recreation and public use, and certainly will continue to be considered for development in the future. The letter also indicates the potential development of ancillary resources in the park including campgrounds, picnic facilities, showers, toilets, and staff residences. A copy of the letter is attached.

Second bullet

Based on available State and other stakeholder input, the Board does not believe a recreational use scenario at this site is unreasonable. In addition, the Board acknowledges that there is a broad range of restoration and habitat management options available given such recreational use. With this in mind, the Board believes that the proposed "high-end" recreational use scenario (e.g., a park manager living on the site or prairie habitat) may not be appropriate given the site's past use. Further, given past site use and the need for institutional controls, under any clean-up scenario that leaves waste in place, the proposed ten foot excavation depth across the entire site appears excessive. The region should better justify in its decision documents whatever excavation depth(s) it selects.

The September 4, 1998, letter, mentioned above, outlines a future-use of the property consistent with the Region's projection of high-end recreational use. The Region has approached the State for additional details on their plans for the property. The IDNR responded that while firm on its stance that the site will be developed for recreational use in the future, it could not supply specific plans in regard to locations for river access, park facilities, and ancillary structures. Instead, the IDNR preferred to support a remedial option that provided them with ample flexibility to develop the property as need be in the future. The Region continues to believe that the 10-foot excavation is the most effective alternative based on this future land-use and after analysis of the nine-criteria. While a number of the remedial alternatives are protective, the 10-foot excavation provides the IDNR with substantially more flexibility for developing the property than capping the site or a 5-foot excavation, while providing a more cost-effective alternative than the complete excavation. The Proposed Plan and Record of Decision for the site will include in-depth discussions of the justification for the 10-foot excavation.

Third bullet

The site package and Regional presentation did not provide information sufficient to determine whether soil contaminants may in the future leach into potable ground water. The Board recommends that the Region more fully explain in its decision documents the relationship of contaminated soil to potable ground water, including the relationship of the perched aquifer to the deeper aquifer. It should also consider using dilution and attenuation factors or other modeling to evaluate whether the remedy will be protective for ground water over time. The Region should consult Section 2.5 of the "Soil Screening Guidance: Technical Background Document" (EPA/540/R-95/128) for further guidance.

The remedial investigation (RI) discovered two separate groundwater zones, a perched groundwater zone and a deeper groundwater zone. The perched groundwater zone appears to be an artifact of the landfill itself. The landfill was originally a series of clay pits that were subsequently filled in with debris. Water apparently percolates thru the relatively unconsolidated fill material and gets trapped by a clay layer that exists at the bottom of the pits. The perched groundwater zone is limited in size and volume and is not considered to be a potable ground water source by the Agency. The deeper groundwater zone located in the St. Peter and

Galesville sandstone units is considered to be the regional aquifer and a potable source of ground water for the area.

Current data from the RI found no relationship between the two aquifers. Monitoring of the deeper groundwater zone will be part of any future remedial activity at the site. Five year reviews will provide an excellent opportunity for the Agency to evaluate the monitoring data to determine that the proposed remedy remains protective and if additional study or modeling is needed to determine if a relationship has been established and contamination from the perched zone has migrated to the deeper zone.

Fourth bullet

The Region's information package indicates that the Region expects significant contaminated soil volume reduction through the use of a segmented gate system (SGS). Based on experience at other sites, the Board believes these estimates may be optimistic. The Board recommends that the Region explain in its decision documents that the field documented volume reduction associated with SGS ranges from approximately twenty percent to sixty-five percent.

Assumptions made concerning volume reduction using the segmented gate system (SGS) were necessary to develop cost estimates. The Region believes that some methodology is needed for volume reduction, because the main cost of the clean-up is the transport and disposal of the radioactive waste to the Envirocare facility in Utah. However, the Region was aware of some of the concerns regarding the efficiency of the SGS. The Region looked into the possibility that the SGS would not be effective for any removal scenarios and developed cost estimates for complete removal with no volume reduction for each of the removal scenarios. Even with this possibility the estimates fell within the +50% to -30% range for accuracy of cost estimates in the FS.

In addition, the region plans to conduct a treatability study or field test to determine the effectiveness of the SGS. It should also be noted that for all the removal options, especially the removal of 5 feet of material, the cost effectiveness of mobilizing the SGS and its efficiency will be compared to utilizing other survey techniques, i.e. manual monitoring, for volume reduction.

Fifth bullet

The Region should clarify in its decision documents whether the sheet piles identified in alternatives 2 and 3 are intended to provide structural stability for the cap, or whether the Region intends them to act as a barrier to prevent migration of perched ground water to the Fox River. Should their purpose be the latter, the Board questions why the Region did not include them in other alternatives.

Initially, the sheet piles were included in the capping alternatives to provide structural stability and erosion control. Based upon the NRRB's recommendation and further reconsideration, the sheet piles may also act as a barrier to help prevent migration of perched ground water to the Fox River. However, there is no evidence at the site that indicates that erosional controls are needed or that the perched water is migrating into the Fox River. Therefore, the Region has removed the

sheet piling component from the FS and believes that a better determination can be made for the need for erosional controls or a barrier for perched water migration as part of normal operation and maintenance and five-year reviews of the site.

Attachment



ILLINOIS
DEPARTMENT OF
NATURAL RESOURCES

524 South Second Street, Springfield 62701-1787

RECEIVED
SEP 11 1998

SUPERFUND DIVISION
OFFICE OF THE DIRECTOR

Jim Edgar, Governor ● Brent Manning, Director

September 4, 1998

William Muno, Director
Superfund Division
U.S. Environmental Protection Agency
77 West Jackson Blvd.
Chicago, IL 60604-3590

RE: Ottawa Radiation Site NPL #8
Dayton Township, LaSalle County, Illinois
Fox River State Park

Dear Mr. Muno;

I felt it was necessary that I write you directly after receiving correspondence from you regarding NPL 8, one of the Ottawa Radiation Areas owned by the State of Illinois and hearing a report from John Comerio, Deputy Director of this Department.

Significant attention has been given to future use of the state-owned property on the Fox River. As you know, in times past that property was designated as the Fox River State Park and that it is, now, largely unused. Though there are no immediate plans for the redevelopment of recreational resources and opportunities at the property, I am writing to let you know how I see this property fitting into the future of North Eastern Illinois recreation.

Beginning in the earliest years of Governor Jim Edgar's administration, the Illinois Department of Natural Resources embarked on a program of trail development. Notable successes are the Illinois and Michigan State Trail that has an Ottawa Illinois component. The ultimate goal is to link state trails into a comprehensive system. The state owned property along the Fox River near Ottawa will be developed for recreation; the only question is when the development will be initiated.

Illinois' trails are not limited to the bike and hike paths that are now being constructed around Illinois. The State of Illinois began planning for canoe trails and enhanced river access in 1996. The Illinois Conservation Congress in 1997 recommended that the state develop canoe trails and develop public access to water based recreational opportunities. Our planning effort will complement the land-based system now in development. It is my hope to have the planning and conceptualization for the canoe trail system complete in this fiscal year.

A keystone of the canoe trails will be the Fox River. It is a major corridor to northern parts of the state and is heavily used by recreationists. Ottawa's location at the confluence of the Illinois and

Fox Rivers as well as the I & M Canal State Trail means that the state property in the area must be considered for future development and public use.

Concomitant with the canoe trail development will be the construction or renovation of ancillary resources intended to enhance recreational opportunities at the property. These include campgrounds, picnic facilities and other supporting structures like showers and toilets. Though DNR is moving away from having staff residences on park property, it is reasonable to assume that there will be a need for buildings and development that entail excavation of soils. Furthermore, staff may be permanently assigned to the park as demand for services increases.

We are now faced with the requirement that remediation activities at NPL #8 be conducted to maximize the state's flexibility because of these plans for recreation and trail development. In my earliest correspondence to the USEPA I stated that the site must be cleaned up to assure the public safety. My position has not changed.

Sincerely,


Brent Manning
Director

cc: Al Grosboll, Governor's Office
Beth Wallace, Assistant Attorney General

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