140744
No 040

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

DEC 12 1989

Mr. John N. Hanson
Beveridge & Diamond, P.C.
1350 I Street, N.W., Suite 700
Washington, D.C. 20005

Dear Mr. Hanson:

Thank you for your letter of November 22, 1989, reiterating your views expressed in the November 13 meeting regarding the cleanup of Crab Orchard National Wildlife Refuge. As I mentioned to you in the meeting, the Department of Interior will take your views into consideration when making its decision on remedy selection.

To ensure that the Environmental Protection Agency has the benefit of your comments, we are forwarding a copy of your letter to EPA's project manager, Mary Logan. If we determine additional meetings are needed, we will not hesitate to call.

We have subsequently received a copy of Sangamo's comments on the proposed remedial action plan for the "PCB Areas" on the Refuge. We appreciate your transmitting this information to us.

Thank you again.

Sincerely,

Jonathan P. Deason, Director
Office of Environmental Affairs

cc: Mary Logan, EPA, w/c of inc.

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November 22, 1989

VIA HAND DELIVERY

Mr. Jonathan Deason
Office of Environmental Project Review
U.S. Department of the Interior
18th and C Streets, NW, Room 2340
Washington, DC 20240

Dear Mr. Deason:

I write to thank you on behalf of Linda Jennett and Sangamo Weston, Inc. for the time you and the other Interior Department representatives spent with us on November 13. We appreciate the opportunity to share with you our views concerning which remedial alternatives make sense for the Crab Orchard National Wildlife Refuge, and we hope that you found the session informative. It was also helpful to start discussing the issues of cost allocation, performance of the remedial work, and pursuit of other potentially responsible parties.

Remedy selection is the most immediate and ultimately the most important issue facing the Department of the Interior ("DOI") regarding the Crab Orchard sites. Because Crab Orchard is a federal facility, DOI has a substantial role to play in selecting the remedies to be implemented there. For the reasons discussed on Monday and summarized below, we urge DOI to express its support for a remedy that accounts for the actual circumstances of Crab Orchard, including the views of local citizens, better than EPA's extreme proposal.

As the risk assessment in the Remedial Investigation ("RI") showed, there is no pressing health or environmental issue on the seven Refuge sites. The eastern end of the Refuge where the sites are located is geographically isolated, and access to the area is restricted. The sites have existed for the past 30 or 40 years, with no evidence that they have caused any adverse effects in humans or wildlife. In addition, both the Metals Areas and

the so-called "PCB Areas" (which also contain heavy metals) involve substances that tend to adsorb tightly to soil particles, which means that they do not significantly migrate except to the extent that the soil itself is transported, e.g., in surface runoff.

The primary point is that nothing about the Crab Orchard sites merits the drastic remedy proposed by EPA. Site risks can be easily and reliably controlled through the use of the treatment technologies of stabilization and solidification, and secure containment in engineered containment structures will provide an additional level of long-term protectiveness. Wildlife would not have any access to soils containing metals or PCBs following completion of such a remedy. For your information, I enclose copies of a diagram and a photograph of a typical TSCA landfill, so you can see how protective and unobtrusive such a structure would be. The structure could be located in the Area 9 Building Complex, which is already developed and being used for industrial purposes. It would also be possible to retrofit and use the concrete "water tank" near Area 9 for containment of certain soils, thereby addressing the need of the Fish and Wildlife Service ("FWS") to fill in that structure.

Stabilization and solidification are demonstrated technologies with respect to the long-term immobilization of heavy metals, and their use for the immobilization of soils containing organic compounds is growing. EPA has selected stabilization for use at several CERCLA sites with PCBs, such as the Sullivan's Ledge site in Massachusetts; the York Oil site in New York; the Imperial Oil/Champion Chemicals site in New Jersey; the Liquid Disposal site in Michigan; the Pacific Hide & Fur site in Idaho; the Mowbray Engineering site in Alabama; the Pepper's Steel and Alloy site in Florida; the Midco site in Indiana; and the Commencement Bay/Nearshore Tidal Flats site in Washington. Moreover, where volumes of soil or waste have been large or the risks have not warranted treatment, EPA has selected simple containment as the remedy, such as at the G.E. Moreau and Ludlow Sand and Gravel sites in New York; the Renora and Kin-Buc Landfill sites in New Jersey; the Kane & Lombard site in Maryland; the Newport Dump site in Kentucky; and the Envirochem/Northside Sanitary Landfill site in Indiana. At the MGM Brakes site in California, public opposition to incineration was a driving force behind selection of the off-site containment remedy.

In EPA's "Draft Guidance on Selecting Remedies For Superfund Sites With PCB Contamination" (Sept. 22, 1989) ("Draft

Guidance"), stabilization is recognized as having the capability of "preventing leaching of the PCBs even under extreme environmental conditions." (Draft Guidance, p. 26.) The FS discussed the effectiveness of stabilization and solidification in some detail; further detail is provided in the letter from O'Brien & Gere to James C. Gritman, the Regional FWS Director. Another copy of that letter is attached for your information. Sangamo's comments for the Crab Orchard administrative record will also contain information on stabilization and solidification technologies.

As we discussed during our meeting, incineration is not only unnecessary to address the easily-handled risks on the Refuge, but it poses its own set of concerns:

-- Incineration does not address heavy metals. Wherever metals are present above cleanup levels, they will have to be securely contained and monitored, no matter what happens to the PCBs. Moreover, where metals are located along with PCBs in soils to be incinerated, the metals in the air emissions would need to be rigorously controlled, and the incinerator ash would require containment. About 3,620 cubic yards of soils contain both metals and PCBs. (Another 26,600 cubic yards contain only metals, including the Metals Areas sites.)

-- Because mobile incinerators are relatively new and incorporate technically complex subsystems for feed handling, combustion, emissions control, and residue and ash handling, they have tended to be out of operation between 30% and 50% of their scheduled operating time.[1/] Site-specific adjustments are typically required.

-- The proposed incineration remedy would take up to five years, with hundreds of days of actual burning at the Refuge.

1/ See, e.g., USEPA, Shirco Infrared Incinerator System Applications Analysis Report, EPA/540/A5-89/010, June 1989; USEPA, Operating Experience with EPA's Mobile Incineration System, EPA/600/D-88/034, Feb. 1988.

-- Even after test burns, the incinerator would need to be intensively monitored to ensure acceptable operation. Yet, there are no emissions standards for many pollutants.

-- If incinerators are not carefully operated and closely monitored, they can emit toxic products of incomplete combustion ("PICs") into the air. Routine air pollutants from incineration, such as hydrochloric acid, require emissions scrubbers that produce sludge. The sludge itself requires careful management.

-- The proposed incineration remedy will cost about $25 million (excluding the Metals Areas), draining off DOI resources that could be used for other purposes elsewhere on and off the Refuge (since DOI has substantial responsibility for remedial costs).

-- Several segments of the local populace vehemently oppose the proposed incineration remedy. Not only are local concerns important insofar as they are supposed to be expressly considered during Superfund remedy selection, but strong local feelings against incineration also could result in interference with implementation.

I enclose for your information a summary of the Remedial Investigation and Feasibility Study that provides basic information on the RI results and summarizes the key analyses of the Feasibility Study ("FS") in light of the CERCLA remedy selection criteria. This summary illustrates that both the stabilization/containment remedy and the incineration remedy provide overall protection of human health and the environment and comply with applicable or relevant and appropriate requirements of other laws ("ARARs"). Incineration is marginally better than solidification/containment of PCBs on the balancing criteria of long-term effectiveness/permanence and reduction of toxicity, mobility, or volume, but substantially worse on the criteria of short-term effectiveness, implementability, and cost. This point is illustrated in the table showing O'Brien & Gere's ranking of the Consolidated Remedial Alternatives under the five balancing criteria. This table is located at the end of Attachment A to the letter from O'Brien & Gere to James Gritman; a separate copy is also attached for your convenience.

EPA's own Draft Guidance (p. 32) explicitly recognizes that the tradeoffs among these criteria will vary depending on site characteristics such as concentration and volume of PCBs, site location, and presence of other contaminants. At Crab Orchard, the high volumes of soil containing relatively low concentrations of PCBs, the isolated nature of the sites, the presence of heavy metals commingled with PCBs, and the substantial local opposition to incineration leads the balance away from the "burn everything" alternative and towards one of the other available alternatives.

One of the alternatives that we discussed at the meeting was a scaled-down usage of destructive treatment that focused on destruction of the "hot spots" over about 5000 ppm PCBs, with stabilization and containment of the remainder. These "hot spots" constitute the highest concentrations of PCBs on the Refuge, and involve about half of the entire mass of PCBs on the Refuge in approximately 2500 cubic yards of soil. Therefore, an alternative that used destructive treatment for these "hot spot" areas would destroy about half of the Refuge PCBs at a cost only 45% greater than the stabilization plus containment remedy (about $9 million total). Put simply, half of the PCBs on the Refuge could be destroyed for about $3 million; the other half, which is distributed throughout 35,890 cubic yards of soil, could be destroyed only at a cost of an additional $20 million. If some component of PCB destruction is perceived to be necessary for the Refuge remedy, this focused approach is available. A chart showing the various alternatives and their costs, prepared by EPA for its public meetings, is enclosed for your information.

The lower volume of soil to be burned in such a composite remedy would decrease many of the concerns noted above. It would also allow substantial flexibility. For example, incineration could occur at a commercial off-site facility at only a slightly higher cost, or chemical dechlorination could be used on-site instead of incineration. Chemical dechlorination has been selected for use on small soil volumes at the Wide Beach Development site in New York, the Sol Lynn site in Texas, and the Re-Solve site in Massachusetts. The use of off-site incineration or alternative destruction methods for this smaller volume would address local concerns.

As we expressed to you at the meeting, if the selected remedy for the PCB Areas represents a proportional and reasonable response to the problem, Sangamo will be more willing to assist directly in prompt performance of the remedy at the Refuge. Assistance to DOI with respect to the Metals Areas as well as the PCB Areas may also be available. In addition, the type of remedy

selected may influence Sangamo's position during cost allocation discussions.

If a grossly disproportionate remedy were selected, however, Sangamo would have to seriously rethink its cooperative relationship with DOI. In that event, the remedy could take many additional years to achieve. Moreover, Sangamo would make every effort to ensure that DOI bears its full share of responsibility for remediation of the PCB Areas, taking into account the lack of foundation for the selected remedy, DOI's failure to seek out other potentially responsible parties, and DOI's status as the current owner, past owner, and past active operator of these sites. We would prefer to continue working with DOI and avoid such an adversarial relationship.

Given the complexity and importance of the issues raised at the November 13 meeting, we would like to schedule a series of additional meetings with you and your staff, including staff from the Solicitor's Office and the Regional Office of the Fish and Wildlife Service as appropriate, to delve into these matters in greater detail. If you are interested in discussing remedy selection further, the next meeting should take place before EPA and DOI proceed with remedy selection. The remaining issues can be addressed as soon as possible after DOI determines its position on the remedy for the PCB Areas.

If you have any questions concerning the foregoing or any of the items discussed on November 13, please let me know. Thank you again for your time and your attention to these important matters.

Very truly yours,

John N. Hanson

Enclosures
cc: Lou Gallegos
Mary Josie Smith
Josefa O'Malley
Pete Escherich
Jean Sutton
Linda Jennett

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