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Monsanto

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May 15, 1986

Mr. James M. Moore, III, Engineer
Industrial Branch
Water Division
Alabama Department of Environmental Management
1751 Federal Drive
Montgomery, Alabama 36130

Dear Mr. Moore:

Please find a copy of the proposed Snow Creek Sediment Removal Protocol attached for your review. We will discuss at the meeting scheduled for May 27 at 11:00 A.M. in Anniston.

Call if you have questions.

Sincerely,

Jerry L. Brown
Technology & Engineering Superintendent

LETTER/sag

Attachments

cc Mr. Craig Kneisel

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PLAINTIFF'S EXHIBIT 4

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SNOW CREEK TRIBUTARY
SEDIMENT REMOVAL

Three sections of the drainage ditch and Snow Creek are proposed for sediment removal. The sediment removal will consist of dredging and disposal of bottom sediments, which will also effectively deepen and improve the channel of the drainage ditch. This plan also proposes the installation of a culvert in Section 1 (described below).

Section 1: Length of drainage ditch from sampling site 1 to sampling site 2. Effectively, this dredging operation will encompass the length of the ditch from the emergence of the ditch from the culvert under the Bethel Missionary Baptist Church to the culvert under Route 202, 10th Street. This distance is approximately 500 feet.

Section 2: Stretch of ditch between the Southern Railway railroad tracks and 11th Street, from where the ditch passes under the tracks, to the confluence of the ditch and Snow Creek. This distance is approximately 1200 to 1500 feet.

Section 3: Section of Snow Creek from the confluence to a point approximately 100 feet downstream.

Local authorities in Anniston will be contacted to arrange for necessary easements, approvals, and access rights to properties which will be affected by the proposed dredging operation.

The necessary contracts will be executed with an experienced contractor to carry out the proposed operations. All aspects of the operation will be funded by Monsanto Company, except for any analytical work done by regulatory agencies.

The dredging will be done by an experienced contractor. The specific heavy equipment and the dredging procedure will be specified to the contractor. The creek bottoms (sediments) will be dredged to a depth of approximately 12 inches or to bedrock and to a width defined by the width of the water in the ditch and creek. The dredging operation should proceed in a downstream direction to minimize recontamination by resedimentation of particulate material suspended during the dredging.

The dredged material is to be deposited on the creek bank for dewatering. (The dewatering is anticipated to take two days at the most.) Following dewatering the dredged material will be loaded and transported to a secured area at the Monsanto Company landfill. The material will be stored at this location only long enough to sample the dewatered sediment and to perform analyses to determine the average concentration of PCBs. (See below.)

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After the dredging operations in the three sections of the drainage ditch and Snow Creek have been completed, the ditch and creek bottoms will be sampled in accordance with the sampling method developed for the 1985 program. Sampling sites will be selected to roughly correspond to sampling points 1, 2, and 3 of the original protocol, with an additional point to be sampled in section 2 of dredged ditch, between 11th Street and the railroad tracks. These samples will

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be shipped to the Environmental Sciences Center, Monsanto Company, St. Louis, MO., for expeditious analysis to verify the results of the dredging operation. This laboratory will be notified of the dredging schedule, to ensure that the analyses will be done as soon as possible. Results will be communicated by Monsanto Company to the Alabama Department of Environmental Management and the Alabama State Attorney General's office. Split samples will be made available to either agency upon prior request. Verification that the residual sediments in the ditch and Snow Creek contain less than 50 ppm PCBs will signal successful completion of the dredging operation.

Following acceptance of the results of the dredging program, no further action will be taken at sections 2 and 3 of the dredged ditch. The dredging will have accomplished an effective channelization of the ditch and Snow Creek, which will improve the water carrying capacity of the waterways. However, in section 1, a concrete culvert will be installed to completely enclose the ditch from its emergence from under the church to 10th Street. The culvert will be covered with backfill and seeded. Completion of this operation is predicated upon receiving proper approval from the landowners along this section of the drainage ditch.

The dredged materials will be transported to a temporary storage site at the Monsanto Company landfill site. The site will be a level section to eliminate risk of downhill migration of the stored material. The stored material will be covered with polyethylene sheeting or some other water-impervious material to prevent runoff, in the event of rain, and dispersal by wind. The covering will be secured with sandbags to prevent lift off caused by wind. The temporary storage site will be inspected daily to ensure the integrity of the protective cover.

The stored, dewatered dredgings will be sampled and analyzed by Monsanto Company to determine final disposition of the material. The sampling will be carried out in accordance with a scheme published in United States Environmental Protection Agency document EPA-560/5-85-026, "Verification of PCB Spill Cleanup by Sampling and Analysis." A 6 group compositing plan for 19 sample points, shown in the attached figure, will be used to statistically sample the dredged materials. The sampling plan is based on a hexagonal grid system, centered on the center of the stored sediments. The nineteen samples will be composited as shown in the figure. The six composited samples will be shipped to the Environmental Sciences Center, Monsanto Company, St. Louis, MO., for analysis for PCBs.

Sampling will be done using 1" x 18" stainless steel core tubes, as described in the protocol for the 1985 sampling program. The labeling, storage, shipping, and quality assurance aspects of that protocol will also be employed during the sampling of the temporarily stored material.

It is felt that this sampling protocol for the stored material will give a valid assessment of the PCB concentration of the bulk of the material. The dredging, loading, and dumping operations preceding this sampling should thoroughly mix the dredged materials. The six composited samples ultimately analyzed will therefore represent the bulk of the material. The analytical results for the six composited samples will be averaged to determine the average PCB concentration of the temporarily stored material.

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The results of the analyses of the temporarily stored material will determine the ultimate disposition of the sediments. If the average PCB concentration of the material is less than 50 ppm, the material will be moved to a cell at the Monsanto Company landfill at the Anniston Plant.

If the material is determined to contain PCBs at an average concentration of greater than 50 ppm, the material will be treated as PCB-contaminated waste. Monsanto Company will arrange to have the material disposed of at an EPA-approved PCB landfill in accordance with all applicable federal regulations. The landfill site is anticipated to be the Emelle, Alabama landfill, operated by Chemical Waste Management. However, Monsanto Company reserves the right to make other arrangements with an alternate permitted disposal site, if necessary. Proper certificates of disposal will be obtained to verify the ultimate disposal of the sediments.

In either case, a few inches of soil from the temporary storage site will be included along with the dredged material, to ensure that no PCB contaminated soil remains at the temporary storage site.

Since the PCB concentrations of the sediments during the dredging and transporting operations will be unknown, prudence dictates that all equipment involved in these operations be decontaminated in accordance with Section 761.79(b) of the federal PCB regulations. This decontamination involves swabbing surfaces that have contacted the sediments with a solvent in which PCBs are soluble to at least 5% by weight. Kerosene is one such solvent. The excess solvent and any mops, rags, etc. must be collected and disposed of as PCB contaminated material.

The dredging and transporting operations should not involve personal contact with the sediments. Normal precautions should be exercised. If the sediments are contacted, the affected body parts should be washed thoroughly with soap and water. Affected clothing should be laundered.

Sampling the temporarily stored sediments will probably involve contact with the material, including climbing on the piled dredgings. Personnel involved in this sampling should wear protective gloves, protective clothing, and boots. Since this will be an open air procedure, respiratory protection will not be necessary. If the protective clothing is of the disposable type, it should be collected and disposed of as PCB-contaminated material in accordance with federal regulations. This disposal is precautionary, since PCB contamination of the clothing is unlikely.

An MSDS for polychlorinated biphenyls is attached for information on occupational control procedures.

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